Health & Safety Manual

DOCUMENT CHANGE FORM

Document Approval

Name	Signature	Date
Senior Management		

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1 Management Commitment

1.1 HEALTH & SAFETY POLICY

1.1.1 COMMITMENT

Goose Mechanical Inc. believes that at every level, health and safety is of extreme importance. Goose Mechanical Inc. is committed to a health and safety program that protects our workers, supervisors, managers, others (i.e., contractors) and the general public who enter into our workspace. The safety policies and procedures will comply with all local legislation and regulations applicable to worker safety.

All levels within the company are responsible and accountable for health and safety performance. This responsibility begins with Senior Management and continues to each level including even the newest worker. This responsibility cannot be delegated or otherwise set aside. Active participation by everyone, every day, in every job is necessary for the health and safety excellence that this company expects. Health and safety excellence includes the protection and maintenance of the highest degree of physical, psychological, and social well-being of all employees. Our goal is a healthy, injury-free workplace for all workers. By working together, we can achieve this goal.

1.1.2 RESPONSIBILITIES

Management will ensure:

- The health, safety, and welfare of workers at the work site.
- Workers are aware of their occupational health and safety rights and duties.

Supervisors will ensure:

- Workers work in accordance with safety guidelines
- Workers are not subjected to and do not participate in harassment or violence at the work site.

Workers will:

- Protect the health and safety of themselves and other people at or near the work site.
- Use all devices and wear all personal protective equipment for the worker's protection
- Refrain from causing or participating in harassment or violence.
- Report concerns about an unsafe or harmful work site act or condition that occurs

In addition, employers, supervisors, and workers will:

- Cooperate with any person exercising a duty imposed by OHS, and
- Comply with provincial OHS and any site policies, procedures, and codes of practice.

Workers at every level must be familiar with the requirements of provincial Occupational Health and Safety legislation as it relates to their work.

Senior Management	Date

1.2 ASSIGNMENT OF RESPONSIBILITY AND ACCOUNTABILITY FOR HEALTH & SAFETY

1.2.1 EMPLOYER & MANAGEMENT

Senior Management has the ultimate responsibility for the health, safety, and environmental management system. Senior Management is responsible for:

- Provide the economic and physical resources to implement and operate the health, safety, and environmental management system
- Establish annual health, safety, and environmental objectives.
- Identify to senior members of management their specific HSE responsibilities.
- Communicate with senior government, client and employee association officials to foster an environment complementary to the promotion of the health, safety, and environmental management system.
- Participate in major incident investigations that result in fatal or permanently disabling injuries and all major loss incidents.
- Review and evaluate remedial actions of all fatal, permanent, or temporary disabling and medical aid injuries and serious or major losses.
- Endorse the Health, Safety, and Environmental Policy Statement.
- Participate in formal safety functions at the worksite level.
- Complete management tours as outlined in the two-way communication of health and safety issues program in the training section

1.2.2 SUPERVISOR

Supervisors shall maintain a safe worksite for those who are under their supervision by:

- Directing and performing work in a safe manner, providing a good example to all workers.
- Knowing and applying the company's safety policies, procedures, and being aware of relevant government regulations.
- Encouraging worker safety involvement by demonstrating and communicating the company's commitment to safety.
- Providing supervision and on-the-job training for workers so that they are adequately qualified to perform their work.
- Providing appropriate and well-maintained equipment required to perform the job.
- Ensuring workers use PPE and providing workers with specialized PPE.
- Enforcing all established safety regulations and work methods, including the use of personal protective equipment.
- Taking disciplinary action as necessary to ensure compliance with the policies and regulations.
- Reporting all work-related incidents, injuries, and illnesses to the appropriate authorities.
- Providing workers with health and safety information.
- Providing workers with information concerning hazards of the jobs and tasks and how to avoid or control them.
- Ensuring hazard identifications are being conducted by workers on new sites, new tasks, or a change in the task operation.
- Striving to eliminate potential incidents, requiring inspections on unsafe practices, conditions, and hazards that require corrective actions.

- Ensuring equipment is available and well maintained, including assigning responsibility to the worker for equipment maintenance.
- Assisting workers who have exercised their right to refuse unsafe work by examining the situation and assisting in bringing control measures to eliminate or reduce the risk to an acceptable level.
- Complete management tours as outlined in the two-way communication of health and safety issues program in the training section

1.2.3 WORKERS

Workers will perform their work in such a manner that will protect their health and safety and that of their co-workers, the public, and the environment. This will be done by:

- Becoming familiar with the company's safety program.
- Following safety standards and safe work, legislative and regulatory requirements.
- Reporting all incidents, hazards, and near misses to your supervisor as soon as possible.
- Participating in all required training
- Using relevant personal protective equipment (PPE) when required.
- Practicing good housekeeping practices.
- Refusing to perform work when unsafe conditions exist (as defined by provincial OH&S legislation) as well as refusing to perform work they are not competent to perform.

1.2.4 CONTRACTORS, SUBCONTRACTORS, AND CONSULTANT RESPONSIBILITIES

- Follow safety program unless theirs exceeds it.
- Comply with all current legislation pertaining to the work being performed.
- Ensure workers are competent or under the supervision of a competent worker.

1.2.5 VISITORS RESPONSIBILITIES

- Signing in on Visitor Forms at required locations.
- Visitors must be accompanied by a company designate at all times, unless otherwise stated.

1.3 DUE DILIGENCE

Due diligence means that everything reasonable was established and implemented in order to prevent a violation or incident.

To exercise due diligence, Goose Mechanical Inc. must implement a plan to identify possible workplace hazards and carry out the appropriate corrective action to prevent incidents or injuries arising from these hazards. Ignorance of the law is not a defence, and due diligence is demonstrated by actions before an event occurs, not after.

Goose Mechanical Inc. will ensure to:

- Know the OH&S legislation and their health & safety responsibilities.
- Explain the health & safety responsibilities to all workers and ensure that they are understood.
- Educate workers on legislative requirements, company policies, procedures, rules, etc.
- Document the responsibilities of workers involved in safety-related areas and the accountability and responsibilities of all workers in the workplace.
- Keep up to date with the legislative changes and inform workers of legislative or company changes.
- Properly train workers, ensuring they are competent and have been trained to work safely and use the proper protective equipment.
- Keep records of the training each worker receives.
- Take disciplinary action when a worker violates safety procedures and document actions as they happen.
- Keep records to prove that the safety program has been established and implemented, and document program activity and improvements.
- Integrate safety into all aspects of the company's work.
- Monitor internal safety systems to ensure compliance with written policies and legislative requirements.
- Update the health & safety program and the due diligence records annually.

1.4 LEGISLATION

We do not expect our workers to have memorized all legislation word for word that may affect the day- today work processes, but we do expect that you are familiar with any that apply to the work you perform and know where to look for more information. Safety legislation is designed to protect workers, the public, and the environment. Compliance with the appropriate legislation is necessary to prevent fines, stop work orders, legal action, injury/illness, and death.

A copy of the Occupational Health and Safety Act, Codes and Regulations are in the office and are available for viewing during regular office hours. Also available are any standards or codes of practices adopted in the regulations that address work practices or procedures and that apply to the place of employment or to any work done there. A bulletin board is also used to post information on health and safety related information. Any changes that occur to legislation will be discussed with workers at Goose Mechanical Inc. safety meetings.

Each Government Occupational Health and Safety division have addressed specific topics in various acts and regulations. Listed below are the common acts and regulations that affect workers, employers, and suppliers. Goose Mechanical Inc. will meet the minimum requirement as set out by the following legislation.

1.4.1 OCCUPATIONAL HEALTH & SAFETY LEGISLATION

- Occupational Health and Safety Acts, Codes, and Regulations
- Labour Code
- Environmental Protection & Enhancement Act
- Canadian Human Rights Act
- Employment Standards Act
- Safety Codes Act
- Traffic Safety Act
- Workplace Hazardous Materials Information System (WHMIS)
- Workers Compensation
- Dangerous Goods Transportation & Handling Act
- Vehicle Inspection Regulation
- Canadian Standards Association (CSA)

1.4.2 ALBERTA OCCUPATIONAL HEALTH & SAFETY LEGISLATION

- Hazard Assessment, Elimination, and Control –AB OH&S Code Part 2: Sec 7-11
- Chemical & Biological Hazards, Harmful Substances – AB OH&S Code Part 4: Sec 16-43.1
- Confined Spaces – AB OH&S Code Part 5: Sec 44-58
- Cranes, Hoists, and Lifting Devices – AB OH&S Code Part 6: 59-114
- Dangerous Work – AB OH&S Act Part 4: Sec 31-36
- Demolition - AB OH&S Code Part 30: Sec 415-422
- Emergency Preparedness and Response - AB OH&S Code Part 7: Sec 115-118
- Entrances, Walkways, Stairways and Ladders - AB OH&S Code Part 8: Sec 119-137
- Excavating and Tunnelling - AB OH&S Code Part 32: Sec 441-464
- Fall Protection – AB OH&S Code Part 9: Sec 138-161
- Fire & Explosion Hazards – AB OH&S Code Part 10: Sec 161.1-176

- First Aid – AB OH&S Code Part 11: Sec 177-184
- Forestry – AB OH&S Code Part 34: Sec 518-525
- General Safety Precautions – AB OH&S Code Part 12: Sec 185-195
- Lifting and Handling Loads – OH&S Code Part 14: Sec 208–211.1
- Managing the Control of Hazardous Energy – AB OH&S Code Part 15: Sec 212–215.5
- Noise Exposure – AB OH&S Code Part 16: Sec 216-224
- Obligations – AB OH&S Act Sec 4 (1-2)
- Overhead Power Lines – AB OH&S Code Part 17: Sec 225-227
- Personal Protective Equipment – AB OH&S Code Part 18: Sec 228-255
- Powered Mobile Equipment – AB OH&S Code Part 19: Sec 256–290.2
- Oil and Gas Wells – AB OH&S Code Part 37: Sec 750-784
- Radiation Exposure – AB OH&S Code Part 20: Sec 291
- Rigging – AB OH&S Code Part 21: Sec 292-309
- Safeguards – AB OH&S Code Part 22: Sec 310-322
- Scaffolds and Temporary Work Platforms – AB OH&S Code Part 23: Sec 323-353
- Toilets and Washing Facilities – AB OH&S Code Part 24: Sec 354-361
- Tools, Equipment and Machinery – AB OH&S Code Part 25: Sec 362-385
- Tree Care Operations – AB OH&S Code Part 39: Sec 792-796
- Utility Workers- Electrical – AB OH&S Code Part 40: Sec 797-804
- Ventilation Systems – AB OH&S Code Part 26: Sec 386-388
- Violence – AB OH&S Code Part 27: Sec 389-392
- Working Alone – AB OH&S Code Part 28: Sec 393-394
- WHMIS – AB OH&S Code Part 29: Sec 395-414

1.5 FUNDAMENTAL WORKER RIGHTS

1.5.1 RIGHT TO REFUSE DANGEROUS WORK

Enables workers to refuse work if they reasonably believe there is an undue hazard at the work site or that particular work poses an undue hazard to themselves or others. "Undue hazard' in relation to any occupation includes a hazard that poses a serious and immediate threat to the health and safety of a person.

1.5.2 PROCEDURE FOR REFUSAL

As provincial legislation dictates, an employee can refuse hazardous work if, on reasonable grounds, they believe doing so would create an undue hazard to the health and safety of any person. All employees are expected to exercise their rights by following the steps listed below:

1. An employee who refuses to carry out a work process or operate a tool, appliance or equipment must immediately report the circumstances of the unsafe/hazardous condition to their supervisor or manager.
2. The event will be immediately investigated in the presence of the worker and a health and safety representative/committee member (if on is in place) and ensure that any unsafe condition is remedied without delay, or if in their opinion the report is not valid, must so inform the person who made the report.
3. In the presence of the worker that refuses to carry out the work process; operate the tool, machine or equipment; or perform a job task in the current conditions of the workplace, the Supervisor or Manager will investigate the matter in the presence of the worker who made the report and in the presence of:
    a. a representative or member of the committee (if one is in place).
    b. if there is no committee or health and safety representative, any other reasonably available worker selected by the worker
4. If the investigation does not resolve the matter and the worker continues to refuse to carry out the work process, operate the tool, appliance or equipment, or perform job tasks in the current workplace conditions, both the Supervisor, or company designate and worker must immediately notify management, who will investigate the matter without undue delay and issue whatever orders are deemed necessary.

1.5.3 ALBERTA OHS ACT- RIGHT TO REFUSE DANGEROUS WORK

Section 17 of the OHS Act enables workers to refuse work if they reasonably believe there is an undue hazard at the work site or that particular work poses an undue hazard to themselves or others. "Undue hazard' in relation to any occupation includes a hazard that poses a serious and immediate threat to the health and safety of a person.

An undue hazard is a serious and immediate threat to health and safety that the refusing worker actually observes or experiences at their work site.

General health and safety concerns are not dealt with under the work refusal process as they are not considered undue hazards. Examples of undue hazards include:

- Sudden infrastructure collapses that result in an unsafe physical environment.
- A danger that would normally stop work, such as broken or damaged tools/equipment, or a gas leak.

Worker obligations

Workers must report refusal and the reasons for it promptly. Report to their supervisor, employer or the employer's designate.

As much as possible, ensure refusal does not endanger the health and safety of others. For example, if safe to do so, place barriers around the danger to prevent others from being hurt. Throughout the work refusal process, cooperate with the employer as long as it is safe and reasonable to do so.

1.5.4 LEGISLATION REQUIREMENTS

- 31(1) Subject to this section and section 5, a worker may refuse to work or to do particular work at a worksite if the worker believes on reasonable grounds that there is a dangerous condition at the worksite or that the work constitutes a danger to the worker's health and safety or to the health and safety of another worker or another person.
- (2) A worker who refuses to work or to do particular work under subsection (1) shall promptly report the refusal and the reasons for it to the worker's employer or supervisor or to another person designated by the employer or supervisor.
- (3) If the employer does not remedy the dangerous condition immediately, the employer shall immediately inspect the dangerous condition in the presence of the worker, when it is reasonably practicable to do so and when the presence of the worker does not create a danger to the health and safety of that worker or of any other person, and one of the following persons, when it is reasonably practicable to do so and when the presence of that person does not create a danger to the health and safety of that person or of any other person:
    - if there is a joint worksite health and safety committee established under section 16, the co-chair or a committee member who represents workers;
    - if there is a health and safety representative designated under section 17, that representative;
    - if there is no committee or representative, or where no committee member or representative is available, another worker selected by the worker refusing to do the work.
- (4) The employer required to inspect under subsection (3) shall take any action necessary to remedy any dangerous condition, or ensure that such action is taken.
- (5) Until the dangerous condition is remedied, the worker who reported it may continue to refuse to work or to do particular work to which the dangerous condition may relate.
- (6) When a worker has refused to work or to do particular work under subsection (1), the employer shall not request or assign another worker to do the work until the employer has determined that the work does not constitute a danger to the health and safety of any person or that a dangerous condition does not exist.

1.5.5 RIGHT TO REFUSE FORM

Right To Refuse

Employee: _____ Position: _____

STEP #1: Employee reports the concern to their immediate supervisor.

I, _____, refuse to complete the act assigned by my supervisor. I believe that the act is likely to endanger my health and safety, or the health and safety of others, for the following reason:

- ☐ I am not properly trained for the job
- ☐ I do not have enough experience for the job
- ☐ I do not have the necessary skills for the job
- ☐ I do not have the necessary equipment for the job
- ☐ Physical or mechanical hazards
- ☐ Chemical hazards
- ☐ Biological hazards
- ☐ Other (please specify)

Detailed Explanation: _____

Employee's Signature: _____ Date: _____

To Be Completed By The Supervisor:

☐ I find that _____ has reasonable grounds for believing that the requested act is likely to endanger the health and safety of the employee or the health and safety of others. Therefore, I recommend that the following remedial action(s) be taken or I will take the following remedial action(s) so that the employee may resume safe work.

☐ I find that _____ does not have reasonable grounds to believe that the requested act is likely to endanger his/her health and safety or that of any other employee. Therefore I advise the employee to perform this act based on the following information.

Manager's Signature: _____ Date: _____

Employee's Signature: _____ Date: _____

1.6 FIT FOR DUTY

In order to maintain a safe working environment, it is essential that everyone can perform their duties associated with the assigned tasks. This is to ensure that all are physically fit to perform the duties safely without risk or harm to themselves or others.

Goose Mechanical Inc. will reserve the right to have an employee's duties and/or have the employee removed from the worksite if the employee's actions or behaviours are creating a position where they may be placing harm on themselves or others.

1.6.1 TRAINING AND QUALIFICATIONS

Goose Mechanical Inc. will ensure that employees are trained in all matters that are necessary to protect the health and safety, which begins work at the commencement of employment or when he/she is moved from one work activity or worksite to another that differs with respect to hazards, facilities or procedures.

Goose Mechanical Inc. will ensure that no worker is permitted to perform work unless the worker has the knowledge, has been trained and had sufficient experience to perform the work safely and in compliance with the OH&S Act and Regulations, or is under close and competent supervision.

1.6.2 GENERAL

All employees are expected to report fit for duty for scheduled work and be able to perform assigned duties safely and acceptably without any limitations due to the use or after-effects of alcohol, illicit drugs, non-prescription drugs, or prescribed medications or any other substance.

1.6.3 SUPPORT

If we feel that an employee is not fit for duty or an employee express concern regarding restrictions for job-specific tasks/duties, discussions and arrangements will be made to find suitable alternative duties for the employee.

1.7 GENERAL SAFETY RULES

1. Report all injuries, illnesses, work refusals, unsafe acts, unsafe conditions, equipment damage and near miss incidents.

2. Perform all work using safe work practices and job procedures in accordance with your supervisor's direction.

3. Maintain good housekeeping

4. Do not engage in horseplay, fighting or practical jokes, which can become distractive or interfere with a safe working environment.

5. Any workplace violence or harassment will not be tolerated. This type of behaviour is prohibited and could lead to immediate dismissal.

6. Perform your work with your safety and the safety of others in mind.

7. No employee will perform any duty if they have not been adequately instructed and/or demonstrated that they can do so competently and safely.

8. Employees will wear personal protective equipment when required by regulations or job conditions.

9. Employees shall not engage in conduct, which might be hazardous to themselves or others.

10. Equipment will be used only for the purpose for which it was designed and will be maintained without modification.

11. Employees will not remove, impair, or render inoperative any safeguard.

2 Training

2.1 SAFETY TRAINING POLICY

The purpose of this policy is to ensure that all workers receive adequate safety training, orientation, new hire mentorship, and instruction, to perform their assigned tasks in a safe and efficient manner. All new employees, transferred employee, self-employed person, contracted employer and visitor will receive a safety Orientation. All identified parties will receive an orientation applicable to their position before any work tasks are completed.

Workers will participate in on-the-job training as it relates to their position under the direct supervision of a competent worker. As part of the job-specific training, a new worker or a newly re-assigned worker, will be made aware of specific hazards relating to their position and methods in place to control these hazards. This training will be recorded on the ***On-the-Job Training Record.*** An initial visual evaluation will be performed with the new worker to identify strengths and weaknesses, and where improvement can be made.

Scheduled health and safety meetings will be held, in which Goose Mechanical Inc. management and workers will attend. An agenda, minutes, and attendance of these meetings will be kept on file. These meetings will be recorded on the ***Safety Meeting Form.***

We will ensure that all levels of workers, self-employed persons, contracted companies and visitors participate in safety training, and records will be maintained. Training/communication may include, but not be limited to:

- Safety Orientations initially covering the following:
  - Worker rights – right to refuse, right to know, right to participate
  - Health and safety policies & procedures
  - Health and safety responsibilities
  - Task-specific hazards & controls
  - Hazard Reporting
  - Applicable regulatory requirements – OHS, Legislation & WCB
  - Discipline & enforcement policies and processes
  - Violence and harassment prevention plans
  - Emergency response procedures
  - Incident and near miss reporting
- Job-specific training as required with practical demonstration
- Certification and external training as required
- Scheduled health and safety meetings
- Refresher training periodically or as required

Senior Management **Date**

2.2 WORKER TRAINING AND COMPETENCY

Goose Mechanical Inc. is obligated by the Provincial *Occupational Health and Safety* to provide workers with the training necessary to safely and competently perform their assigned tasks.

Goose Mechanical Inc. is responsible for ensuring workers are competent to perform assigned tasks and to assess the competency of each worker. Particular attention must be given to the new worker or a newly re-assigned worker, who represents an unknown with respect to ability and who may take unnecessary risks.

Training must be:

- Relevant to the worker's job.
- Conducted by competent personnel
- Verified as effective through worker testing.
- Documented and maintained with worker records.

Goose Mechanical Inc. will ensure that job position qualifications for health and safety sensitive positions are in place. This will include the use of recruitment ads, job postings, and specific position qualifications.

2.2.1 COMPETENCY

After an orientation has been performed, and before the worker begins regular duties, a Goose Mechanical Inc. supervisor will perform a competency test on the new worker. This can be completed through a number of different processes including on-the-job-training, testing or worksite observation checklists.

2.2.2 RESPONSIBILITIES

Management will:

- Ensure workers are fulfilling their training responsibilities.
- Assess worker competence and assign individuals to tasks within their skill and qualification level.
- Ensure that all required training as per applicable federal, provincial, municipal acts, regulations, statutes, codes and standards are provided to workers who require such training for their related work activities.
- Ensure that inexperienced workers are continually supervised until they are deemed competent.

Workers will:

- Actively participate in sponsored training programs.
- Bring to management attention the fact that they are not trained if they are requested to perform a task for which they are not qualified.

2.2.3 REFRESHER TRAINING

Goose Mechanical Inc. will conduct refresher training periodically, at set intervals or as required for all related job tasks, company policies, procedures, responsibilities at a minimum. This training will be documented, and copies of certifications will be added to employee files.

2.3 ORIENTATION

The safety orientation helps new workers become familiar with Goose Mechanical Inc. Health and Safety Management Program. The orientation provides important information on hazards at the worksite and the safety precautions in place. At the end of the orientation, the worker will be more aware of their personal responsibilities with regard to their specific job. Goose Mechanical Inc. is able to gauge the worker's attitude to safety and identify any limitations that could affect the worker's ability to perform competently.

2.3.1 ORIENTATION PROCEDURE

It is mandatory for every new worker or transferred worker at Goose Mechanical Inc.'s to receive a safety orientation on their first day of work or within an appropriate time frame. An appropriate time frame means that certain orientation elements may be addressed over several days; however, critical elements must be addressed prior to starting work.

2.3.2 ORIENTATION TOPICS

- Worker rights – right to refuse, right to know, right to participate
- Health and safety policies & procedures
- Health and safety responsibilities
- Task-specific hazards & controls
- Hazard Reporting
- Applicable regulatory requirements – OHS, Legislation & WCB
- Discipline & enforcement policies and processes
- Violence and harassment prevention plans
- Emergency response procedures
- Incident and near miss reporting

2.3.3 HEALTH AND SAFETY QUALIFICATIONS

Goose Mechanical Inc. will confirm appropriate health and safety qualifications are met before employees can perform their jobs. Not all positions within the company will have qualification requirements, but the following should be considered:

- Drivers license requirements, specialized operator training, worksite related training and other company requirements

2.3.4 RECORD KEEPING

Records of all orientations will be kept as part of each worker's training record. Goose Mechanical Inc. will use these records to track an individual's progress in addition to their training.

2.3.5 ORIENTATION FORM

Safety Orientation Checklist

WORKER INFORMATION

Employee Name: _____ Position Hired for: _____

Date of Hire: _____ Date of Orientation: _____

Orientator: _____ Position of Orientator: _____

ORIENTATION TOPICS

WORKER RIGHTS

Workers have the right to:

☐ Know ☐ Participate ☐ Refuse

SAFETY POLICIES, PROCEDURES, & PRACTICES

☐ Review company's safety manual and where to find company safety policies, procedures & practices

☐ Review safety policies, procedures & practices that are applicable to position & job tasks

List Practices & Procedures Reviewed: _____

_____

_____

HEALTH & SAFETY RESPONSIBILITIES

☐ Review applicable safety responsibilities for position. Example - Worker, Supervisor & Management

☐ Follow safe work procedures, company safety rules, site specific rules, and legislative requirements

☐ Use protective clothing, devices, and equipment appropriately

WORKPLACE HAZARDS

☐ Review hazard assessment forms, and how to properly fill them out (i.e. how to identify hazards, risk rating, & controls)

☐ Review formal hazard assessments, job specific hazards, risk rating and controls for job tasks (i.e. Job Task Inventory, JSA's)

REPORTING UNSAFE CONDITIONS & CONCERNS

☐ Responsibility to report hazards, near misses, incidents & occupational illnesses

☐ Review how to report incidents

WORKPLACE VIOLENCE & HARASSMENT

☐ Review workplace violence prevention plan

☐ Review harassment violence prevention plan

EMERGENCY PROCEDURES

☐ Review ERP & applicable emergency procedures

☐ Review location of first aid kits, fire exits and fire extinguishers

☐ How to get first aid treatment

GENERAL RULES

☐ Review company's general rules and site specific rules

☐ Review company's enforcement policy and process

WHMIS

- ☐ Location of SDS information
- ☐ Review hazardous materials used in the workplace, how to handle, use, store and dispose of these products
- ☐ WHMIS Training

PERSONAL PROTECTIVE EQUIPMENT

- ☐ Review required PPE requirements; what to use, when to use it and where to find it (if supplied)
- ☐ Are trained in the care, use and maintenance of issued/required PPE
- ☐ Review specialty PPE requirements - including the use, care and maintenance

OTHER - If applicable

- ☐ Site Specific Orientation
- ☐ Take copies of required safety certification/tickets
- ☐ Review Drug & Alcohol Policy
- ☐ Modified Work/Return to Work Program
- ☐ Legislation - Occupational Health & Safety Legislated Requirements, and all other pertinent legislation
- ☐ Location of OH&S book and How to Access Electronically
- ☐ Safety Schedules (i.e. safety meetings, toolbox talks, inspections, etc.)

COMMENTS

I agree that I understand all the information reviewed in this orientation

Employee Signature: _____ Date _____

Supervisor Signature: _____ Date _____

Safety Orientation Questionnaire

Name of Employee _____ Date/Time _____

1. Hazard identification and control is important to maintain a safety working environment?

☐ Yes ☐ No

2. Working safely is a condition of employment?

☐ Yes ☐ No

3. All injuries, regardless of how minor, must be reported immediately to your supervisor?

☐ Yes ☐ No

4. It is important to maintain good housekeeping in your work area, equipment and vehicle?

☐ Yes ☐ No

5. You observe an unsafe condition on site, should you:

☐ Wait for the next safety meeting and report it.
☐ Report it immediately to your supervisor.
☐ Let someone else worry about it.

6. PPE should be worn whenever:

☐ Someone else is wearing it.
☐ Your supervisor advises you to wear it.
☐ You should wear it at all times on the job.

7. Tools and equipment whose guards are inoperative or missing are okay to use?

☐ Yes ☐ No

8. List a company rule:

_____

_____

9. If you are involved in a close call/near miss do you need to report it?

☐ Yes ☐ No

Employee Signature _____

2.3.6 ON THE JOB TRAINING FORM

On-the Job Training Form

Employee : _____ Position: _____

Task being performed: _____

Training provided: _____

_____

Date training provided: _____ Trainer: _____

Comments: _____

_____

_____

Task being performed: _____

Training provided: _____

_____

Date training provided: _____ Trainer: _____

Comments: _____

_____

_____

Task being performed: _____

Training provided: _____

_____

Date training provided: _____ Trainer: _____

Comments: _____

_____

_____

2.3.7 SAFETY COMPETENCY EVALUATION

Safety Competency Evaluation

Discussion Topic	Yes	No	Follow up action or comments	Date to complete
Safety policy: Is the worker aware of what the policy is about? Can the worker identify any accountability or responsibility of workers and supervisors?	☐	☐		
Rights: Does the worker know his worker rights? Refusal of unsafe work, right to participate, etc.	☐	☐		
Safety Responsibilities: Can the worker demonstrate how to navigate through the safety manual and locate the roles, responsibilities, procedures, etc.	☐	☐		
Hazard Identification and Reporting: Is the worker knowledgeable about how to identify a hazard, how to report it, and controls?	☐	☐		
PPE: Does the worker understand what PPE is required? Do they know how to properly use, maintain or the criteria for replacement and care?	☐	☐		
Safety Meetings: Can the worker explain the expectations for attendance, frequency and input?	☐	☐		
Training Requirements: Is the worker aware of required training? Have they received the appropriate external training for their job description? Has on-the-job training commenced?	☐	☐		
Site Visits: Has the worker been accompanied to the work site, and observed implementing the appropriate attitude and practices towards safety, while doing various general job functions?	☐	☐		
Incidents, Accidents and close calls: Does the worker understand how to identify the types of incidents and how to report? Does the worker understand the purpose of investigations & what their involvement might be?	☐	☐		

Discussion Topic	Yes	No	Follow up action or comments	Date to complete
Emergency Response: Does the workers know the Emergency Response Plan and the Evacuation Procedures? Are they familiar with how to use emergency equipment?				
Safe Work Procedures: Does the worker understand what procedures apply to them and can demonstrate an understanding?				
Inspections: Does the worker understand the varying types of inspections, the frequency to perform these inspections and responsibility if a deficiency is noted?				

Additional safety issues discussed

Supervisor/Evaluator Comments

Supervisor/Person Conducting Evaluation		
Name	Date	Signature

Worker Comments

Worker		
Name	Date	Signature

Management Review: _____

2.4 TWO-WAY COMMUNICATION OF HEALTH AND SAFETY ISSUES

2.4.1 GENERAL HEALTH AND SAFETY MEETINGS

General health and safety meetings are to be held that encourages two-way communication between all levels of employees. These meetings will include Goose Mechanical Inc. management and workers at all levels. The purpose of a general health and safety meeting is to communicate safety between management, and workers, including safety concerns, general safety topics, policy and procedure changes, and incident and near miss reports. These meetings also provide an opportunity to provide feedback on health and safety issues. All workers are encouraged to participate during these meetings and provide feedback. Minutes of meetings will be signed off by all those in attendance, a copy will be posted on the safety board, and originals will be retained for a minimum period of 3 years.

2.4.2 JOINT HEALTH & SAFETY COMMITTEE

When required by legislation, the Joint Health & Safety Committee members will also perform meetings.

2.4.3 OPEN DOOR POLICY

We pursue an open-door policy with respect to workers. All are encouraged to approach Goose Mechanical Inc. management with any safety concern issues.

2.4.4 HEALTH AND SAFETY ISSUES

- All health and safety items that are brought to the attention of a Goose Mechanical Inc. supervisor by workers will be recorded, and appropriate corrective actions are to be determined and tracked to completion.
- Goose Mechanical Inc. management will provide feedback on all issues brought forward by workers. This feedback may be provided individually or in meetings as appropriate to the situation.
- Corrective Actions and Action plans will be communicated to all workers.
- Near misses and incidents, along with results of any investigation, will be communicated to all workers and will be provided during Goose Mechanical Inc. Safety Meetings.

2.4.5 BULLETINS

Goose Mechanical Inc. will post any safety memos or safety-related bulletins for all workers to view.

2.4.6 RECORDS

Records relating to all aspects of the OH&S management program records shall be kept for a minimum of three years.

2.4.7 SAFETY TOURS

Management tours will be utilized to observe work practices and talk to workers about safety. This is an opportunity for positive reinforcement and behaviour-changing initiatives. The frequency of tours will vary according to our operations and the locations.

2.4.8 SAFETY MEETING FORM

Safety Meeting

Date: _____ Chairman: _____

Location: _____ Speakers: _____

ATTENDANCE			
NAME	SIGNATURE	NAME	SIGNATURE

LAST SAFETY MEETING REVIEW:

DISCUSSION TOPICS:

INCIDENT REVIEW:

RECOMMENDED ACTIONS	ACTION BY	TARGET DATE

2.5 ENFORCEMENT / DISCIPLINARY PROGRAM

2.5.1 PURPOSE & PROCESS

The safety information documented in this manual serves as a guideline to safe work practices. Infractions of applicable government rules or regulations or company policies, procedures, practices or rules will lead to disciplinary action against the employee who commits the infraction. This disciplinary process will also be utilized to address non-compliance of other workers (such as contracted employers or self-employed workers) under the direction of Goose Mechanical Inc.. Depending on the severity and/or frequency of an offence, disciplinary action will constitute one of the following actions:

2.5.2 VERBAL

A warning is administered verbally to the employee who has violated company policy and thereby jeopardized safety. A written record of the infraction and of the verbal warning issued will be kept in the employee's file.

2.5.3 DOCUMENTATION

A written warning will be given, documenting the violation and outlining the action to be taken if compliance is not adhered to. A copy of the written warning will be kept in the employee's file.

2.5.4 SUSPENSION

The employee may be suspended from his duties for a specific time frame. Documentation will accompany this action.

2.5.5 DISMISSAL/TERMINATION

The employee may be dismissed from all work with the company. This action will only be considered following severe breaches of company rules and/or regulations. (I.e., infractions of the substance abuse policy or conduct that endangers employees and/or equipment).

All disciplinary action will be at the discretion of management. Depending on the non-compliance issue of the employee, management may not be required to issue progressive discipline.

In all cases, management will work with all employees to gain commitment to injury prevention and reduction activities, and in doing so, gain compliance to safety rules and regulations. Managers will administer disciplinary action.

2.5.6 EMPLOYEE WARNING REPORT FORM

Employee Warning Report

Employee Name: _____ Date of Warning: _____

Warning Issued By: _____ Type of Violation: ☐ Safety ☐ Other

Reason for Warning: _____ Type of Warning: ☐ Verbal ☐ Written ☐ Suspension ☐ Dismissal

Company Statement (Supervisors Report):

_____

_____

_____

_____

_____

_____

Supervisor Signature: _____

Employee statement, check the appropriate:

☐ I agree with the company statement

☐ I disagree with the company statement for the following reasons (state below)

_____

_____

_____

_____

_____

_____

_____

Employee Signature: _____ Date: _____

3 Hazard Assessment

3.1 HAZARD ASSESSMENT POLICY

3.1.1 PURPOSE

There are many different forms of hazards that can exist in the workplace. The purpose of this policy is to:

- Identify hazards and assess the level of risk they impose.
- Eliminate or control the hazards.
- Implement then monitor the controls for effectiveness.

Hazard communication begins with the worker's orientation and continues through with task-specific and site-specific training done on a day-to-day basis. Workers must be informed of the hazards they face and the procedures needed to effectively mitigate or control those hazards. The most effective means to do this is through the hazard assessment process.

A formal hazard assessment or JSAs takes a close look at the overall operations of Goose Mechanical Inc. to identify hazards, measure risk (to help prioritize hazards) and develop, implement and monitor related controls. Worker job tasks or job activities are broken down into separate tasks. Formal hazard assessments are to be reviewed on an annual basis. Workers are encouraged to participate in the review process of formal hazard assessments as they relate to their work tasks. Any updates or changes recommended are to be directed to the attention of Goose Mechanical Inc..

Site-specific hazard assessment is conducted before work starts outside regularly controlled environments at a site and where conditions change or when non-routine work is added.

These hazard assessments check for the introduction of any unexpected hazards or hazards for which additional controls may be needed. Any hazards identified during a site specific hazard assessment must be addressed right away before work begins at the location.

A hazard assessment will involve all affected workers, be repeated at reasonably practicable intervals when a new process or operation is introduced or changed and prior to significant additions/alterations to a worksite. Contractor workers coming into Goose Mechanical Inc. worksite are to be made aware of existing hazards that may affect their work.

Goose Mechanical Inc. will establish clear lines and divisions of authority and will maintain the hazard reporting requirements, ensuring that adequate information is communicated in a timely and effective basis to everyone who needs it to do the work safely.

Goose Mechanical Inc. will also respect the worker's right to refuse any unsafe/dangerous work conditions and further facilitate an investigation.

Senior Management **Date**

3.2 HAZARD REPORTING

3.2.1 PURPOSE

Hazard reports are used to alert workers and management to any hazardous conditions or a deficiency of work procedures found by workers and others at the worksite. Hazard reports fill in the gaps between regular inspections, hazard analysis and enable Goose Mechanical Inc. to provide a continuously safe worksite. Hazard reporting will assist Goose Mechanical Inc. by identifying hazards prior to an incident or incident from occurring.

3.2.2 REPORTING HAZARDS

Everyone is to report to the appropriate supervisor of any hazard(s) they notice. All reported hazards should be immediately reported to and investigated. Goose Mechanical Inc. is responsible for ensuring that controls are implemented without delay to reduce the hazard and risk to workers.

- Employees shall not perform any work they feel is unsafe.
- Some sites will have a formal process for documenting reporting hazards.
- All workers have a responsibility for reporting hazardous conditions, practices, or acts that are encountered.
- Employees shall immediately report any non-work injuries or prescriptions that could affect their ability to perform their normal job safely.
- Suggestions or ideas received will be addressed in a timely manner.

Goose Mechanical Inc. will establish clear lines and divisions of authority and will maintain the hazard reporting requirements, ensuring that adequate information is communicated in a timely and effective basis to everyone who needs it to do the work safely. Re-occurring hazards will be reviewed at company safety meetings.

After receiving the information and controlling the hazard, the investigating supervisor and employee will complete a report and forward it to management for review.

3.2.3 TRAINING

Workers will be trained in the identification of hazards as part of their orientation process when they are first hired.

3.3 HAZARD ASSESSMENT

AB OHS CODE, PART 2, SECTION 7(4)

3.3.1 DEFINITIONS

A hazard is a situation, condition or thing that may be dangerous to the safety or health of workers. A hazard has the possibility to cause an injury, illness, or loss. *Potential* hazards are those that are foreseeable and reasonably likely to occur. The role of a hazard assessment is to identify hazards, and potential hazards, and to implement the appropriate controls, which will minimize the potential for incidents. The hazard assessment must not deal strictly with things that are wrong at the present time; this assessment must also deal with what could go wrong. When conducting a hazard assessment, it is important to ask the question, "what if?"

Risk is the chance of injury, damage, or loss and is usually expressed as a probability. For example, the risk of slipping on the icy walkway is high.

3.3.2 TYPES OF HAZARD ASSESSMENTS

There are many ways to do a hazard assessment. Two common types of hazard assessments are formal hazard assessments and field level (also known as site-specific) hazard assessments. Formal and site specific hazard assessments may work separately but are most effective when they are used together.

A formal hazard assessment takes a close look at the overall operations of Goose Mechanical Inc.'s to identify hazards, measure risk (to help prioritize hazards) and develop, implement and monitor related controls. Worker jobs tasks or job activities are broken down into separate tasks. Formal hazard assessments are detailed, can involve many people, and will require time to complete.

A site specific hazard assessment is performed before work starts at a worksite and at a site where conditions change or when non-routine work is added. This flags hazards identified at the location, or introduced by a change at the worksite. Any hazards identified are to be eliminated or controlled right away, before work begins or continues. More information on formal and site specific hazard assessments follows, with step-by-step guidelines on how to perform each type.

3.3.3 FORMAL HAZARD ASSESSMENTS

A formal hazard assessment (sometimes known as a JSA) is a basis for our Health & Safety Program. It outlines the hazards, measures risk (to help prioritize hazards), and points to the necessary control measures. Goose Mechanical Inc. utilizes these hazards, risks, and controls in various ways- including our worker training, safe work procedures and inspections process.

As Goose Mechanical Inc.'s operations expand or changes are made to the way work is performed (i.e., before new worksites are constructed and/or equipment, processes or tasks are introduced), additional hazard assessments are required and will be conducted.

To meet the Occupational Health and Safety legislated requirements, the date must be recorded on each hazard assessment. This provides a record of the last revision date and may help determine whether or not the document requires an update.

All tasks listed as medium and high in Goose Mechanical Inc.'s Job Task Inventory is required to have a corresponding Formal Hazard Assessment / JSA completed.

3.3.3.1 COMPLETING A FORMAL HAZARD ASSESSMENT

1. Figure out what people do. – Job Task Inventory
2. List all work tasks/activities.
3. Identify both Health and Safety Hazards of each task
4. Rank the hazards according to risk.
5. Prioritize
6. Find ways to eliminate or control the hazards.
7. Implement the selected controls.
8. Communicate the hazards and follow the controls.
9. Monitor the controls for effectiveness.
10. Review and revise the hazard assessment as needed.

3.3.3.2 CREATION, REVIEW & REVISION

It is important the formal hazard assessments be updated at defined intervals to ensure that all new processes, equipment and tasks are included. Goose Mechanical Inc. will create, review and revise formal hazard assessments at the following intervals:

- when new operations, work processes, equipment, materials or products are introduced
- when operations work-related processes or equipment are modified
- when site-specific hazard assessments, inspections, or investigations identify a previously unrecognized hazard
- as per a pre-determined frequency

The formal hazard assessment will be reviewed at a minimum of annually to ensure that all required information is covered. This review will include all levels of workers, including senior management/managers, supervisors and workers.

3.3.4 SITE-SPECIFIC HAZARD ASSESSMENTS

A site-specific hazard assessment is performed before work starts and where conditions change or when non-routine work is added. Site-Specific Hazard assessments are used to address hazards that show up because of changing circumstances at a worksite. They check for hazards before work starts at a site and at a site where conditions change or when non-routine work is added. Any hazards identified are to be eliminated or controlled right away, before work begins or continues.

These hazard assessments check for the introduction of any unexpected hazards or hazards for which additional controls may be needed. Any hazards identified must be addressed right away before work begins at the location. If a hazard assessment recognizes an ongoing hazard that was overlooked during the formal assessment process, the formal assessment should be updated to include it.

3.3.4.1 PARTICIPATION

Supervisors should lead the hazard assessment process and affected workers must be involved. Goose Mechanical Inc. will ensure that all affected workers are involved in the hazard assessment process and in the control or elimination of the hazards identified as required by provincial OHS.

Goose Mechanical Inc. will ensure that those leading the hazard assessment process are competent in the task. They will understand the goal of the assessment, the hazards introduced into the environment, and the experience/skill level of those who are working on site.

If hazards are identified, Goose Mechanical Inc. will ensure that workers receive immediate direction on how to proceed, eliminate the hazard, or implement controls before work begins or continues. An employer must ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and of the methods used to control or eliminate the hazards.

3.3.4.2 FREQUENCY

Whenever changes are introduced to a workplace (i.e., new tasks introduced or work conditions change), another hazard assessment must be completed. Changes at the worksite can signal the need for a new hazard assessment. Field level hazard assessment (also called site-specific hazard assessment) will be repeated at the following intervals when:

- when new operations, work processes, equipment, materials or products are introduced
- when operations work-related processes or equipment are modified
- when site-specific hazard assessments, inspections, or investigations identify a previously unrecognized hazard
- as per a pre-determined frequency
- when new operations, work processes, equipment, materials or products are introduced
- when operations work-related processes or equipment are modified
- when site-specific hazard assessments, inspections, or investigations identify a previously unrecognized hazard

Work being performed outside regular controlled environments must have a Site-Specific Hazard Assessment completed before work begins at a new work site or repeated if new hazards or changes have been introduced to a familiar work site including changing conditions such as weather or the arrival of new contractors that will impact the work site (with new equipment or processes.)

Repeating the hazard assessment and control process can prevent unsafe or unhealthy conditions from developing and will help determine if existing controls are actually working as intended.

3.3.4.3 COMPLETING A SITE SPECIFIC HAZARD ASSESSMENT

1. Take a look at the worksite and figure out what the tasks are for the day.
2. Identify any worksite hazards
3. Eliminate or control the hazards that have been identified
4. Communicate the hazards with all workers and follow the controls.
5. Repeat / reassess the hazards when there are changes to the worksite.

Any new or previously unidentified hazards noted in a hazard assessment might be considered for addition to

formal hazard assessment documentation.

3.3.4.4 REVIEW

Should conditions change during the course of the workday and new hazards are created, a new hazard assessment will be completed with all appropriate corrective actions documented.

Formal hazard assessments are also to be reviewed minimally on an annual basis. Workers are encouraged to participate in the review process of formal hazard assessments as they relate to their work tasks. Any updates or changes recommended are to be directed to the attention of Goose Mechanical Inc..

3.3.5 DANGEROUS WORK

Some hazards are significant enough to present a situation of imminent danger. The *Occupational Health & Safety Act* requires that workers stop performing work if they believe that there is a danger to their health and safety or that of any other worker or person exists. The imminent danger in relation to any occupation means a danger that is not normal for that occupation or a danger under which a person engaged in that occupation would not normally carry out the work.

3.3.6 TRAINING & COMMUNICATION

Hazard communication begins with the worker's orientation and continues through with task-specific and site-specific training done on a day-to-day basis. Workers must be informed of the hazards they face, and the procedures needed to mitigate or control those hazards effectively. The most effective means to do this is through involvement in the hazard assessment.

Key employees responsible for conducting and facilitating hazard assessments should receive training and how best to complete the process.

3.3.7 HAZARD ASSESSMENT FORM

Field Level Hazard Assessment

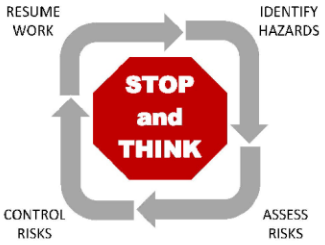
Task:	Date:	Worker:	Permit:
	Time:	Task Location:	Muster Point:

Reviewed / Updated

Time / Initial	Time / Initial	Time / Initial

Check off all hazards that apply to this job, then list identified hazards, prioritize and control plans (other side)

ENVIRONMENTAL HAZARDS		RIGGING & HOISTING HAZARDS		ACCESS/EGRESS HAZARDS	
1 Work area clean	☐	30 Lift sturdy required	☐	51 Aerial lift/Man basket (inspected & tagged)	☐
2 Material storage identified	☐	31 Proper tools used	☐	52 Scaffold (inspected & tagged)	☐
3 Dust/mist/fumes	☐	32 Tools inspected	☐	53 Ladders (tied off, 3 point contact)	☐
4 Harmful Gases	☐	33 Equipment inspected	☐	54 Slips/Trips	☐
5 Noise in area	☐	34 Slings inspected	☐	55 Hoisting (tools, equipment)	☐
6 Extreme temperatures	☐	35 Others working overhead/below	☐	56 Evacuation (alarms, routes, emergency #)	☐
7 Spill potential	☐	**36 LIFTING OVER LIVE PROCESS**	☐	**57 CONFINED SPACE PERMIT REQUIRED**	☐
8 Water containers needed	☐	**37 CRITICAL LIFT PERMIT REQUIRED**	☐	58 Barricades and signs in place	☐
9 Waste plan identified	☐	ENERGY HAZARDS		59 Hole coverings identified	☐
10 Waste properly disposed	☐	38 Working on/near energized equipment	☐	60 Harness/Lanyard inspected	☐
11 SDS reviewed	☐	39 Lock out reviewed	☐	61 100% tie-off with harness	☐
12 Other workers in area	☐	40 System isolated	☐	62 Tie-off points identified	☐
13 Weather conditions	☐	41 System depressurized	☐	63 Falling items	☐
14 GROUND DISTURBANCE PERM. REQ	☐	42 SABA/Safety in place	☐	64 Foreign bodies in eyes	☐
ERGONOMIC HAZARDS		**43 HOT WORK PERMIT REQUIRED**	☐	65 Hoisting or moving loads overhead	☐
15 Awkward body position	☐	PERSONAL LIMITATIONS/HAZARDS		66 Working above your head	☐
16 Over extension	☐	44 Procedure not available for task	☐	Notes	
17 Prolonged twisting and bending motion	☐	45 Confusing instructions	☐		
18 Working in tight area	☐	46 Inadequate training for task or tools	☐		
19 Manual lifting	☐	47 First time performing task	☐		
20 Parts of body in the line of fire	☐	48 Micro breaks (stretching/flexing)	☐		
21 Repetitive motion	☐	49 Reported all injuries to supervisor	☐		
22 Hands not in line of sight	☐	50 Appropriate PPE for task	☐		
23 Working above your head	☐	PERSONAL PROTECTIVE EQUIPMENT			
EQUIPMENT/TOOL HAZARDS		Must be inspected and documented prior to use			
24 Equipment/tools visually inspected	☐	Hard Hat ☐	Flame Resistantance ☐		
25 Red flag damaged	☐	Gloves ☐	Gas Monitor ☐		
26 Vehicle inspected	☐	Eye Protection ☐	Identify other PPE required:		
27 Driving hazards identified	☐	Foot Protection ☐			
28 Scaffold tagged	☐	Hearing Protection ☐			
29 Operator trained/licensed	☐	High Visibility ☐			



Quick Check	Yes	N/A
SDS available	☐	☐
Slips / Trips controlled	☐	☐
Pinch points controlled	☐	☐
Weather conditions considered	☐	☐
PPE requirements reviewed	☐	☐
PPE Inspected	☐	☐
Vehicle / equipment use	☐	☐
Tools/Equipment Inspected	☐	☐
Muster area known	☐	☐
Emergency exit plan	☐	☐
Eye wash station / Shower	☐	☐
First Aid Kit Stocked/Accessible	☐	☐
Fire Extinguisher inspected	☐	☐

It is important that all hazards are identified and controlled. Confirm that all permits are valid. Remember "Stop and Think" & "See it Again for the First Time"

Identify the tasks and Prioritize the hazards below as **HIGH, MEDIUM, or LOW**, then identify the plans to eliminate/control the hazards.

TASKS	HAZARDS	PRIORITY/ RISK	PLANS TO ELIMINATE/CONTROL RISK

JOB COMPLETION				
Are all Tasks completed?	Yes ☐	No ☐	If No, explain	
Are all Permit(s) closed out?	Yes ☐	No ☐	N/A ☐	If No, explain
Are there Hazards remaining:	Yes ☐	No ☐	N/A ☐	If Yes, explain
Was the area cleaned up at the end of the job/shift?	Yes ☐	No ☐	N/A ☐	If No, explain
Were there any incidents/injuries?	Yes ☐	No ☐	If Yes, explain	

Workers Name (Print)	Signature

Workers Name (Print)	Signature

Supervisor's Review: (Sign completed card upon review) _____

Client Representative: (if signature required) _____

3.3.8 JOB TASK INVENTORY

- A completed Job Task Inventory is located in the back section of this manual

Job Task List	Job Inventory					

3.3.9 FORMAL HAZARD ASSESSMENTS / JOB SAFETY ANALYSIS

Task:				**Date Developed:**	**Date Reviewed:**
Positions Included:				**Assessed by:**	
PPE/Equipment:					
Hazard of Task (State Safety or Health Hazard)	Risk Rating			**Hazard Controls**	
	Severity	Probability (Likelihood)	**Overall Risk Rating**		
Step 1:					
				Engineering	
				Administrative	
				PPE	
				Engineering	
				Administrative	
				PPE	
Step 2:					
				Engineering	
				Administrative	
				PPE	
				Engineering	
				Administrative	
				PPE	
Step 3:					
				Engineering	
				Administrative	
				PPE	
				Engineering	
				Administrative	
				PPE	
Step 4:					
				Engineering	
				Administrative	
				PPE	
				Engineering	
				Administrative	
				PPE	

4 Hazard Control

4.1 HAZARD ELIMINATION AND CONTROL

4.1.1 HAZARD CONTROLS

If an existing or potential hazard to workers is identified during a hazard assessment, Goose Mechanical Inc. will take measures to eliminate the hazard, or if elimination is not reasonably practicable, control the hazard.

A. If reasonably practicable, we will eliminate or control a hazard through the use of ***engineering controls.***

B. If a hazard cannot be eliminated or controlled by the above (A), we will use ***administrative controls*** that control the hazard to a level as low as reasonably achievable.

C. If the hazard cannot be eliminated or controlled by the above (A or B), we will ensure that the appropriate ***personal protective equipment*** is used by workers affected by the hazard.

Hazard controls must be identified and developed for the hazards identified within the formal hazard assessments and cover the following:

- in accordance with the hierarchy of controls,
- to meet legislative requirements,
- with high hazard items given priority,
- with the inclusion of workers affected by the hazards and proposed controls,
- including assignment of responsibilities for implementation, and
- with ongoing monitoring and evaluation of controls after implementation.

Combination of Control Methods

The control of some hazards requires the combined use of all control methods to reduce the hazard to the lowest level practicable or achievable. Goose Mechanical Inc. will use a combination of engineering controls, administrative controls, and personal protective equipment if there is a greater level of worker safety because a combination is used.

4.1.2 ENGINEERING CONTROLS

Engineering controls provide the highest degree of worker protection because they eliminate or control the hazard at its source. Engineering controls are the preferred method for eliminating or controlling hazards. Engineering controls include the following:

- **Elimination** – eliminating a hazard is the best method of control. Examples include:
    - Eliminating a manual handling task by using a mechanical lifting device.
    - Eliminating the need to elevate persons or objects above ground level.
    - Removing a fire hazard by using non-combustible materials instead of combustible.
    - Eliminating protruding objects.
    - Repairing a leak and eliminating toxic fumes.
    - Removing and disposing of defective ladders.

- **Substitution** – if elimination is not practical, substituting one chemical or piece of equipment for a less hazardous one or a particular work activity with a safer method is substitution control. Examples include:
    - Replacing the need for electrical cords running across walkways by installing more outlets.
    - Replacing ineffective PPE with more effective equipment.
    - Replacing a worker activity with a machine.

- Wet methods as opposed to dry sanding or sweeping.
- Engineering designs and control measures should be made at the conceptual stage of a project. Examples are:
- Installing security fences to control entry/exit.
- Installing additional lighting.
- Limiting worker's exposure to a hazard by using automated or mechanical devices.
- Designing process or procedural changes.
- Installing screens in welding areas to protect people from hazards associated with arc welding.
- Establishing lockout/tag-out procedures.
- Installing noise control barriers or suppressors.
- Ensuring vehicles are equipped with operational seatbelts.

4.1.3 ADMINISTRATIVE CONTROLS

Since engineering controls are not always practical, administrative controls are used. These controls are more desirable than PPE and should be one of the controls implemented. Administrative controls are less effective than engineering controls as they do not eliminate the hazards. Examples include:

- Developing safe work practices, job procedures, policies, rules.
- Establishing procedures for the ongoing maintenance of tools, equipment, vehicles, and facilities.
- Establishing good housekeeping practices.
- Monitoring all aspects of the health & safety program.
- Scheduling hazardous activities when there are only a few workers at the workplace.
- Rotating workers to reduce the exposure to a particular hazard.
- Training and educating workers, as well as scheduling refresher training.
- Establishing regular formal safety inspections and safety tours.

4.1.4 PERSONAL PROTECTIVE EQUIPMENT

When engineering or administrative controls fail to provide the required protection, personal protective equipment (PPE) should be considered the last defence line. PPE may be used as a supplement to these other controls but not as a substitute for them. In using PPE as a control method, the following must be considered:

- Determine where/when PPE is required.
- Determine which type of PPE is suitable.
- Ensure workers are trained in the proper care, maintenance and use of PPE.

When PPE is required, enforcing its use and enforcing the Goose Mechanical Inc. PPE Policy and practice is a necessary component. There are situations in which the use of PPE is vital to hazard control, for example:

- When carrying out normally hazardous operations such as welding, spraying, or working in confined spaces.
- Vehicle restraint devices, seat belts when operating a vehicle.
- In emergencies or when conducting activities, which have unknown hazard levels.

In addition, Goose Mechanical Inc. management must be familiar with the requirements for PPE.

4.1.5 COMMUNICATION

Hazard controls identified as part of the hazard assessment process will be communicated to all affected employees.

4.1.6 EMERGENCY RESPONSE

This reflects the practical reality that during an emergency response, it is impractical (and may be impossible) to prepare a written hazard assessment report. Emergency response waives any obligation to comply provincial OHS, during the period that emergency action is required.

4.2 VIOLENCE PREVENTION POLICY

AB OHS ACT SECTION 1, AB OHS CODE PART 27 SECTION 390

Goose Mechanical Inc. has a zero-tolerance policy towards violence in the workplace, and will adhere to the following:

- Commitment to eliminating or controlling the violence.
- Responsibility to investigate any incident of violence.
- Commitment to maintaining the confidentiality of personal information of those involved, where appropriate
- Every worker is entitled to a workplace free of violence.
- Make every effort to ensure that no worker is subjected to violence.
- Take corrective action respecting any person under Goose Mechanical Inc.'s direction who subjects any worker to harassment.

Violence, whether at a worksite or work-related, is the threatened, attempted or actual conduct of a person that causes or is likely to cause physical or psychological injury or harm and includes domestic or sexual violence. This policy is not intended to discourage a worker from exercising their rights.

4.2.1 COMPANY COMMITMENT

Goose Mechanical Inc. is committed to the prevention of workplace violence and is ultimately responsible for worker health and safety. We will take whatever steps are reasonable to protect our workers from the potential hazards associated with workplace violence. Violent behaviour or threat of violence in the workplace is unacceptable from anyone. Goose Mechanical Inc. has the following obligations:

- To dedicate sufficient attention, resources, and time to address and prevent factors that contribute to workplace violence including, bullying, teasing, abusive and other aggressive behaviours, and protect against it.
- To provide a safe, healthy and violence-free workplace.
- To communicate to its worker's information in its possession about factors contributing to workplace violence.
- To assist workers who have been exposed to workplace violence.

4.2.2 ASSESSING VIOLENCE

Goose Mechanical Inc. will assess the potential for workplace violence by taking into account, at a minimum, the following:

- The nature of the work activities.
- The working conditions.
- The design of the work activities and the surrounding environment.
- The frequency of situations that present a risk of workplace violence.
- The severity of the adverse consequences to the worker exposed to a risk of workplace violence.
- The observations and recommendations of the policy
- The measures that are already in place to prevent and protect against workplace violence.

4.2.3 VIOLENCE CONTROLS

Goose Mechanical Inc. will ensure that violence procedures include measures to eliminate or control the hazard of violence to any company workers. Examples of control measures that we will use include,

- posted signage
- restricted access to work areas

- security cameras
- alarms
- fencing
- proper lighting
- security procedures
- emergency response procedures
- working alone procedures

4.2.4 REPORTING AND INVESTIGATION PROCEDURE

- Workers are to report all violence-related incidents or hazards to Goose Mechanical Inc. management.
- The reporting worker may make the report confidentially, indicating the need for confidentiality
- The supervisor investigates it and ensures that measures are taken to safeguard workers and curtail the violence or harassment. No worker will be penalized, reprimanded or in any way criticized when acting in good faith while following this policy and the supporting procedures for addressing situations involving workplace violence.
- Goose Mechanical Inc. reports all injuries under the Occupational Health & Safety and WCB

4.2.5 RESPONSE PROCEDURES

- Using the incident investigation form, the supervisor documents all reports of workplace violence hazards and measures taken to address them.
- The supervisor reviews reports of workplace violence and ensures that actions are taken.
- The supervisor will warn all workers who might be affected by dangerous situations. They also tell the reporting worker about the outcome of the investigation to help minimize the chance of similar incidents.
- investigate the incident or injury, and report it to OH&S, local police and workers' compensation as required.

Goose Mechanical Inc. will respond promptly, assess the situation, and ensure that these interventions are followed:

- Facilitation of medical attention.
- Debriefing (by skilled professional).
- Referrals to community agencies, treating practitioner.
- Completion of incident reports, WCB reports, reports to OH&S (critical injury or fatality).
- Reporting to the police (as required) and team debriefing.

4.2.6 RISK ASSESSMENT

Goose Mechanical Inc. (with worker involvement), assesses workplace violence hazards in all jobs, and in the workplace as a whole. All workplace parties are accountable for complying with the policy, program, measures and procedures related to workplace violence.

4.2.7 PROGRAM EVALUATION & REVIEW

The effectiveness of the workplace violence prevention program is evaluated/reviewed when an incident occurs related to violence, at least every three years or when an incident occurs related to violence or when the HSC Committee or Representative recommend a review

4.2.8 TRAINING

Goose Mechanical Inc. will ensure that workers at all levels have training on the hazards of workplace violence, including how to recognize the signs of danger, what to do about it, and how to report it. This training will be covered as part of the orientation process.

Senior Management	Date

4.3 HARASSMENT PREVENTION POLICY

AB OHS ACT SECTION 1, AB OHS CODE PART 27 SECTION 390

Every worker is entitled to a workplace free of harassment. Goose Mechanical Inc. is committed to a harassment-free workplace where everyone is treated with dignity and respect. Harassment will not be tolerated from any person at or outside of the worksite including customers, clients, other employers, management & supervisors and members of the public. This policy covers the companies:

- Commitment to eliminate and/or control the harassment
- Responsibility to investigate any incidents of harassment and take corrective actions
- Commitment to maintaining the confidentiality of personal information of those involved where appropriate

4.3.1 DEFINITION OF HARASSMENT

Workplace harassment means any single incident or repeated incidents of objectionable or unwelcome conduct, comment, bullying or action by a person that the person knows or ought reasonably to know will or would cause offence or humiliation to a worker, or adversely affects the worker's health and safety, and includes conduct, comment, bullying or action because of race, religious beliefs, colour, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status, gender, gender identity, gender expression and sexual orientation, and a sexual solicitation or advance.

4.3.2 COMPANY COMMITMENT

We take all complaints of harassment very seriously. We are committed to implementing this policy and ensuring it is effective in preventing and stopping harassment, as well as creating a productive and respectful workplace. Everyone is obligated to uphold this policy and to work together to prevent workplace harassment.

4.3.3 WORKER'S DUTY

All workers shall refrain from causing or participating in the harassment of another worker and co-operate with any person investigating harassment complaints.

4.3.4 COMPLAINT PROCEDURE

A worker who believes that he or she has been subjected to harassment is encouraged to first clearly and firmly make known to the alleged harasser that the harassment is objectionable and must stop. Where this cannot be done or is unsuccessful, the worker should report the alleged harassment to Goose Mechanical Inc. management, or to one of the persons designated by Goose Mechanical Inc. to receive complaints of harassment. Once a person receives a complaint, that person shall immediately bring the complaint to the attention of a supervisor.

We will discuss options to resolve the complaint with the complainant. Where the conflict cannot be promptly resolved in a matter satisfactory to the complainant, we will notify the alleged harasser of the complaint, provide the alleged harasser with the information concerning the circumstances of the complaint and undertake a confidential investigation.

Following the conclusion of the investigation, we will inform the complainant and the alleged harasser of the results of the investigation. Where harassment has been substantiated, we will take appropriate corrective action to resolve the complaint.

4.3.5 CONFIDENTIALITY

Goose Mechanical Inc. will not disclose the identity of the complainant or alleged harasser or the circumstances of the complaint, except where disclosure is necessary for the purposes of investigating or taking disciplinary action in relation to the complaint, or where such disclosure is required by law.

4.3.6 OTHER OPTIONS FOR COMPLAINTS

Nothing in this policy prevents or discourages a worker from referring to a harassment complaint to Occupational Health and Safety or The Provincial Human Rights Commission. A worker also retains the right to exercise any other legal avenues available.

Workers have the right to healthy and safe work environments free from harassment. Goose Mechanical Inc. will make every reasonably practicable effort to ensure that no worker is subjected to harassment.

Goose Mechanical Inc. will implement this policy developed and post a copy of this policy in a conspicuous place that is readily available for reference by workers.

4.3.7 TRAINING

Goose Mechanical Inc. will ensure that workers at all levels have training on the hazards of workplace harassment, including how to recognize the signs of danger, what to do about it, and how to report it. This training will be covered as part of the orientation process.

4.3.8 PROGRAM EVALUATION & REVIEW

The effectiveness of the workplace harassment prevention program is evaluated/reviewed when an incident occurs related to harassment, at least every three years or when an incident occurs related to violence or when the HSC Committee or Representative recommend a review

Senior Management **Date**

4.4 PERSONAL PROTECTION EQUIPMENT (PPE)

The use of Personal Protective Equipment (PPE) forms the final line of defence between the worker and hazards and applies to all workers of Goose Mechanical Inc..

Where it is not reasonably practicable to protect the health and safety of workers by design of engineering or administrative controls, we will ensure that every worker uses suitable and adequate personal protective equipment.

All workers will receive training in the use, care, maintenance, limitations and storage of the PPE. This training will be completed as part of the new worker orientation, and for specialized PPE it will be completed through 3rd party or inhouse training. When specialized PPE is necessary, Goose Mechanical Inc. will make available any specialized PPE for its workers, and all workers will receive training in the use, care, maintenance, limitations and storage of the specialized PPE issued to them. Goose Mechanical Inc. will maintain all specialty PPE according to manufacturer instructions.

No piece of PPE will be modified or changed contrary to the manufacturer's instructions, specifications, or OH&S legislation.

4.4.1 DEFECTIVE EQUIPMENT

All PPE that is of questionable reliability, damaged or in need of service or repair, will be removed from service immediately. PPE that has been removed from services will be tagged "OUT OF SERVICE" and will not be returned until repaired and inspected by a qualified person.

The use of PPE must not itself endanger the worker. Goose Mechanical Inc. will ensure that wearing PPE does not endanger the worker and that the worker is properly using the PPE. *Examples* of such situations are:

- Safety toecaps in place of protective footwear- a worker wearing toecaps should not be required to do much walking around the worksite. The toecaps may create a tripping hazard.
- A poorly fitting suit worn to prevent exposure to chemicals may not seal well at the wrists and ankles.
- A face shield covered with dirt and debris may affect a worker's ability to see clearly.

4.4.2 RESPONSIBILITIES

The company will ensure that:

- Workers wear personal protective equipment that is correct for the hazard and protects workers.
- Workers properly use and wear personal protective equipment.
- The personal protective equipment is in good condition and is able to perform the function
- Workers are trained in the correct use, care, limitations and maintenance.
- That the use of personal protective equipment does not itself endanger the worker.

Workers will:

- Use and wear the appropriate personal protective equipment in accordance with the training.
- Inspect the personal protective equipment before using it.
- Not use personal protective equipment that is unable to perform the function for which it is designed.

4.4.3 LEGISLATION

All required PPE will meet provincial OHS requirements.

- AB OHS CODE PART 18, SEC 228, 229, 233, 234, 242, 243
-

4.4.4 SELECTION

Personal Protective Equipment (PPE) selection will be based on the following information:

- Hazard assessment.
- Safety Data Sheets.
- Occupational Health and Safety requirements.
- CSA standards.

4.4.5 TRAINING

Incorrect use of PPE can lead to incidents by actually impairing worker performance. Workers must ensure PPE fits and fits the specific job. Workers will be trained in the proper selection, inspection, maintenance, use and cleaning of Personal Protective Equipment.

This training of basic PPE will be conducted by a Goose Mechanical Inc. designate and will be documented for training on any specialized PPE. Refresher training in the use of specialized PPE must be given at frequent intervals, particularly when the piece of equipment is not in regular use. A record of all PPE training will be kept for each worker as it will be documented on the orientation form.

4.4.6 MAINTENANCE

Always inspect the PPE prior to use - it will not protect if it's damaged or broken. While working with PPE, take care of it and clean it after you are done. Then store PPE in a safe place where it will not get damaged - away from sunlight or contaminants. Maintenance records for specialized PPE will be kept by Goose Mechanical Inc..

4.4.7 CSA STANDARDS

Regulations often refer to Canadian Standards Association (CSA) or other equipment standards as a convenient way to identify equipment which meets requirements and is acceptable. The Canadian Standards Association develops standards to address needs, such as enhancing health and safety. CSA Group test and certify products to Canadian standards and issue the CSA Mark for qualified products. CSA certified equipment can be identified by the CSA logo.

For respiratory protection, National Institute for Occupational Safety and Health (NIOSH) standards and approvals are usually referenced throughout North America.

CAN / CSA	Stands for Canada and the Canadian Standards Association.
Z94	Lettering between CAN/CSA and the last two digits represent the internal CSA coding of the relevant standard.
92	The last two digits indicate the year issued, and there are revisions every 4 years.

Technological and research developments result in regular updates to standards. When the standard is updated, the end of the CSA reference number changes. The new standard becomes the standard that applies. Goose Mechanical Inc. will ensure to use the most up to date standard.

4.4.8 SAFETY FOOTWEAR

We will ensure that workers wear safety footwear that is appropriate to the hazards associated with the work being performed and that it is in a condition to perform the function for which it was designed. Goose Mechanical Inc. will ensure that:

- The safety footwear is approved to the most current CSA Standard Protective Footwear.
- Is appropriate to the work being done and the hazard involved.

Approved safety footwear will have the Canadian Standards Association (CSA) green triangle on the side or tongue of the boot or shoe. Workers should ensure:

- Safety footwear is inspected daily to ensure it continues to provide traction and protection.
- Safety footwear is laced and tied securely. Boots do not protect if they are a tripping hazard or fall off.

4.4.9 PROTECTIVE HEADGEAR

If there is a foreseeable danger of injury to a worker's head at a worksite, we will ensure that workers wear protective headgear that is appropriate to the hazards associated with the work being performed and that it is in a condition to perform the function for which it was designed. Where a significant risk of lateral impact has been identified, CSA approved lateral impact side helmets must be worn.

Goose Mechanical Inc. will ensure that the worker wears properly fitting head protection that:

- Meets the requirements of the most current CSA Standard Industrial Protective Headwear.
- Is appropriate to the work being done and the hazard involved.

To work properly, head protection must be fitted securely on the top of the head and bands adjusted to ensure the suspension system distributes the load evenly over the entire head. Best industry practice is to wear the hard hat with the brim facing forward.

Inspection & Maintenance

Hard hats must be inspected daily and must be replaced when the suspension system is worn, or the shell is punctured, split or cracked. Keep hard hat clean and free of solvents, adhesives, grease, and oil. Leaving a hard hat on a dashboard of a vehicle, where the heat from the sun may be intensified as it passes through the glass or on top of a heat register, could compromise the strength of the hard hat. CSA International advises against applying stickers on hard hats for three reasons:

- The adhesive on many stickers may react with plastic and degrade the strength of the shell.
- Metallic stickers may pose a special problem. They may conduct radiant heat from the sun creating a "hot spot," which would also weaken the plastic.
- Stickers themselves may hide damage (i.e., cracks) or weaknesses in the shell.

The usual maintenance for hard hats is simply washing with a mild detergent and rinsing thoroughly.

Here are some tips on the do's and don'ts of hard hats:

Do

- Replace a hard hat that is pitted, holed, cracked, or brittle.
- Replace a hard hat that has been subjected to a blow even though damage cannot be seen.
- Remove from service any hard hat if its serviceability is in doubt.
- Replace hard hat and components according to manufacturer's instructions.
- Consult regulations or your supplier for information on hard hats.

Do Not

- Drill, remove peaks or alter the shell or suspension in any way.
- Use solvents or paints on the shell (causes the shell to "break down").
- Put chinstraps over the brims of certain classes of hard hats.
- Carry anything in the hard hat while wearing the hard hat.

4.4.10 EYE PROTECTION

Where there is a risk of irritation or injury to the face or eyes of a worker from flying objects or particles, splashing liquids, molten metal, or ultraviolet-visible or infrared radiation, Goose Mechanical Inc. will ensure the worker uses industrial eye protection – safety glasses, or face protector and that it is in a condition to perform the function for which it was designed.

Goose Mechanical Inc. will ensure the worker to use properly fitting eye protection equipment that is:

- Approved to CSA Standard Z94.2-14
- Is appropriate to the work being done and the hazard involved.

When eye protection is required at a worksite, prescription eyewear may be worn if it complies with legislation and standards. Close-fitting splash-resistant goggles must be worn when handling chemicals, where required by Safety Data Sheets, signage, or where indicated by a hazard assessment. Workers should ensure:

- The eye protection fits properly (close to the face).
- Clean eye protection daily, more often if needed.
- Store eye protection in a safe, clean, dry place when not in use.
- Examine eye protection regularly and before the start of each workday to ensure it is clean and free from scratches that could hamper the view.

4.4.11 HAND PROTECTION

Where there is a risk of irritation or injury to the hands or arms of a worker, which includes, but is not limited to:

- Injury arising from contact with chemical or biological substances.
- Injury arising from exposure to work processes that result in extreme temperatures.
- Injury arising from prolonged exposure to water.
- Puncture abrasion or irritation of the skin.

Goose Mechanical Inc. will ensure a worker uses suitable and properly fitted hand or arm protection, and that it is in a condition to perform the function for which it was designed. Where a worker may contact an exposed energized high voltage electrical conductor, Goose Mechanical Inc. shall ensure the worker uses approved rubber-insulating gloves, mitts, and approved rubber-insulating sleeves.

Goose Mechanical Inc. will ensure that the worker wears properly fitting gloves that:

- Meets the requirements of CSA Standard (current version).
- Is appropriate to the work being done and the hazard involved.

There are many other types of gloves, with selection depending on the hazards involved. The right glove to fit the job is one that provides safety as well as performance.

Coated Gloves Chemical or liquid-proof gloves essentially are coated gloves. To be completely chemical or liquid-proof versus just chemical and liquid-resistant, the gloves must be fully coated.	**Cut-Resistant Gloves** Cut-resistant gloves are used when workers are at risk to be sliced or cut by equipment or the products they are handling.
Anti-Vibration Gloves Used for protection for highly specialized tasks such as operating chainsaws, grinders, nail guns, sanders and any machinery that produces a high level of vibrations. They provide extra padding to help prevent hand-arm vibration syndrome that often occurs from repeat exposure to vibration.	**Electrical Hazard Gloves** These gloves should be used at all times when working on general electric equipment. Electric hazard gloves are rated by section 70E of the NFPA and are classified based on the amount of voltage that a worker might be exposed to if shocked by an electrical current.
General Purpose Gloves These gloves are available in jersey, canvas or string knits, and placed in two basic classifications: drivers' gloves and leather palm gloves. Drivers' gloves (note: drivers is a generic term for this type of glove) are thin leather gloves for general-purpose use. They protect the entire hand from abrasion and punctures and are dependable for a wide variety of jobs. Leather palm gloves provide maximum protection against abrasive and puncture hazards.	**Heat-Resistant Gloves** There are heat-resistant gloves that are flame resistant, high heat resistant, convection heat resistant, or all three. **Welding Gloves** These gloves are made of leather with heat-resistant panels. There are MIG and TIG models, as well as thinner gloves for working with different types of welding or small piece welding. **High-Visibility Gloves** These gloves are available in safety orange or lime colours and come in day or nighttime versions.

4.4.12 HEARING PROTECTION

Under circumstances where workers are exposed to noise hazard levels, Goose Mechanical Inc. will ensure that workers wear hearing protection and that it is in a condition to perform the function for which it was designed.

Hearing protection with a noise reduction rating (NRR) of 25 or higher must be worn where noise levels exceed 85 dBA or identified by signage or other means on a worksite.

Goose Mechanical Inc. will ensure the worker uses properly fitting hearing protection that:

- Meets the noise reduction rating.
- Meets the most current CSA Standard
- Is appropriate to the work being done and the hazard involved.

Some supplemental Hearing Protection information:

Ear protection types

- **Ear Plugs.** These work by sealing the ear canal from the source of the noise. Improper insertion of an earplug will reduce comfort and effectiveness, and earplugs can make it difficult to hear other noises such as warning alarms or communications from co-workers. Foam type earplugs are designed to be worn only once and should be thrown away once they have been removed. Some earplugs are made of more sturdy plastic and are designed to be re-used. Reusable earplugs also come in styles that have a band or string that attaches the two plugs together and allows you to remove them and wear them around your neck when not in use.
- **Canal caps.** These are a variation of earplugs that are designed to fit over the ear canal, not inside it like an earplug. Some people prefer canal caps because they do not need to be inserted into the ear canal. Most canal caps have an attached string or band so that they can be hung around a worker's neck when not in use.
- **Earmuffs.** Earmuffs seal the entire ear with a cushioned cup that is much more comfortable. Earmuffs are good for intermittent use, but some people find them to be hot to wear for long periods. Earmuffs also come in styles that have built-in radio communication capacities.

4.4.13 HIGH-VISIBILITY CLOTHING

When workers are exposed to hazards such as moving roadway traffic or construction equipment Goose Mechanical Inc. will ensure the worker wears high-visibility clothing, and that it is in a condition to perform the function for which it was designed.

Goose Mechanical Inc. will ensure the worker wears properly fitting high-visibility clothing that:

- Meets the requirements of the most current CSA Standard
- Is appropriate to the work being done and the hazard involved.

Working near traffic and around construction exposes workers to considerable risk, and PPE such as high-visibility clothing minimizes exposure to these occupational hazards. High-visibility apparel makes workers stand out from their background, differentiates wearers, and provides greater visibility on the worksite.

Care and Maintenance:

- Keep your high-visibility apparel clean and well maintained. Contaminated or dirty retroreflective materials provide lower visibility.
- Replace garments that show signs of wear and tear, soiling, or contamination, as it will no longer be able to provide acceptable levels of visibility.
- Inspect high-visibility clothing daily to ensure it is clean, free of damage and able to protect as intended.

High-visibility Clothing General Information

Fluorescent material takes a portion of invisible ultraviolet light from sunlight, and through special pigments, sends it back to the viewer as more visible light. This material only functions where there is a source of natural sunlight. This property offers daytime visibility enhancement not present with other colours. These materials enhance daytime visibility, especially at dawn and dusk. Fluorescent colours provide the greatest contrast against most backgrounds.

Retroreflective material is created to return light in the direction of the light's source. This property will let a driver see the light reflected from the retroreflective material on a person's garment (as long as the person is standing in the light's beam). Retroreflective materials are most effective under low-light-level conditions. While retroreflective materials can still reflect in the daylight, there is little difference between the light reflected from the garment's material and the surrounding environment. This lack of contrast makes retroreflective materials ineffective for enhanced visibility during (sunny) daytime conditions.

High-Visibility Clothing Selection Criteria

The following information will be used for selection criteria:

1. Coverage
    - Large, bright garments are more visible than small ones. Coverage all around the body (360° full body coverage) provides better visibility in all viewing directions.
    - Stripes of colours that contrast (have a distinct colour difference) with the background material to provide good visibility. Stripes on the arms and legs can provide visual clues about the motion of the person wearing the garment.
    - When background material is bright-coloured or fluorescent material, it is intended to be highly visible but is not intended to provide retroreflective performance.
    - Other requirements such as flame resistance, thermal performance, water resistance, durability, comfort, tear-away features, material breathability and flexibility that are applicable to the job.
    - Select the colour and stripe combination that provides the preferred contrast and visual indication of movement.
2. Fit
    - For safety and best performance, garments should be fitted to the worker. Consider the bulk of clothing that might be worn underneath the garments, and how the garment should be worn (i.e., done up properly around the body with no loose or dangling components). The garments should sit correctly on your body and stay in place during your work.
    - The apparel should be comfortable to wear. The parts of the apparel that come into direct contact with the worker should not be rough, have sharp edges, or projections that could cause excessive irritation or injuries. The apparel should also be lightweight.
    - Select and wear garments so that no other clothing or equipment covers the high-visibility materials (e.g., glove gauntlets, equipment belts, and high-cut boots).
3. Brightness
    - Daylight: Bright colours are more visible than dull colours under daylight conditions (e.g. fluorescent materials are suitable for daylight).

- Low light conditions: Fluorescent colours are more effective than bright colours under low light (e.g. dawn and dusk). Under these conditions, reflective materials are also suggested.
- Dark conditions/worksites: Greater retro-reflectivity provides greater visibility under low light conditions. Retroreflective materials provide high-visibility conditions and are preferred over bright colours. Fluorescent materials are ineffective at night and less visible than white fabrics.

4. Colour

   The CSA High-Visibility Safety Apparel Standard specifies three colours for background materials and contrasting-colour stripes to provide options intended to create visibility against most work environments. The stripes should be either retroreflective or combined-performance.

   - Background material: should be fluorescent yellow-green, fluorescent orange-red or fluorescent red, or bright yellow-green, bright orange-red or bright red.
   - Combined-performance retroreflective material (i.e. the stripes): should be fluorescent yellow-green, fluorescent orange-red or fluorescent red and must be in contrast (have a distinct colour difference) to the background material.

5. Design

   - To comply with the CSA Standard, the high-visibility clothing should meet the following criteria:
     - Stripes/bands are to be in a distinctive, standardized pattern.
     - A symmetric "X" on the back extending from the shoulders to the waist.
     - Two vertical stripes on the front passing over the shoulders and down to the waist.
     - A waist-level horizontal stripe extending entirely around the back to the bottom of the vertical stripes on the front. This horizontal stripe may continue between the front vertical stripes (optional). For Class 3 apparel, stripes/bands encircling both arms and both legs are added.
   - The stripes/bands are to be displayed in a way to ensure that some part of them is visible from all angles around the body (i.e., 360° visibility).
   - Stripes/bands may be made up entirely of combined-performance or retroreflective material.

4.4.14 RESPIRATORY PROTECTION

When a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits, the atmosphere has or may have an oxygen concentration of less than 19.5 percent by volume, or is exposed to an airborne biohazardous material, respiratory protection is required. Goose Mechanical Inc. will provide, and ensure the worker use respiratory protection that it is in a condition to perform the function for which it was designed. Respiratory protection will:

- Meet the most current CSA Standard *Selection, Use and Care of Respirators*
- Be appropriate to the risk.

4.4.15

5 Codes of Practice

5.1 CONFINED SPACE

AB OHS CODE PART 5, SEC 46, 47, 48, 49, 52, 53 & 55, AB OHS CODE PART 10, SEC 162

5.1.1 INTRODUCTION

A confined space is an enclosed or partially enclosed space that is not designed or intended for continuous human occupancy with a restricted, limited, or impeded means of entry or exit because of its construction and may become hazardous to a worker entering it because of:

- An atmosphere that is or may be injurious by reason of oxygen deficiency or enrichment, flammability, explosivity, or toxicity.
- A condition or changing a set of circumstances within the space that presents a potential for injury or illness.
- The potential or inherent characteristics of an activity, which can produce adverse or harmful consequences within the space.

This Code of Practice has been developed to ensure all workers at any Goose Mechanical Inc. worksite where confined spaces may be present are fully knowledgeable of the health and safety hazards involved and the correct procedures to be followed to achieve full protection.

There have been many incidents, some fatal, involving confined spaces, and these have attracted considerable attention. These subject warrants careful consideration and procedures to proceed safely.

5.1.2 RESTRICTED SPACE

Restricted spaces have a limited means of entry and exit. Entry points may not be designed for an easy walk-in. Other limitations include access by ladders or by stairways that provide poor access because of the steep slope, narrow width, or extreme length. Physical obstructions such as bulkheads, collapsed material, or machinery may impede exit. Limited means of entry and exit can make escape or rescue difficult.

A "restricted space" is an enclosed or partially enclosed space, not intended for continuous human occupancy that has a restricted, limited, or impeded means of entry or exit because of its construction. It can be thought of as a work area in which the only hazard is the difficulty of getting into or out of the space. All other hazards are either non-existent or have been eliminated or controlled as per provincial OHS. Restricted spaces are therefore not subject to the permitting, atmosphere testing and tending worker requirements of a confined space. Employers and workers must be mindful that a restricted space can become a confined space if conditions or work practices change. Employers who voluntarily apply relevant sections of ANSI Z117.1-2003, Safety Requirements for Confined Spaces, might refer to restricted spaces as "non-permitted confined spaces." Examples of a restricted space include:

- an electrical or communication utility vault,
- a building crawl space,
- a trench with a temporary protective structure, and
- a deep excavation requiring a ladder or lift access.

Despite being classified as restricted space, the following requirements of continue to apply to workers entering a restricted space:

- a hazard assessment must be performed prior to entry
- workers assigned duties related to the entry must be trained to recognize hazards and how to perform their duties in a safe and healthy manner
- general safety requirements involving the use and availability of safety, personal protective, and emergency equipment, as well as a communication system
- prevention of unauthorized persons entering a restricted space
- protection of workers from hazards created by traffic in the area of the restricted space
- workers cannot enter or remain in a restricted space unless an effective rescue can be carried out
- a competent worker, designated by the employer, must be in communication with the worker(s) inside a restricted space
- a safe means of entry and exit must be available to all workers required to work in the restricted space

If a worker enters a confined or restricted space to work, Goose Mechanical Inc. must appoint a competent person to carry out the tasks listed in this section. The competent person must be knowledgeable about confined or restricted spaces and capable of carrying out each of the listed activities.

5.1.3 SCOPE

This code reflects the philosophy that all work must be done safely, and workers shall manage all activities associated with Confined Spaces in a manner consistent with this code and provincial regulations. In the interests of ensuring a safe, healthy, and productive environment at Goose Mechanical Inc., it is imperative that all workers, contract workers, comply with this Code when working in Confined Spaces.

Further development of specific Confined Space Hazard Assessment and Procedures are to be done in each departmental area for work that involves Confined Space Entry.

5.1.4 RESPONSIBILITIES

Managers

- Must be familiar with provincial regulations and guidelines regarding confined space entry.
- Will be responsible for maintaining and updating this Code of Practice as required.
- Conduct Hazard Assessments.
- Ensure safe work procedures are available when an entry is required.
- Ensure all required equipment is provided.
- Ensure all workers are qualified and adequately trained in Confined Space Entry Procedures.
- Ensure confined spaces are secured against entry or identified to prevent worker entry when an entry is not required.
- Ensure pre-entry testing and inspection are conducted based on the Hazard Assessment and written procedures.
- Ensure the precautions identified in the Hazard Assessment and written procedures are followed.
- Ensure no unqualified workers enter a confined space.
- Ensure effective communication through pre-job and safety meetings.

- Ensure that all PPE and emergency equipment required for use in a confined space is inspected by a competent person before workers enter the confined space to make sure it is in good working order.
- Ensure records are kept of training, rescue procedures, safety meetings, permits, hazard assessments, etc.

Workers

- Participate in the training provided.
- Be familiar with and co-operate with all requirements of the Confined Space Entry Program.
- Notify a manager of any reason the worker may not be able to enter a confined space, such as claustrophobia or inability to use a protective breathing apparatus.
- Notify your manager of any unsafe conditions that exist or develop.
- Refuse to perform work believed to be unsafe or that he is not qualified for.

5.1.5 TRAINING

All workers who work within confined or restricted spaces and all workers with related duties, e.g. rescue workers and tending workers or "safety watch" personnel, must receive training specific to confined or restricted spaces. Every worker who works in a confined or restricted space must be able to recognize the hazards of working in the space and safely perform assigned duties. The rescue portion of this training may be part of a company or operation-wide emergency preparedness and response plan.

Training on its own does not ensure that a worker is competent to perform work safely. In addition to training, a worker must be adequately qualified and experienced to work safely. In cases where a worker is new to the job and does not have sufficient experience, the worker must be teamed up with and work under the direct supervision of a competent worker.

Goose Mechanical Inc. will ensure that a worker assigned duties related to confined space or restricted space entry is trained by a competent person in:

- recognizing hazards associated with working in confined spaces or restricted spaces, and
- performing the worker's duties in a safe and healthy manner

5.1.6 HAZARDS/HEALTH EFFECTS

Potential hazards in confined spaces are numerous and varied. The most obvious and lethal in the oil and gas industry is the presence of H_2S or other toxic gas and the deficiency of oxygen. All known hazards which may be encountered during confined space entry must be identified by the Hazard Assessment and recorded on the Confined Space Entry Permit.

Examples include:

- Mechanical.
- Electrical.
- Gases, including H_2S.
- LEL.
- Dust.
- N.O.R.M.
- Fluids.

- Overhead hazards.
- Entrapment.
- Drowning.
- Falls.

A worker is considered to have entered the confined space when his breathing zone enters, even if his lower body remains outside. Isolation of the confined space must ensure that no form of energy can be released or product introduced while workers are required to be in it.

Consideration must be given to the work practices required and the effect they could potentially have on the atmosphere or conditions in the confined space. For example:

- Will residual fluids or sludge be disturbed and release entrapped gas / H_2S?
- Will welding or other hot work be necessary, and if so, will toxic vapour be released, or will visibility be hampered?
- Is there a potential for chemical interaction?
- Will dust be raised and visibility hampered, or workers require additional protection?

5.1.7 CONTROLS

Whenever possible, entry into confined spaces should be avoided. Alternative processes to accomplish the required tasks must be considered. If the entry must be performed, adequate controls must be in place to ensure the safety of workers:

5.1.8 CONFINED SPACE ENTRY PERMITS

A person must not enter a confined space at a work site without a valid entry permit. An entry permit system will include for a confined space:

- lists the name of each worker who enters the confined space and the reason for their entry,
- gives the location of the confined space,
- specifies the time during which an entry permit is valid,
- takes into account the work being done in the confined space, and
- takes into account the code of practice requirements for entering, being in, and leaving a confined space.

Before a worker enters a confined space, an entry permit must be properly completed, signed by a competent person and a copy kept readily available.

5.1.9 HAZARD ASSESSMENT

Restricted spaces have a limited means of entry and exit. Entry points may not be designed for an easy walk in. Other limitations include access by ladders or by stairways that provide poor access because of a steep slope, narrow width or extreme length. Physical obstructions such as bulkheads, collapsed material, or machinery may impede exit. Limited means of entry and exit can make escape or rescue difficult.

Entry Program

Before workers enter a confined space, the Goose Mechanical Inc. Confined Space Permit must be completed. The identification, evaluation, and control of confined space hazards are often quite complex. The confined space entry program must be prepared by a qualified person who is knowledgeable about the equipment, its contents, the work required and the rescue procedures. This is recorded on the ***Goose Mechanical Inc. Confined Space Entry Permit Form.***

A well-thought-out rescue plan, proper equipment, and training and practise sessions are essential to keeping workers safe if they must enter a confined space.

All workers must be aware of the need to identify confined spaces before entering them and to take the necessary precautions to protect themselves and their coworkers.

Confined spaces must be secured against entry, signed, or other effective means used to identify the space and warn workers of the hazards. Bolted, flange-type manways on vessels are considered to be secured against entry and don't require signs. The Confined Space Entry Procedure must include:

- An assignment of responsibilities.
- A list of each confined space or group of similar spaces, and a written hazard assessment of those spaces prepared by a qualified person.
- Written safe work procedures for entry into and work in each of the confined spaces. Each procedure must be written specifically for each of the hazards that exist in each space during each entry.
- Identification and entry permits.
- Lockout and isolation.
- Verification and testing.
- Cleaning, purging, venting, or inerting.
- Ventilation.
- Standby persons.
- Rescue.
- Lifelines, harnesses, and lifting equipment.
- Personal Protective Equipment and other precautions
- Coordination of activities
- Training of workers

A Confined Space Entry Permit system must:

- List the name of each worker who enters the confined space and the reason for their entry.
- Provide the location of the confined space.
- Specify the time period for which the entry permit is valid.
- Take into account the work being done in the confined space.
- Identify the safety precautions that must be taken.

PPE

The Hazard Assessment will identify the PPE required:

- SCBA or SABA must be used for confined space entry if:
    - There is a potential for H_2S or other hazardous substance concentrations exceeding the OEL.

    - There is an oxygen deficiency.
- Respiratory protective equipment shall meet the requirements of the Goose Mechanical Inc. Code of Practice for Respiratory Equipment.
- A body harness with a lifeline may be worn while in confined spaces if:
    - Respiratory equipment is worn.
    - Rescue may be difficult and/or require the standby person to enter a confined space.
- Workers entering may carry the following:
    - LEL detector.
    - O2 and CO detector.
    - H_2S detector.
    - Explosion-proof flashlight, lighting, and electrical equipment.
    - A breathing apparatus is required.
- All workers on a confined space entry site will wear fire retardant and nonstatic producing clothing (No nylon clothing).
- Should Naturally Occurring Radioactive Material (N.O.R.M.) be detected or identified within the confined space, N.O.R.M. procedures will be put in place and followed.

Isolation

Before confined space entry is approved, the confined space must be isolated in compliance with the Goose Mechanical Inc. lockout procedure.

- A record must be kept, which identifies the location of every isolation point for the confined space.
- The area must be secured and signed to prevent unauthorized entry to the work being performed (e.g., Rope, tape, barricades).
- All lines into the vessel must be blanked, blinded or double blocked and bled in accordance with provincial OHS regulation, as close to the vessel as possible.
- Any potential energy, including hydraulic, electrical, mechanical, pneumatic, chemical, thermal or other sources of potential harm to workers, must be effectively isolated, locked out, and tested to ensure it cannot be inadvertently started.

Testing

Before workers enter a confined space, or if workers have been out of a confined space for more than 20 minutes, pre-entry testing must be conducted by a qualified worker, using reliable, calibrated equipment, to verify that it is safe for a worker to enter. The test record must be posted at the confined space entry and must show:

- The date and time of the test.
- Levels found.
- The tester's initials.

If possible, continuous atmosphere testing should be used for the duration of any confined space entry. If continuous testing is not possible, manual testing must be done at a predetermined frequency with results recorded on Goose Mechanical Inc.'s Confined Space Entry permit and posted at the entry point.

The worker conducting the atmosphere sampling tests must be qualified and wear full respiratory protection when undertaking tests or use remote testing devices such as a drawtube/hose.

Ventilation

If possible, a confined space must be ventilated to purge the space and provide clean, respirable air for workers. If natural ventilation is insufficient, adequately sized mechanical ventilation may be used as per written procedures. It must:

- Maintain the flammable gas content below 10% LEL.
- Where respiratory protective equipment is not worn, maintain oxygen about 19.5% and below 23%.

A system must be in place to warn workers in the confined space of mechanical ventilation failure and initiate their evacuation.

Standby Person

The standby person will be responsible for the safety of the workers in the confined space. Duties include:

- Ensure no person will enter a confined space without a qualified stand-by person in place.
- Ensure samples are taken of the atmosphere within the confined space to determine levels of H_2S, O2, LEL and any other hazardous substance identified before any workers enter.
- Record worker's names on the confined space entry permit as they enter and exit the confined space, as well as all tools, materials, and equipment brought in to and out of the confined space.
- Maintain visual observation or some form of continual communication with occupants of the confined space. There will be a qualified standby person in the place at all times while workers are inside the confined space, and workers in the confined space will have a continuous means to summon the standby person.
- Have an effective means to summon additional assistance.
- Ensure life support equipment is maintained for confined space entry occupants by preventing the entanglement of lines or other equipment.
- Shall not perform any tasks which draw his/her attention away from the persons in the confined space, such as fetching tools, equipment, etc.
- Equipped and capable of immediately effecting rescue and shall wear breathing apparatus, except the facepiece, when work is performed under hazardous conditions. If the standby person could be exposed to a hazardous atmosphere, he/she will wear the facepiece as well. They may require a second standby.

Rescue Equipment and Procedures

Immediate rescue must be available when workers enter a confined space. Persons assigned to rescue duty must be properly equipped and trained to carry out those duties. Practice drills should be performed and records maintained.

- The rescue procedure for each confined space must include:
  - A rescue plan developed, reviewed and in place.
  - Identified alarm system/method.
  - Location of muster point.
  - Diagram of the inside of the confined space.
  - Equipment necessary to perform rescue for specific, confined space.
  - Procedures to initiate the rescue.
- Equipment required on-site will include, but not be limited to:
  - Alarm system.
  - Intrinsically safe communication devices (e.g., two-way radio).
  - Fire extinguisher available near the entrance.
  - SCBA to provide backup to the standby person when breathing apparatus is being used.

- First aid kit and burn kit.
- Body harness.
- Intrinsically safe flashlights lighting, electrical equipment.
- Extra rope – rescue approved.
- Ground fault interruption (GFI) on electrical cords and or temporary breakers.
- Stretcher.
- Additional rescue equipment, such as lifting equipment, as listed in site specific rescue procedure, to enable a rescue.

- The exit from the confined space should be staged properly to provide a quick means of escape or rescue (e.g., Scaffold, man-lift, ladder, or steps).
- Rescue equipment will be maintained in good condition, inspected before and after use.

Protection

- Hot work will require extra precautions to guard against the possible hazards of fire and explosion. LEL monitoring must be used.
- Typical garments, gloves and boots are recommended in the Safety Data Sheets.
- Rubber-soled boots or alternative footwear will be worn in vessels that have a coating that could be damaged.

5.1.10 ENTRY PROCEDURE

Before any entry into a Confined Space, all workers involved in the entry of the confined space must complete an Entry Permit and Hazard Assessment.

- guard the work area
- conduct an initial test with a gas monitor
- if the test indicates a non-harmful atmosphere:
  - remove any liquid that hinders working conditions or poses a hazard
  - remove any free-flowing solid which poses a hazard
  - prevent the entry of any liquid, free-flowing solid or hazardous substance into the confined space
  - the opening for entry into and exit from the confined space is sufficient to allow the safe passage of a person using protection equipment - position and set up the ventilator
  - continuously monitor the space

If any of these requirements cannot be met, entry into a confined space is NOT permitted. For every confined space entry, a competent worker must designate a tending worker, and this person must stay in communication with the worker in a confined space. The tending worker must keep track of the number of employees in the confined space, be in constant contact with the workers and have a suitable system for summoning assistance.

If a minor alarm occurs, the following procedure is to be executed:

- immediately exit the confined space
- retest the space
- check to ensure the ventilator working properly
- notify the supervisor

If a major alarm occurs, the following procedure is to be executed:

- immediately exit the confined space taking gas monitor out of confined space
- notify supervisor at once when an atmospheric alarm occurs

5.1.11 PROTECTION

When a worker is in a confined space, uncontrolled energy sources and hazardous substances must be prevented from creating a hazard to workers. Examples of appropriate controls include blanking or blinding, double blocking and bleeding, misaligning or removing sections of lines, pipes or ducts, controlling all sources of hazardous energy, de-energizing equipment and immobilizing or disconnecting all mechanical linkages (See Below). In certain cases, alternate means of isolation and safe work procedures, certified by a professional engineer, may be used to protect workers.

Goose Mechanical Inc. will ensure that workers within a confined space are protected against the release of hazardous substances or energy that could harm them. Goose Mechanical Inc. will ensure that a worker does not enter a confined space unless adequate precautions are in place to protect a worker from drowning, engulfment, or entrapment. Goose Mechanical Inc. will ensure that any hazardous energy in a restricted space is locked/ tagged out.

5.1.12 PRE-ENTRY ATMOSPHERIC TESTING AND CONTINUOUS MONITORING

If the risk assessment identifies a potential atmospheric hazard and the worker is required or authorized by an employer to enter a confined space, Goose Mechanical Inc. will ensure that a competent worker performs a pre-entry atmospheric test of the confined space to:

- verify that the oxygen content is between 19.5 percent and 23.0 percent by volume, and
- identify the amount of toxic, flammable, or explosive substance that may be present.

Goose Mechanical Inc. will ensure that as often as necessary after the first time a worker enters the confined space, a competent worker:

- performs atmospheric testing, and
- identifies and records any additional hazards.

Goose Mechanical Inc. will ensure that if there is a potential for the atmosphere to change unpredictably after a worker enters the confined space, the atmosphere is continuously monitored.

5.1.13 CONTROLS FOR RESPIRATORY HAZARDS

If atmospheric testing identifies that a hazardous atmosphere exists or is likely to exist in a confined space, Goose Mechanical Inc. will ensure that the confined space is ventilated, purged, or both before a worker enters the confined space. If ventilating or purging a confined space is impractical or ineffective in eliminating a hazardous atmosphere, Goose Mechanical Inc. will ensure that a worker who enters the confined space uses personal protective equipment appropriate for the conditions within the confined space.

5.1.14 CONTROLS FOR EXPLOSIVE ATMOSPHERES

Goose Mechanical Inc. will ensure that a confined space is inerted if it is not reasonably practicable to eliminate an explosive or flammable atmosphere within the confined space through another means. If a confined space is inerted, an employer must ensure that:

- every worker entering the confined space is equipped with supplied air respiratory protection equipment,

- all ignition sources are controlled, and
- the atmosphere within the confined space stays inerted while workers are inside.

5.1.15 RESCUE PLAN

Goose Mechanical Inc. will ensure that the emergency response plan includes the emergency procedures to be followed if there is an accident or other emergency, equipment and including procedures in place to evacuate the confined space or restricted space immediately:

- when an alarm is activated,
- if the concentration of oxygen inside the confined space drops below 19.5 percent by volume or exceeds 23.0 percent by volume, or
- if there is a significant change in the amount of hazardous substances inside the confined space.

5.1.16 VENTILATION

Ventilating means the use of mechanical ventilation to force fresh air into the confined space while workers are working. Purging means the introduction of substances such as an inert gas, steam or water into a confined space to displace or flush out contaminants prior to workers entering the space. If atmospheric testing identifies that a hazardous atmosphere is present or is likely to be present in a confined space, the space must be ventilated, purged or both before a worker enters the confined space. If ventilating or purging is impractical or does not eliminate the atmospheric hazards, workers are then required to wear appropriate personal protective equipment. Personal protective equipment is not an acceptable method of worker protection from flammable or explosive atmospheres. If mechanical ventilation is required to maintain a safe work atmosphere within a confined space, Goose Mechanical Inc. will ensure that the ventilation system incorporates a method of alerting workers if the system fails. Workers must be trained in the evacuation procedures to be used if the ventilation system fails.

5.1.17 LEL

Where a flammable or explosive substance is present in the atmosphere of a confined space at a level that is more than 20% of the lower explosive limit (LEL) of that substance, Goose Mechanical Inc. will not require or permit a worker to enter or work in the confined space.

5.1.18 CONFINED SPACE ATTENDANT

Goose Mechanical Inc. will ensure that a competent worker trained in confined space rescue is present outside a confined space, at or near the entrance, if:

- the oxygen content of the atmosphere inside the confined space is less than 19.5 percent by volume,
- the oxygen content of the atmosphere inside the confined space is greater than 23.0 percent by volume,
- the concentration of a substance listed in provincial OH&S inside the confined space is greater than 50 percent of its occupational exposure limit, or
- another hazard is identified by the hazard assessment, and the hazard cannot be eliminated or effectively controlled.

5.1.19 COMMON ATMOSPHERIC HAZARDS

COMMON ATMOSPHERIC HAZARDS		
Hazard	How it occurs	Why you should be concerned
Oxygen deficiency (less than 19.5 % oxygen)	Chemical or biological reactions consume oxygen.	Oxygen-deficient atmospheres affect heart rate, muscle coordination, and breathing. Eventually, they lead to death. Oxygen-enriched atmospheres increase the risk of fire or explosions.
Oxygen enrichment (greater than 23.0 percent)	Results from welding tasks and from the improper use of oxygen for breathing air.	
Flammable atmospheres	Fuel, oxygen, and a source of ignition cause fires and explosions.	Flammable gases such as acetylene, butane, propane, hydrogen, and methane are often common in confined spaces. Grain, nitrated fertilizers, and ground chemicals can produce combustible dust.
Toxic atmospheres	Accumulates through some manufacturing, biological, or chemical reactions. It can be released during work or tasks such as welding and cleaning.	Many manufacturing processes, stored materials, and work tasks produce toxic gases, vapours, or dust.
Corrosive atmospheres	Accumulates from some manufacturing processes, biological or chemical reactions.	Corrosive substances destroy living tissue. Some cause immediate damage to skin and eyes; some have no immediate effect but cause cancer with prolonged exposure.

5.1.19.1 CONFINED SPACE ENTRY PERMIT

Confined Space Entry Permit

Permit Number: _____ Description: _____

Date: _____ Location: _____

Company/Contractor Rep: _____

Time Permit Issued: _____ Time Permit Expires: _____ Time Permit Returned: _____

Space to be Entered: _____

Reason for Entry: _____

Associated Work: _____

Vehicle or Equipment: _____

Type Area					
Confined Space			Outside the Confined Space		
☐ Class 1	☐ Class 11	☐ Class 111	☐ Hazardous Area	☐ Restricted Area	☐ Unclassified Area
☐ Cold Work	☐ Hot Work		☐ Cold Work	☐ Hot Work	

General Checklist		
☐ Identify Potential Hazards	☐ Control Ignition Sources	☐ Designated Smoking Area
☐ Hold Pre-Job Meeting	☐ Isolate and Lockout Electrical Sources	☐ Communicate WHMIS/HAZCOM
☐ Keep Permit at Work site	☐ Isolate and Lockout Valves, Piping and Energy	☐ Provide Safety Standby
☐ Communicate Evacuation Procedures	☐ Safety Standby is First Aid & CPR Trained	Other:
☐ Provide Mechanical Ventilation	☐ Monitor Induced Sources	Other:

Safety Equipment			
☐ Gas Detector	☐ Fire Retardant Clothing	☐ Fall Protection	☐ Bonding/Grounding Equip.
☐ SCBA	☐ Chemical Resistant Clothing	☐ 20 lb. Fire Extinguisher	☐ Air Mover
☐ Air Purifying Respirator	☐ Chemical Googles	☐ Barricades	☐ Wind Sock
☐ Blasting Hood	☐ Face Shield	☐ 2-way radio	☐ Spark Arrestors
☐ Safety Glasses	☐ First Aid Kit	☐ Hearing Protection	☐ Explosion Proof Equipment

Other

Specific Instructions: _____

Atmospheric Testing

☐ Testing Frequency ☐ Continuous Intermittent Test Frequency (hrs.) _____

Permissible Exposure Limits	Time	Time	Time	Time	Time	Time
Flammables (Hot Work 0% LEL)						
Flammables (Cold Work 0-3% LEL)						
H2S (0-10 ppm)						
Other:						
Other:						

Entrants		
Print Names of Entrants Covered by this Permit and Check Names if Authorized as a Safety Watch		
Name	Name	Name

Rescue Details	
Print Name(s) of Designated Safety Standby(s)	
Print Names of Designated Rescue Members (2 Minimum)	
Inventory of Rescue Equipment Required	

Emergency Contacts					
Name	Phone #	Location	Name	Phone #	Location

Final Entry Check					
	Yes	No		Yes	No
Rescue Plan Reviewed	☐	☐	Safe Lighting Available	☐	☐
Rescue Equipment on Site	☐	☐	Other (Ropes, Barricades)	☐	☐
Protective Equipment on Site	☐	☐	Pre-Job Safety Meeting Held	☐	☐
Additional Atmospheric Testing Required	☐	☐	WHMIS Info Reviewed	☐	☐

Specify How Often is Additional Atmospheric Testing Required: _____

Additional Comments: _____

Signatures

Permit Issuer: _____ _____ _____

Permit Receiver: _____ _____ _____
(Print Name) (Signature) (Means of Communication)

Sign Off:

Issuer: _____ _____

Work Completed: ☐ Yes ☐ No

Time Signed Off (24 Hr Clock): _____

Receiver: _____ _____

NOTE: Permit valid only for 12 hour period
(Print Name) (Signature)

5.2 HEARING PROTECTION

AB OHS CODE PART 18 & OHS EXPLANATION GUIDE PART 18, SEC 228; 229; 233; 234; 242; 243

Noise is one of the most common workplace hazards. All workers shall wear appropriate PPE that minimizes the risk to all workers exposed.

Goose Mechanical Inc. will ensure that all reasonably practicable means are used to reduce noise levels in all areas where workers may be required or permitted to work. The means to reduce noise levels may include any of the following:

- Eliminating or modifying the noise source.
- Substituting quieter equipment or processes.
- Enclosing the noise source.
- Installing acoustical barriers or sound-absorbing materials.

We will ensure that:

- All new worksites are designed and constructed so as to achieve the lowest reasonably practicable noise level.
- Any alteration, renovation or repair to an existing worksite is made so as to achieve the lowest reasonably practicable noise level.
- All new equipment to be used at a worksite is designed and constructed so as to achieve the lowest reasonably practicable noise level.

5.2.1 EXPOSURE LIMITS

Goose Mechanical Inc. will ensure that a worker's exposure to noise does not exceed:

- 85 dBA Lex

5.2.2 MEASUREMENT OF NOISE LEVELS

In every area where workers are required or permitted to work, and the noise level may frequently exceed 80 dBA, Goose Mechanical Inc. will ensure that:

- The noise level is measured in accordance with an approved method.
- A competent person evaluates the sources of the noise and recommends corrective action.
- The measurements, evaluation, and recommendations are documented.

Goose Mechanical Inc. will re-measure the noise level when altering, renovating, or repairing the worksite, introducing new equipment, or modifying any process which may result in a significant change in noise levels or occupational noise exposure.

5.2.3 CONSERVATION PROGRAM

If a noise exposure assessment confirms that workers are exposed to noise in excess of the occupational exposure limits, a noise management program will be implemented. The program will include the following seven components:

(1) Worker education.
(2) Measuring or monitoring worker exposure to noise.
(3) Posting warning signs in any work area where the noise level exceeds 80 dBA.
(4) Use of noise control methods.

(5) Selection, use and maintenance of hearing protection devices.
(6) Audiometric testing and annual review, and
(7) Annual program review.

5.2.4 WORKER EDUCATION

The success of a noise management program largely depends on effective worker education. We will ensure worker education will include the following elements:

- Regulatory requirements and responsibilities.
- Occupational exposure limits — what they are and why they are needed.
- The effects of noise on hearing.
- Goose Mechanical Inc. policy on eliminating noise as a hazard, including the noise, controls already in place or planned for the future.
- Identification of hazardous noise sources at the workplace.
- Training in the use of protective equipment, i.e., the purpose of hearing protectors, types of protectors available, advantages and disadvantages of the various types of hearing protectors available, selection, fitting, use and care, troubleshooting. This training should include supervised, hands-on practice in the proper fitting of hearing protectors.
- Audiometric testing, i.e., its role in preventing hearing loss, a description of the test procedure, interpretation and implications of test results.
- Individual responsibilities for preventing hearing loss, i.e., compliance with the program, noise exposure and hearing loss in non-occupational settings.

5.2.5 POSTING WARNING SIGNS

Warning signs will be posted at the periphery of any work area where the noise level exceeds 85 dBA. The signs will include a statement that hearing protectors must be worn while in the area. The supply of several types of hearing protectors will be readily accessible to those entering the area. Signs will present their warning graphically and in words. The words will be written in English, and if workers are unable to read English, the words should appear in the predominant language of the workplace.

5.2.6 AUDIOMETRIC TESTING

Workers exposed to noise levels that are continuously exceeding the provincial occupational exposure limits or OH&S will undergo audiometric testing. The purpose of testing is to establish a baseline measurement of the workers' hearing and to then monitor the worker's hearing at regular intervals to detect changes in hearing ability.

5.2.7 USE OF NOISE CONTROL METHODS

Engineering controls will be used to minimize or eliminate exposure by altering or removing the source, and then administrative controls try to control exposure by modifying the circumstances of the worker's exposure. Personal hearing protection will be used to reduce exposure when the other approaches have not reduced the hazard to an acceptable level.

5.2.8 SELECTION, USE AND MAINTENANCE OF HEARING PROTECTORS

Hearing protectors can fail to provide adequate protection in many situations due to discomfort, incorrect use with other safety equipment, dislodgment, deterioration, and abuse. However, hearing protectors can protect against noise-induced hearing loss if their use is carefully planned, evaluated, and supervised. We will ensure that hearing protection equipment provided to workers exposed to excess noise meets the most current CSA Standard for *Hearing Protection Devices — Performance, Selection, Care, and Use.*

Goose Mechanical Inc. will provide workers with training in the selection, use and maintenance of hearing protection equipment required and will ensure that affected workers wear the required hearing protection equipment.

Workers will be provided with a choice of two or three types of protectors from the class of hearing protection considered to be most appropriate for each worker's work area noise level and hearing deficit (if any). These choices will have to conform to the most current CSA Standard. The type of protection most appropriate for a particular worker depends on the other equipment that must be worn (such as safety headwear, protective eyewear, respirator, etc.), the shape and size of the worker's head and ear canals, and relative comfort. Defective and poorly fitting protectors need to be identified and repaired, replaced, or refitted. Workers who are provided with hearing protection equipment must wear and use the equipment in accordance with the training provided by Goose Mechanical Inc..

5.2.9 ANNUAL PROGRAM REVIEW

The noise management program will be reviewed on a regular basis by Goose Mechanical Inc. management to make sure it is effective. The extent of the review will be based on the complexity of the program but will include a review of the training program, an assessment of the need for further noise measurement and the adequacy of control measures.

The key measure of a program's success is whether it prevents work-related noise-induced hearing loss. We will consider information from the physician or audiologist when evaluating the effectiveness of the education and training programs related to noise and the effectiveness of noise control measures. Overall results can be compared from year to year to identify trends among individuals, within occupations, for various processes, between different departments, or between different worksites. It is easier to identify specific problems when results are grouped in this way.

5.3 RESPIRATORY PROTECTION

AB OHS CODE PART 18, SEC 244 (1) (3) (A) (4),SEC 244 (2), SEC 248 (1), SEC 250 (1)

5.3.1 INTRODUCTION

Some of the work activities at Goose Mechanical Inc. worksites involve working with or in proximity to hazardous substances such as dust, vapour, and gas. At times, respiratory protection is mandatory.

The purpose of this Code of Practice is to ensure that all Goose Mechanical Inc. employees and contractors engaged in any work operation where respirators may be needed are fully knowledgeable of the health hazards involved and the correct procedures to be followed to achieve full protection.

5.3.2 SCOPE

This code reflects the philosophy that all work must be done safely, and workers shall manage all activities associated with respiratory protection in a manner consistent with this code and government legislation.

In the interests of ensuring a safe, healthy, and productive environment, it is imperative that all employees of Goose Mechanical Inc. understand and comply with this code.

5.3.3 RESPONSIBILITIES

Managers and Supervisors are responsible to:

- Ensure respiratory equipment is selected, provided, and maintained appropriately.
- Ensure workers required to wear respiratory equipment are adequately trained in the inspection, use, and care of the equipment.
- Ensure fit tests are conducted and appropriate equipment is available to workers.
- Keep records of training, fit testing, inspection, maintenance, hydro testing, and air quality.
- Ensure workers are physically fit and able to wear the respiratory equipment. Considerations should include:
    - claustrophobia,
    - asthma,
    - epilepsy,
    - anxiety, or
    - any conditions which could hamper the worker's ability to use the equipment.
- Carry out periodic evaluations to ensure compliance with applicable codes and regulations.

Workers are responsible to:

- Use the appropriate equipment when required.
- Let their supervisor know if anything may hamper their ability to use respiratory protective equipment. Considerations should include claustrophobia, asthma, epilepsy, anxiety, etc.
- Ensure the respiratory equipment is in good working order before using it.
- Report any defect or malfunction before the equipment is returned to service.
- Ensure that the mask or respirator is the size and type that was used in the fittest.
- Ensure the equipment is cleaned and ready for its next use before storing it in the appropriate location.

- Participate in the training provided.
- Maintain certification if required (e.g., H_2S Alive).
- Refuse work if they believe it is unsafe due to either a lack of training or conditions.

5.3.4 TRAINING

Each worker required to wear respiratory protection equipment must be trained in the inspection, use, cleaning, and sanitizing procedures of the equipment by a competent worker. Each worker required to wear respiratory equipment must understand and perform a negative pressure fit check whenever the equipment is donned.

5.3.5 HAZARD ASSESSMENT

A hazard assessment of the work area shall be conducted by a competent person to determine the respiratory hazards present and to assist in the selection of appropriate respirators where required. Updated assessments shall be completed when the nature of the hazard as determined in previous hazard assessment changes. The degree of danger to a worker at a worksite needs to be assessed and whether the worker needs to wear respiratory protective equipment if:

- a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits,
- the atmosphere has or may have an oxygen concentration of less than 19.5 percent by volume, or
- a worker is or may be exposed to an airborne bio-hazardous material.

Goose Mechanical Inc. will consider:

- nature and exposure circumstances of any contaminants or biohazardous material,
- the concentration or likely concentration of any airborne contaminants,
- the duration or likely duration of the worker's exposure,
- the toxicity of the contaminants,
- the concentration of oxygen,
- the warning properties of the contaminants, and
- the need for emergency escape.

5.3.6 RESPIRATORY HAZARDS

Hazard assessments will indicate when respiratory protection is required. Respiratory protective equipment protects the wearer from the adverse health effects associated with the inhalation of:

- Hazardous dust.
- Harmful vapours.
- Toxic gases.
- Oxygen deficient atmospheres.
- Any combination of these.

The following are some common or typical inhalation concerns. For more comprehensive information, please consult the applicable provincial OHS regulation.

5.3.7 DETERMINING THE NEED FOR RESPIRATORY EQUIPMENT

Respiratory hazards are those conditions that require special precautions and personal protective equipment to avoid inhalation of hazardous materials and to allow the safe execution of the work at hand. It is the responsibility of the management and workers to identify then ensure that respiratory equipment is worn when airborne contaminants exceed occupational exposure and allow the work to proceed safely.

5.3.8 SELECTING RESPIRATORY EQUIPMENT

Appropriate breathing equipment must be selected for the intended use according to the most current CSA Standard for Selection, Use and Care of Respirators. When selecting the appropriate RPE, Goose Mechanical Inc. will consider the following factors:

- nature of the contaminant
- concentration or likely concentration of airborne contaminants or biohazardous materials
- duration or likely duration of worker exposure
- toxicity of the contaminants
- concentration of oxygen in the work area
- warning property of the contaminants
- need for emergency escape

The Respiratory Protective Equipment COP Plan form will be used to identify the type of airborne hazard generated by each workplace operation (i.e., dust, mist, fume, vapour, gas, oxygen deficiency, or a combination). The specific chemical name of the contaminant(s) or type(s) of bio-hazardous materials should be identified along with the conditions, such as oxygen deficiency, that have initiated respirator use at the worksite.

The COP Plan will state the type of respirator that is to be worn for each operation or task requiring one. If an air purifying respirator is used, the respirator and cartridges' make and model number must also be stated.
The selection of RPE will be based on the potential exposure of the worker and the protection factor assigned to the respirator.

5.3.9 AIR PURIFYING RESPIRATORS (APR'S)

Air-purifying respirators can remove contaminants in the air that you breathe by filtering out particulates (e.g., dust, metal fumes, mists, etc.). Other APRs purify the air by absorbing gases or vapours on a sorbent (absorbing material) in a cartridge or canister. They are tight-fitting and are available in two main types:

- half-face mask (covering the face from the nose to below the chin), or
- full facepiece (covering the face from above the eyes to below the chin). Respirators with a full-facepiece also protect the eyes from exposure to irritating chemicals.

Air-purifying respirators (APRs) styles include:

- particulate respirators (previously called dust, fume, and mist respirators or masks),
- chemical cartridge respirators that can have a combination of chemical cartridges, along with a dust 'prefilter', this combination provides protection against different kinds of contaminants in the air
- gas masks (contain more adsorbent than cartridge-type respirators and can provide a higher level of protection than chemical cartridge respirators)
- powered air-purifying respirators (PAPRs)

Approved APR's

Included with the respirator or on the filter, cartridge, or package is information that states:

- Type of substance(s) the filter or cartridge protects against
- Limitations of the respirator and of cartridges or filters
- Proper cleaning and maintenance procedures - Parts (filters, cartridges, airlines, and so on) that make up the complete NIOSH-approved assembly
- The label "NIOSH" on the parts
- Approval number (always starting with the letters TC)

Make sure your respirator has all its proper parts. Since each manufacturer uses a different design, parts are not interchangeable between brands. Make sure you use the correct snap-on or screw-in filter or cartridge for your brand of respirator. Never use cartridges interchangeably. They will not fit correctly and will allow contaminants to leak into the facepiece. Making alterations and modifications, interchanging parts, or using parts not approved by NIOSH for specific respirator voids the NIOSH approval.

Filters and Cartridges

Filters are made of fibrous material that traps particles as you breathe in. Respirators that use filters provide protection against particulate contaminants. Cartridges provide protection against some gases and vapours. Some cartridges contain a sorbent material such as activated charcoal that removes contaminants from inhaled air. Other cartridges contain a substance that causes a chemical reaction with the contaminant, changing it into a harmless gas.

Some chemical cartridge respirators can also be fitted with filters to provide protection against particulates as well as gases and vapours. Combination gas/vapour and particulate cartridges are also available. The following table is based on the NIOSH description of particulate filter classes for non-powered air-purifying respirators.

Type of Contaminant	N Class (Not resistant to oil)	R Class (Resistant to Oil)	P Class (Oil Proof)
Solid and water-based particulates, but NOT oil-based	N95, N99, N100	R95, R99, R100	P95, P99, P100
Any particulates (oil or non-oil)		R95, R99, R100 (use for up to one shift in the presence of oil particulates)	P95, P99, P100 (use for more than one shift in the presence of oil particulates)
Non-oil particulates for which a "100" (HEPA) filter is required (i.e., asbestos, lead, hantavirus, cadmium)	N100	R100	P100
Any particulates (oil and/or non-oil) for which a "100" (HEPA) filter is required (i.e., asbestos, lead, hantavirus, cadmium		R100 (use for up to one shift in the presence of oil particulates)	P100 (use for more than one shift in the presence of oil particulates)

* oil is defined as a high boiling liquid hydrocarbon that will accumulate on a respirator's particulate filter with minimal evaporation. Examples include lubricants, cutting fluids and glycerin.

Warning Properties & Threshold Exposure Limits

For respirators fitted with gas and vapour cartridges to be used safely, the contaminant must have warning properties that will let you know if 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.

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 respirators. When comparing odour threshold to the exposure limit, always use the 8-hour time-weighted average (TWA) limit, where there is one, even if the substance has a short-term exposure limit or a ceiling limit listed as well. If a substance has only a ceiling limit, then use the ceiling limit. Odour thresholds are often given as a range because people differ in their ability to detect an odour. It is important to look at the upper end of the range in order to protect all workers.

Special cartridges with an end-of-service-life indicator (i.e., a mercury vapour cartridge) have been designed for a few contaminants that have poor warning properties. An end-of-service-life indicator is a device that changes colour to indicate when the cartridge is used up and needs to be replaced.

- The air-purifying respirators include all those that help purify the air the wearer breathes. Many use mechanical filtering devices: others use the filter cartridges to filter out contaminating particles before they can get into the lungs.
- Air-purifying respirators will not protect against gases or vapours and they will not supply oxygen where there is a deficiency.

5.3.10 USE, CARE & MAINTENANCE OF APR'S

Many air-purifying respirators are designed as single-use units, in which they are to be discarded after each individual use. Goose Mechanical Inc. will refer to the manufacturer guidelines for each brand/type of APR that may be utilized at the worksite, and the specific instructions for the use, care, storage, and maintenance of any reusable pieces, including the maximum number of donning's. As a general guideline, Goose Mechanical Inc. will hang a used respirator in a clean, breathable container between uses, and should any components of the respirator be washable, they will be washed in mild detergent and allowed to air dry.

RPE must be clean and must function effectively. A cleaning and maintenance program will be established to help ensure this happens and will be listed on the Respiratory Protective Equipment Plan.

The COP plan will include cartridge and/or filter change out schedules usually found in the manufacturer's specifications. When RPE uses compressed breathing air, the employer must ensure that the quality of the breathing air complies with Table 1 of Canadian Standards Association (CSA) Standard Z180.1-00, Compressed Breathing Air and systems and does not contain concentrations of substances that exceed 10 per cent of the applicable Occupational Exposure Limits for your applicable province.

5.3.11 SELF-CONTAINED OR SUPPLIED-AIR BREATHING APPARATUS

In oxygen-deficient atmospheres (under 19.5% oxygen), or in atmospheres with toxic contaminants that exceed the allowable exposure limits, self-contained (SCBA) or supplied air (SABA) must be used. The equipment must:

- Maintain a positive pressure within the facepiece at all times when the apparatus is being worn.
- Provide full-face protection.
- Have nose cups for all facepieces to reduce the possibility of fogging of the mask.

SCBA must:

- Provide air capacity of 30 minutes.
- Have a warning alarm for a low supply of air.

SABA must:

- Be fitted with an egress bottle to be used for emergency egress only.
- Only have hoses, fittings, and regulators of an approved type. All air hoses connecting the apparatus to the main air supply must be a minimum of 6 mm (1/4 inch) ID and a maximum of 90 metres in length.

Cartridge respirators shall not be used as protection against H2S, SO2 or methanol fumes, but may be used for benzene concentrations up to 10 ppm.

5.3.12 PRE-USE AND MONTHLY INSPECTIONS

Workers shall inspect their breathing apparatus before, and after each use. Facepieces and respirators shall be cleaned and sanitized after use to ensure they are ready for use at any time.

In addition to the pre-use check, breathing apparatus requires a thorough inspection at least once every month. This inspection must include:

- The tightness of connections.
- Conditions of component parts – e.g., facepiece, harness, hoses, valves, gauges, O-rings, tanks, etc.
- End of service life indicator.
- Shelf-life dates.
- Proper functioning of regulators, alarms, or other warning systems.
- Cylinders filled to specified working pressure.
- Pliability and deterioration of rubber or other elastomeric parts.
- After each use, and before refilling, the exterior of cylinders shall be inspected for obvious signs of damage.

If an inspection reveals any defects in the equipment, it must be immediately removed from service, tagged, and sent in to be repaired by a qualified technician.

5.3.13 HYDRO TESTS

The breathing air (cascade system, air cart, egress bottle, SCBA and resuscitator) cylinders should be rotated so that each cylinder receives a thorough external inspection and air change at least once a year. Inspection will include the hydro test date. If a hydro test is required, the cylinder will be sent to a qualified service provider.

- Composite bottles are hydro tested once every three years
- Steel bottles are hydro tested once every five years

Note: CGA C-6.2 – 1982 Regulation 9.1.3 indicates a maximum life for composite cylinders of 15 years. Any composite cylinders older than 15 years will be removed from service.

5.3.14 BREATHING AIR QUALITY

Compressed breathing air supplied for SCBA or SABA must be analyzed to ensure that the air being supplied meets the requirements of the current CSA Standards. The test must be conducted at intervals no longer than one year, and certification records must be available and should be kept with the equipment.

Oxygen	Between 19.5% and 22.5%
Maximum allowable limits for other components are:	
Carbon Monoxide	5 mL/m^3
Carbon Dioxide	500 mL/m^3
Methane	25 mL/m^3
Nitrogen Dioxide	0.3 mL/m^3
Nitrogen Oxide	2.5 mL/m^3
Halogenated Hydrocarbons	5 mL/m^3
Oil, Particulate Matter, Condensates	1 mL/m^3
Water	dew point at least 5^{o}C below the minimum temperature the system will be exposed to
Odour	Free of any detectable odour

5.3.15 FIT TESTS

Any worker who may be required to wear a breathing apparatus must be clean-shaven to ensure a positive seal of the equipment to his face. Beards, goatees (below the jawbone), or excessive facial hair are prohibited on worksites where hydrocarbons are present or could be released.

Employees, who may be required to wear a breathing apparatus, including a cartridge respirator, must be fit tested for the equipment they will be using. Fit tests are not required for disposable one use dust masks.

Fit tests must be carried out:

- By a qualified person.
- Before initial use of a respirator.
- At intervals required by provincial OHS Regulations
- Whenever there is a change in respirator facepiece, including the brand, model, and size.
- Whenever changes to the user's physical condition could affect the respirator fit.
- While the worker is wearing any other protective equipment, he may be required to use.
- Records must be kept on file and indicate the fit test results and worker instruction.

5.3.16 FIT CHECKS

Before each use, employees must do a visual inspection of their breathing apparatus and a negative pressure fit check to ensure a seal is obtained.

This fit check includes:

- Blocking off the air inlet.

- Inhaling to draw a vacuum on the facepiece. It should adhere to the face for a minimum of 5 sec. and not allow air to leak in.

5.3.17 USE OF RESPIRATORY EQUIPMENT

- Any corrective eyewear must not interfere with the face to respirator seal.
- Consideration must be given to other PPE the worker may be required to wear to ensure it will not compromise the face to respirator seal at any time.
- Consider the effects of high or low temperatures and precautions necessary.
- When a worker is required to use an SCBA or SABA to enter an IDLH atmosphere, another worker must stand by to monitor the worker and be equipped to affect a rescue if necessary.
- Other hazards must be considered, including a Lower Explosive Limit (LEL). No worker may enter an area if the atmosphere exceeds 20% LEL except in an emergency such as:
    - Controlling a release or
    - Rescuing another worker and
    - Then only if procedures will adequately protect worker safety.

5.3.18 CONDITIONS FOR USE OF RESPIRATORY PROTECTIVE EQUIPMENT

Goose Mechanical Inc. will ensure that only workers who are free from any physiological or psychological conditions that would prevent them from being able to wear a respirator are permitted to wear a respirator.

The first step is the completion of a health surveillance questionnaire. Privacy of worker's health information will be protected and must be considered. If workers indicate that they have a health condition on the questionnaire, they should be assessed by a health care professional.

The COP Plan will indicate that health surveillance must be conducted prior to a worker wearing a respirator. The COP Plan will indicate that where the effectiveness of the respiratory protective equipment depends on the facial seal, Goose Mechanical Inc. will ensure that the worker has been properly fit-tested and, when manufacturer specifications require, is clean shaven where the respirator seals against the skin.

Goose Mechanical Inc. will ensure that workers affected by the COP have been trained in it before work begins. The COP plan will be readily available at the worksite and should be posted in a location where workers may refer to it.

5.3.19 REFERENCES

- Safety Data Sheets (SDS) specify the type of protective equipment to be used for each different chemical.
- CAPP Respiratory Guidelines http://www.capp.ca/default.asp?V_DOC_ID=763&PubID=24904
- CSA Standard for Selection Use and Care of Respirators.
- CSA Standard for Compressed Breathing Air

5.3.19.1 RESPIRATORY PROTECTIVE COP PLAN

ALL WORKERS AFFECTED MUST BE TRAINED IN THE RPE CODE OF PRACTICE

Person Responsible for Selecting and Providing Respiratory Protective Equipment:

Name:

Telephone:

Position:

CONDITIONS FOR USE

1. **Health Surveillance**: Workers must be medically fit to wear a respirator
2. **Fit Testing**: RPE that depends on an effective seal for its safe use must be properly fit tested by a competent (trained) person every two years or when a worker's physical condition changes.
3. **NIOSH Approval**: RPE will be NOISH approved (N95, N99, N100).
4. **Clean-Shaven**: Workers must be clean shaven where the respirator contacts the face

TASK	AIRBORNE HAZARD	TYPE OF RESPIRATOR	RESPIRATOR MAKE/MODEL	TYPE OF CARTRIDGE	CARTRIDGE MAKE/MODEL	RPE USE MANDATORY?

MAINTENANCE/CLEANING/STORAGE OF RESPIRATORY PROTECTIVE EQUIPMENT

Maintenance: Cartridges/filters must be replaced as per the manufacturer's instructions- use respirators before the 'use by' date specified on the packaging.

Cleaning: RPE should be cleaned after each use with a damp wipe. Replace the respirator if it expires; becomes damaged, soiled, or contaminated.

Storage: Store away from contaminated areas when not in use in a dry, cool, and dark location.

5.4 SILICA

AB OHS CODE PART 4, SEC 16 (1) (2), SEC 21 (2) , SEC 29 (4) (A), SEC 40

5.4.1 WHAT IS SILICA

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

Some common materials that contain silica include rock, sand, topsoil and fill, concrete, cement, mortar, masonry, brick, tile, granite, sandstone, slate, asphalt (containing rock and stone) and fibrous- cement board containing silica.

5.4.2 HOW CAN WORKERS BE EXPOSED TO SILICA

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

- Abrasive blasting (e.g., of concrete structures)
- Jack hammering, chipping, or drilling rock or concrete
- Cutting brick or tiles
- Sawing or grinding concrete
- Road construction
- Loading, hauling, and dumping gravel
- Demolition of structures containing concrete
- Sweeping concrete dust

Workers performing these activities, or working in the vicinity of such activities, can inadvertently be exposed to harmful levels of airborne silica if not properly protected. Studies show that when common construction work tasks involving the sanding, drilling, chipping, grinding, cutting, sawing, sweeping, and blasting of concrete or concrete products are conducted without the use of proper dust controls, workers are exposed to airborne silica concentrations at levels far above allowable regulatory "occupational exposure limits" (OEL's).

5.4.3 HEALTH HAZARDS

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

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

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

Initially, workers with silicosis may have no symptoms; however, as the disease progresses, a worker may experience shortness of breath, severe cough, and weakness. These symptoms can worsen over time and lead to death.
Exposure to silica has also been linked to other diseases, including bronchitis, tuberculosis, and lung cancer. Crystalline silica dust (e.g., quartz dust) is also a carcinogen.

5.4.4 HAZARD IDENTIFICATION

The majority of work typically performed by workers does not involve or create airborne silica dust, so consequently, the risk presented is infrequent. Typically, the only portion of work that will create silica dust is drilling into concrete slabs, walls, or footings for the installation of anchors to hold electrical / instrumentation systems or components in place.

This Exposure Control Plan specifically targets "silica dust exposure" as a hazard that may be periodically encountered in completing such work and the control measures to be applied to minimize this potential hazard.

Other task-specific hazards are identified, noted, and suitable control measures defined to mitigate such risks through the mandatory use of standard hazard management processes (i.e., FLHA's & JSA's) that are in use throughout operations.

5.4.5 RESPONSIBILITIES

Due to the health risk posed by airborne silica dust, it is essential that personnel involved in any task that could potentially result in them being exposed to this hazard are aware of their responsibilities under HSE Program:

As an employer, Goose Mechanical Inc. will provide a job-specific plan for any task where warranted, outlining the identified hazards and the work methods/practices to be followed. Considerations shall include:

- Availability and delivery of all required tools/equipment/scope & nature of work to be done / control methods to be applied / level of respiratory protection required and coordination plans with others affected by the work.
- Ensure that the materials (e.g., tools, equipment, PPE) and other resources (i.e., training materials, company documentation) required to fully implement and maintain a plan that is readily available as required.
- Conduct a periodic review of the effectiveness of any plan to ensure defined control measures are being used and are effective.
- Ensure that supervisors and workers are educated and trained to an acceptable level of competency for the work to be undertaken.
- Maintain records of training, fit-test results, crew talks, and inspections (equipment, PPE, work methods/practices).
- Coordinate the work with the management and other employers on-site to ensure a safe work environment is maintained at all times.

Supervisors are responsible for:

- Assisting management in the development and finalizing of this plan given his or her familiarity with the scope of work to be done.
- Overseeing the development of an appropriate and complete job plan (JSA) to be applied.
- Reviewing all required/related documentation with involved workers, ensuring their understanding of the requirements, procedures, and expectations to be followed in order to complete this work safely.

- Ensuring that involved workers are educated and trained to an acceptable level of competency for the work to be undertaken.
- Providing ongoing support to involved workers through the duration of the task to ensure defined
- PPE identified precautions, and job-specific control measures are being used and are effective.
- Directing and overseeing the work in a manner that ensures the risk to workers is minimized and adequately controlled.
- Communicating with management and other sub-contractors to ensure a safe work environment is maintained at all times.
- Investigate any task related incidents, issues or near misses as they may occur as per HSE practices.

Involved Workers are responsible to:

- Know the hazards of silica dust exposure.
- Know, understand, and comply with the established work procedures and job-related requirements as directed by a supervisor and relevant task-specific documentation to ensure safe completion of this task.
- Use the assigned protective equipment in an effective and safe manner at all times while in the confined space performing such work.
- Promptly report any exposure incidents, unsafe conditions or acts to a supervisor without delay.

5.4.6 EDUCATION & TRAINING

Before starting any work where silica dust is a significant hazard, involved individuals must be familiar with and understand the scope of work being done as well as the parameters/contents outlined in the "task-specific" documents before participating in that task.

These documents shall include:

- The "task-specific" hazard assessment (FLHA & / or JSA) created for that job.
- Rescue Plan for that job (if warranted).
- Relevant permit (i.e., Confined Space Entry Permit, Client permit, etc.) as relevant.
- Any additional documents that are relevant to that job at hand.

An SDS sheet for concrete must be readily available on-site and also reviewed with involved workers during the job planning stages of such work. Reference to the applicable Provincial OH&S Codes / Regulations is also suggested as may be warranted.

5.4.7 CONTROL MEASURES

Goose Mechanical Inc. has a duty to protect workers from silica dust exposure on sites. It is the company's intent on keeping such exposure to workers to as low as reasonably possible and below allowable Occupational Exposure Limits under Provincial OH&S Regulations.

We commit to being diligent in efforts to select the most effective control technologies and practices available and to ensure that identified and appropriate control measures are implemented and followed on sites as warranted dependent on the extent of the hazard.

Possible control measures may include:

PPE	Goggles	To prevent silica dust exposure to a person's eyes, which can cause irritation. Must be worn by workers when drilling or cleaning up.
PPE	Hearing Protection (earplugs)	For protection for noise & prevent dust in ears.
PPE	Eyewash station	For use in event of contamination to worker's eyes. Must be readily available for use if/as needed.
PPE	Half mask respirator with P100 cartridges	To prevent worker inhalation of airborne silica dust particles.
Ventilation	Air Mover(s)	For use in a confined space entry situation to provide fresh, breathable air & move contaminated air out of immediate work atmosphere. Must be operating at all times while workers are inside a confined space.
Equipment	HEPA vacuum	To remove/contain silica/concrete dust created through a work process (i.e., drilling into concrete). Hose nozzle to be kept as close as safely possible to work zone for the best collection of dust. Sweeping of concrete dust, especially in a confined space, is not recommended.
Proper Hygiene	Water/hand cleaner	To allow involved workers an opportunity for proper cleanup for scheduled breaks and at the completion of the task. Involved workers must fully wash hands before handling or consuming food items.
Proper Hygiene	-----	Contaminated disposable coveralls to be removed/discarded before entering the lunch trailer for breaks.

5.4.8 WORKER EXPOSURE

The potential for worker exposure to silica should be identified during the hazard assessment. Goose Mechanical Inc. will ensure that a worker's exposure to silica is kept as low as reasonably achievable. Employees will not be exposed to airborne concentrations of silica in excess of 0.025 mg/cubic meter over an 8-hour time period. Atmospheric testing results should be assessed before a worker is exposed.

5.4.9 REVIEW

Prior to the start of work where silica dust is a significant hazard, the supervisor must review the plan with all workers involved with the particular task.

All involved crew members must sign off on the document indicating they understand and acknowledge the risks and hazards associated with this work and the identified control measures / safe work practices to be implemented for the safe completion of this task.

5.4.10 INJURY TREATMENT AND INCIDENT REPORTING

For any individual having difficulty breathing during or after being involved with a task where silica dust was a factor, it is recommended that he or she be taken to the local hospital for assessment and possible treatment.

If a worker suffers silica dust/concrete dust in his or her eyes, the use of the readily available eyewash and / or water on site (use copious amounts) shall be used to flush the eyes out as soon as possible. The casualty shall be taken to the local hospital for medical follow up as a precaution.

In keeping with HSE Policies, any injury, incident, near miss or damage situation that occurs is to be reported promptly to the supervisor for investigation and follow up, as necessary. The respective client representative shall be notified without delay and appropriate incident reports generated as required.

5.4.11 WORKER CONTAMINATION

Goose Mechanical Inc. will:

- provide workers in a restricted area with protective clothing that protects other clothing worn by the worker from silica contamination,
- ensure that workers' street clothing is not contaminated by silica, and
- ensure that a worker does not leave a restricted area until the worker has been decontaminated.

5.4.12 HEALTH ASSESSMENTS FOR EXPOSED WORKERS

A health assessment must comply with the requirements outlined in provincial OHS. The person with custody of the health assessment record must ensure that no person, other than the worker or health professional who conducts the health assessment, has access to the exposed worker's health assessment unless:

- the record is in a form that does not identify the worker or
- the worker gives written permission for access by another person.

Goose Mechanical Inc. will ensure that a worker undergoes a health assessment:

- not more than 30 calendar days after the worker becomes an exposed worker and
- every two years after the first health assessment. Exposed workers may refuse to undergo part or all of a health assessment by giving the employer a written statement refusing it.

Goose Mechanical Inc. will pay the cost of the health assessment. If it is reasonably practicable, a health assessment is performed during normal work hours.

5.4.12.1 SITE SPECIFIC SILICA EXPOSURE CONTROL PLAN

Site-Specific Silica Exposure Control Plan

Work Location: _____ Date: _____

Work Description: _____

_____

_____

Primary Silica Control Options (Check those options used and explain use if needed)

Substitution controls (using procedures or products that do not create silica must review SDS)

Other means of demo: _____

Different Products: _____

Other Substitutions: _____

Engineering controls (when using ventilation, draw air out and don't expose others to exhaust dusts)

Vacuuming: _____

Wetting: _____

Ventilation _____

Isolation: _____

Other Means: _____

Administrative controls (reducing exposure by work schedules, timing or planning options)

Control Points: _____

Work Schedule: _____

Other Means: _____

Secondary Silica Control Options (Check those options used and explain use if needed)

Personal protective equipment

Half Mask: _____ Cartridge Type: _____ Fit Test Confirmed: _____

Full-face Respirator: _____ Cartridge Type: _____ Fit Test Confirmed: _____

Supplied Air Unit: _____

Coveralls Required: _____

Hygiene and decontamination options (reducing exposure after work has stopped or during breaks)

Water or Washing Facility On Site: _____

Vacuuming clothing/self: _____

Safe work procedures and other details: _____

_____

_____

_____

Ventilation Plan (Sketch) - Show direction of airflow including makeup air locations and discharge air outlets

Location of Ventilation Plan: _____

Date Plan Reviewed by Workers: _____

Type of neg. air fans & no's:: _____

Ventilation Safety Checklist

- ☐ Makeup air free of possible contaminants
- ☐ Exhaust fan operation has failure warning
- ☐ Dilution fans not stirring up dust
- ☐ Wetting of materials used to keep dust down
- ☐ Workers not placed between contaminants created & exhaust inlet ports
- ☐ Discharge air not affecting others
- ☐ All workers equipped with approved respirators

Supervisor Name: _____ Supervisor Signature: _____

5.4.12.2 SILICA DUST EXPOSURE CONTROL PLAN

Silica Dust Exposure Control Plan

Work Location: _____ Date: _____

Prime Contractor: _____ Superintendent: _____

Project Manager: _____ CSO/First Aid Attendant: _____

Project : _____ Project Address: _____

Company Completing Work : _____

Address : _____ Contact: _____

Contact Phone # : _____ On site Supervisor: _____

Workers On Site		

Scope of Work: _____

Work Start Date: _____ Project Duration: _____

Employer Responsible For: _____

Supervisor Responsible For: _____

Worker Responsible For: _____

Hazards Identified (other than silica dust)	Control Measures
☐ Falls	
☐ Slipping	
☐ Confined Space	
☐ Workers Above	
☐ Workers Below	
☐ Noise	
☐ Electrical	

Overview of Work Procedure: _____

_____

Workers Trained In (training records must be available for review)			
Proper use of grinding equipment	yes / no	Proper use of admin controls	yes / no
Proper use of engineering controls	yes / no	Proper use of PPE	yes / no
Proper disposal methods	yes / no	Other (fall protection, swing stages, etc.)	yes / no

Respirators: Required: ☐ Y ☐ N Available: ☐ Y ☐ N Fit-tested: ☐ Y ☐ N

PPE Required: ☐ Coveralls ☐ Gloves ☐ Rubber Boots ☐ Eye Protection ☐ Reflective Vest ☐ Hearing Protection

Documents to Attach: ☐ Exposure control program ☐ Respiratory Protection Program ☐ Training Records
☐ SWP (tools and equipment)

Project Management Signature:		Position:		Date:	
Contractor Supervisor Signature:		Position		Date:	

Task/risk management matrix						
#	Date/Duration	Task	Engineering Controls	Administrative Controls	PPE	Supplies/ Equipment

Notes: _____

_____

_____

_____

Site Inspection Checklist				
Engineering Controls			Problem note	Problem corrected
Available at site	☐ Y	☐ N		
Operating correctly	☐ Y	☐ N		
Used appropriately	☐ Y	☐ N		
Effective in dust control	☐ Y	☐ N		
Administrative Controls				
Available at site	☐ Y	☐ N		
Used appropriately	☐ Y	☐ N		
In place before work started	☐ Y	☐ N		
Effective	☐ Y	☐ N		
Cleanup				
Vacuum used properly	☐ Y	☐ N		
Large pieces picked up	☐ Y	☐ N		
Vacuum capacity maintained	☐ Y	☐ N		
Pre-filters in place	☐ Y	☐ N		
Vacuum attachments used	☐ Y	☐ N		
Collection bags in place	☐ Y	☐ N		
Waste properly disposed of	☐ Y	☐ N		

6 Safe Work Practices

Safe Work Practices (SWPs) are developed with the intent of reducing the risk associated with certain activities. They are a set of written instructions for working safely when doing a particular task. SWPs provide guidelines pertaining to a particular task which can be helpful for training new employees or for employees who have recently changed to a new job.

Developing SWPs involves identifying tasks that have possible hazards associated with them and writing a set of guidelines for performing those tasks safely. SWPs are created and revised through collaboration of the Managers, Supervisors or workers who identify the need for the addition/revision, along with someone who is knowledgeable and has the technical expertise in the area of the safe work practice (and/or relevant reference material and legislation).

Safe Work Practices must be evaluated at regular intervals to ensure standards are kept to an adequate level to provide a safe work environment for everyone. All safe work practices will be reviewed on an annual basis and whenever an issue arises, to ensure that all relevant practices are addressed and clearly stated. This will be completed by all employees to ensure proper review and development of required safe job procedures. Any improvements or changes will be documented and distributed to all workers. These evaluations and changes will be documented as part of safety meetings and posted on safety boards.

The information presented in the following Safe Work Practices is intended for general use and may not apply to every circumstance. It is not a definitive guide to government regulations and does not relieve persons using this from their responsibilities under applicable OH&S legislation.

6.1 AERIAL LIFTS

AB OHS CODE Part 2, 3, 7, 9, 17, 18, 19 & 23

6.1.1 PURPOSE

The purpose of this program is to prevent incidents involving the unsafe operation of aerial platform lifts

6.1.2 SCOPE

An aerial lift is any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel. These include extendible boom platforms, aerial ladders, articulating boom platforms, manlifts, and scissor lifts. No person will operate an Aerial Lift until they have received adequate training, in accordance with manufacturers' specifications and deemed competent. Once they are deemed competent Goose Mechanical Inc. will authorize the worker to operate aerial lifts.

6.1.3 RESPONSIBILITIES

- Managers and Supervisors
  - Must ensure only trained personnel operate the equipment.
  - Establish and maintain a monthly and annual inspection program
  - Lifting devices are only operated by competent workers. Goose Mechanical Inc. must ensure that a lifting device is only operated by a competent worker authorized by Goose Mechanical Inc. to operate the equipment.
  - Establish a recordkeeping log for safety checks, maintenance, and repairs.
  - Are responsible for seeing that all provisions of this program are followed, that pre-use inspections are performed, and the equipment is in safe operating condition
- Employees
  - Personnel are responsible for visually checking the equipment they are using and reporting any observable wear, needed repairs, or damage to their supervisor.
  - Personnel shall report all equipment malfunctions immediately.
  - Goose Mechanical Inc. employees are responsible for following the requirements of this program

6.1.4 PRECAUTIONS

- Only operate the aerial platform on even stable ground.
- Before operating on concrete or other building surfaces, ensure the rating of the floor material can withstand the weight of the aerial platform, as well as the load.
- Do not exceed the maximum capacity for the platform.
- Do not extend the boom or raise the platform when on uneven surfaces or during high wind/gusty conditions.
- Do not drive the unit when the boom is extended or when the platform is elevated above the height of the unit.
- All harnesses and shock-absorbing lanyards must be worn once inside the platform. The lanyard must be attached inside the platform on the engineered anchor points.
- (Note: Regular lanyard to be worn where height is a factor.)
- Ensure the guardrails are secure prior to elevating the platform.
- Once elevated, do not leave the platform to access another work area.

- Do not stand on the guardrails to perform any work.
- When working in congested areas, use a ground spotter to help guide.
- Identify ground hazards and overhead hazards when maneuvering the platform.
- Keep hands inside the guardrails when the platform is approaching close to other structures.
- Do not lower the platform unless the area below is clear of personnel and obstructions.
- Prior to using any aerial platform to access and work on electrical equipment, ensure that the equipment is appropriately de-energized and locked out.
- Do not operate the aerial platform within 7m of any overhead power line.
- Do not operate the platform over top of other workers. If necessary, use a ribbon to barricade the area underneath where the platform is going to be operated.
- Ensure proper ventilation and atmosphere monitoring when operating units inside buildings.
- Aerial platforms will only be used according to manufacturer specifications. (Ensure reference in the machine.)
- The aerial platform is not to be used as an elevator.
- Only small hand tools are to be elevated onto the platform; the aerial platform is not a lifting device for material that cannot be contained inside the basket.

6.1.5 OPERATOR TRAINING

All operators of aerial platforms must review, understand, and demonstrate as per manufacturer training outline consisting of both classroom and practical experience in the safe operation to demonstrate competency prior to operating an aerial platform without supervision.

6.1.6 INSPECTION

Three types of inspections must take place prior to the aerial platform being used to conduct any work:

1. Pre-Operation Inspection must be completed on the unit prior to operation. A pre-operation checklist will need to be developed on-site, and the operator's manual for each type of aerial platform will be referred to when developing such inspection checklists.
2. Function Tests will be conducted as outlined in the operators' manual.
3. Conduct a hazard assessment and inspect the workplace for hazards and other trades working in the area where the machine is going to be used.

6.1.7 MODIFICATIONS

Aerial lifts may be "field modified" for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer or by any other equivalent entity to be at least as safe as the equipment was before modification.

6.1.7.1 AERIAL LIFT INSPECTION

Aerial Lift Operators Checklist

Unit #: _____ Date: _____ Hour Meter Reading: _____

Job Location: _____ Inspector: _____

Inspect and/or test the following prior to use:

Item	Checked	Comments (Include Deficiencies found
Engine Oil & Filter (if equipped)	☐	
Battery Fluid Level	☐	
Hydraulic Reservoir Level	☐	
Hydraulic Filter	☐	
Coolant Level (if equipped)	☐	
Fuel Level	☐	
Operating Controls	☐	
Emergency Controls	☐	
Belts & Hoses	☐	
Personal Protective Equipment	☐	
Tires & Wheels	☐	
Outriggers (if equipped)	☐	
Air, hydraulic and fuel system leaks	☐	
Loose or missing parts	☐	
Cables & Wiring harness	☐	
Placards, warnings, control markings	☐	
Operating Manual	☐	
Platform/Guardrail System	☐	
Gauges	☐	
Rated Capacity	☐	
Stop Button	☐	
Safety Devices - Fall Protection	☐	
	☐	

Deficiency	Corrective Action	Person Responsible	Target Date	Completion Date

Signature of Inspector: _____ Date: _____

6.2 ASBESTOS

AB OHS CODE PART 4 SEC 16, 21, 37, 29, 35, 38 & 40

6.2.1 PURPOSE

As part of the ongoing commitment to providing a safe work environment, the following procedure has been established to address asbestos and prevent incidents associated with asbestos exposures. Asbestos is well-recognized as a health hazard and is highly regulated. An estimated 1.3 million workers in the construction and general industry face significant asbestos exposure on the job. Most substantial exposures occur in the construction industry, particularly during the removal of asbestos during renovation or demolition. Employees are also likely to be exposed during the manufacture of asbestos products (such as textiles, friction products, insulation, and other building materials) and automotive brake and clutch repair work.

6.2.2 WORKER EXPOSURE

The inhalation of asbestos fibres by workers can cause serious diseases of the lungs and other organs that may not appear until years after exposure. For instance, asbestosis can cause a buildup of scar-like tissue in the lungs and result in loss of lung function that often progresses to disability and death. Asbestos fibres associated with these health risks are too small to be seen with the naked eye, and smokers are at a higher risk of developing some asbestos-related diseases.

The potential for worker exposure to asbestos will be identified during the hazard assessment. Goose Mechanical Inc. will ensure that a worker's exposure to asbestos is kept as low as reasonably achievable. Employees will not be exposed to airborne concentrations of asbestos in excess of 0.1 fibres per cubic centimetre of air (.1 f/cc) over an 8-hour time period. Atmospheric testing results should be assessed before a worker is exposed.

6.2.3 EDUCATION & TRAINING

Goose Mechanical Inc. will ensure that a worker who may be exposed to asbestos at a worksite:

- is informed of the health hazards associated with exposure to asbestos,
- is informed of measurements made of airborne concentrations of asbestos at the worksite, and
- is trained in procedures developed by the employer to minimize the worker's exposure.

Goose Mechanical Inc. will ensure that a worker who enters a restricted area that is designated as a restricted area due to the presence of asbestos:

- has successfully completed a course of instruction approved by a Director of Occupational Hygiene, and
- has in the worker's possession the original valid certificate of completion of the course issued to the employee.
- Is aware of and observes all labelling and signs for materials that may / may not contain asbestos.

6.2.4 ASSESSING RISK

There are eight major factors that assist in evaluating the condition of a particular asbestos installation. Assessment and determination of health risk should be conducted by competent personnel trained in the evaluation of potential asbestos exposure risk.

- condition of material, water damage, exposed surface area, accessibility, activity and movement, air plenum or direct air stream, friability, or asbestos content

6.2.5 CONTROL MEASURES

If a threat of asbestos exists, Goose Mechanical Inc. will include measures to be used to prevent the uncontrolled release of asbestos and the procedures to be followed if there is an uncontrolled release.

6.2.5.1 METHODS TO PREVENT WORKER CONTAMINATION

Goose Mechanical Inc. will:

- provide workers in a restricted area with protective clothing that protects other clothing worn by the worker from asbestos contamination,
- ensure that workers' street clothing is not contaminated by asbestos, and
- ensure that a worker does not leave a restricted area until the worker has been decontaminated.

6.2.5.2 PROTECTIVE CLOTHING

Every person working at an asbestos abatement project must wear appropriate personal protective equipment. Workers must use:

- respiratory protective equipment during all construction work and most maintenance work around friable asbestos where fibre levels are not controlled
- protective clothing to reduce the risk of contaminating street clothing, skin and hair; and
- other protective equipment such as eye protection, hard hats, hearing protection and steel toe footwear as site conditions or regulations require.

If applicable, Goose Mechanical Inc. will supply workers conducting tasks in a restricted area with protective clothing that protects other clothing worn by the worker from asbestos contamination.

6.2.5.3 ASBESTOS ABATEMENT

Asbestos abatement procedures vary depending on the type, amount and location of the asbestos. In general, the methods can be divided into three categories — low risk, moderate risk and high risk — according to their potential for generating airborne asbestos fibres. All procedures follow the same four principles:

- isolate the work area
- protect workers
- minimize the release of asbestos fibres; and
- ensure adequate clean-up and decontamination.

If we are involved in a building being altered or renovated, Goose Mechanical Inc. will ensure that materials in the area of the alterations or renovations that could release asbestos fibres are encapsulated, enclosed or removed.

6.2.6 DEMOLITION & RENOVATION

If a building is to be demolished, Goose Mechanical Inc. will ensure that materials with the potential to release asbestos fibres are removed first. If a building is being altered or renovated, Goose Mechanical Inc. will ensure that materials in the area of the alterations or renovations that could release asbestos fibres are encapsulated, enclosed or removed.

6.2.7 ASBESTOS WASTE

Goose Mechanical Inc. will ensure that asbestos waste is stored, transported, and disposed of in sealed containers that are impervious to asbestos and asbestos waste. Goose Mechanical Inc. will also ensure that a container of an asbestos product and asbestos waste is clearly labelled:

- to identify the contents as an asbestos product and carcinogenic, and
- to warn handlers that dust from the contents should not be inhaled.
- any material that is labelled as ACM or PACM must not be disturbed

6.2.8 HEALTH ASSESSMENTS

If required, a health assessment will comply with the requirements outlined in provincial OHS. The person with custody of the health assessment record must ensure that no person, other than the worker or health professional who conducts the health assessment, has access to the exposed worker's health assessment unless:

- the record is in a form that does not identify the worker or
- the worker gives written permission for access by another person.

Goose Mechanical Inc. will ensure that a worker undergoes a health assessment:

- not more than 30 calendar days after the worker becomes an exposed worker and
- every two years after the first health assessment. Exposed workers may refuse to undergo part or all of a health assessment by giving the employer a written statement refusing it.

6.2.9 FRIABLE VS NON-FRIABLE MATERIALS

Asbestos-containing materials are categorized as friable or nonfriable in order to show how easily they may release asbestos fibres when disturbed.

A material that is ***FRIABLE*** is one that can be crumbled, pulverized or powdered by hand pressure. If a friable asbestos-containing material is damaged or disturbed, it presents an inhalation risk because asbestos fibres are more readily released into the air. Examples of friable materials include sprayed fireproofing on structural steelwork or thermal insulation on pipes.

A ***NON-FRIABLE*** asbestos product is one in which the asbestos fibres are bound or locked into the product matrix so that the fibres are not readily released. Such a product would present a risk for fibre release only when it is subject to significant abrasion through activities such as sanding or cutting with electric power tools. Examples of nonfriable asbestos products include vinyl asbestos floor tiles, acoustic ceiling tiles, and asbestos cement products.

6.2.9.1 ASBESTOS ABATEMENT FORM

Asbestos Abatement Checklist

Location: _____ Date: _____

Documentation		Site Condition	
Has OH&S been notified of project?	☐ Yes ☐ No	Work area enclosed with airtight barrier	☐ Yes ☐ No
Site specific work procedures on site	☐ Yes ☐ No	Asbestos wet down prior to removal	☐ Yes ☐ No
Workers received approved course of instruction (high risk)	☐ Yes ☐ No	Decontamination area has 3 stages (high risk)	☐ Yes ☐ No
Respiratory Code of Practice	☐ Yes ☐ No	Wetting technique with low pressure spray	☐ Yes ☐ No
SDS Available on site	☐ Yes ☐ No	Waste disposal is properly labeled	☐ Yes ☐ No
Signs posted advising of exposure	☐ Yes ☐ No	Min 6-mil poly for waste disposal	☐ Yes ☐ No
Exposed workers received health assessment within last 2 years	☐ Yes ☐ No	Shower facilities have hot/cold water (high risk)	☐ Yes ☐ No
Other:_____	☐ Yes ☐ No	Entrance/exit has air lock (high risk)	☐ Yes ☐ No
Monitoring		Wet method/HEPA vacuums for clean up	☐ Yes ☐ No
Site monitored and inspected regularly	☐ Yes ☐ No	Work area under negative pressure	☐ Yes ☐ No
Airborne asbestos is monitored	☐ Yes ☐ No	Negative air unit ducted outdoors	☐ Yes ☐ No
Area outside of containment or work area monitored for asbestos	☐ Yes ☐ No	Workers clean shaven	☐ Yes ☐ No
HEPA negative air units and vacuum tested on site	☐ Yes ☐ No	Other: _____	☐ Yes ☐ No
Hydro test water removed:	☐ Yes ☐ No	Details:	
Other: _____			
Other: _____			
Other: _____			

Comments: _____

_____

_____

Name	Signature	Name	Signature

Supervisors Name: _____ Signature: _____

Date: _____

6.3 CHEMICAL & BIOLOGICAL HAZARDS

AB OHS CODE PART 4, SEC 16-20 & SCHEDULE 1

6.3.1 PURPOSE

The purpose of this program is to prevent incidents while using chemicals or being around biological hazards.

6.3.2 WORKERS EXPOSED TO HARMFUL SUBSTANCES

Goose Mechanical Inc. will ensure that a worker's exposure to a harmful substance is kept as low as reasonably practicable/reasonably achievable and does not exceed the substance's OELs. This is based on the principle that for each substance, there is a safe or tolerable level of exposure below which no significant adverse health effects are likely to occur.

Many factors affect the total exposure, including:

- the potential for absorption into the body by inhalation, ingestion or skin absorption,
- the duration of exposure, and
- the effect of simultaneous exposure to multiple substances.

Harmful substances will be identified during the hazard assessment process if there is potential exposure. Worker exposure to any harmful substances, will be kept as low as reasonably achievable. Worker's exposure to any substance will not exceed provincial occupational exposure limits. Atmospheric testing results should be assessed before a worker is exposed.

Factors that might be considered when evaluating exposure to a harmful substance include:

- what is common practice in other workplaces that use the substance or process? Are exposure levels at the workplace, similar to those at other workplaces that use the substance or process?
- has the employer assessed whether exposure can be eliminated by substitution with a less toxic substance or other control measures? If these measures have not been implemented, what is the rationale for not doing so?
- are workers exposed to multiple substances at the workplace that may have synergistic, potentiating or additive effects?
- are workers experiencing adverse health effects even though exposure may be at or below the OELs?

The legislation requires that exposure be kept as low as reasonably practicable where there are harmful substances used in the workplace for which there are currently no OELs. To determine safe levels of exposure in such circumstances, consult other jurisdictions and organizations as well as the product manufacturer to obtain guidance on safe exposure limits.

6.3.3 LIMITS

Goose Mechanical Inc. will ensure to maintain and keep a record of all hazardous substances that are used in the workplace. For each substance being used, there is a safe or tolerable level of exposure below which no significant adverse health effects are likely to occur. The potential to encounter chemicals and biological hazards happens on a daily basis. No worker may be exposed to a substance listed provincial OHS requirements at a concentration exceeding

its ceiling limit at any time. The phrase "reasonably practicable" is a legally defined term that is assessed using the "reasonable person test." For example, what is done in similar workplaces under similar circumstances?

To determine whether worker exposure is "as low as reasonably practicable," the following factors are considered:

- assessment on whether exposure can be eliminated by substitution with a less toxic substance or other control measures? If these measures have not been implemented, what is the rationale for not doing so?
- what is common practice in other workplaces that use the substance or process? Are exposure levels at the workplace similar to those at other workplaces that use the substance or process?
- are workers exposed to multiple substances at the workplace that may have synergistic, potentiating or additive effects?
- are workers experiencing adverse health effects, even though exposure may be at or below the OELs?

The three main routes of entry of a substance into the body are:

- inhalation — by being inhaled
- dermal — by being absorbed through the skin; and
- oral — by being swallowed.

Inhalation is the most common route of entry. Most exposure standards, including the OELs, are based on exposure resulting from the inhalation of substances suspended in the air, either as a gas, vapour or aerosol such as dust, mist or fume. Another way substance enters the body is absorption through the skin. The amount of chemicals absorbed through the skin depends on the chemical, and it is important to take this into consideration when determining exposure. Oral exposure or ingestion usually occurs by accident through the contamination and subsequent ingestion of food or materials that are chewed. Contaminants can also be ingested through hand-to-mouth contacts such as nail-biting or hand contamination of food or smoking materials.

There is a wide variation in individual susceptibility to adverse effects from substances. A small percentage of workers may feel discomfort at or below the OEL. The OEL should not be used as a fine line between safe and unsafe conditions or as an index of relative toxicity. Some workers may be affected more seriously due to the aggravation of a pre-existing condition or by the development of an occupational illness. In addition, some individuals are extremely sensitive to certain industrial chemicals due to genetic factors, personal habits such as smoking or alcohol use, the use of drugs or medications, or previous exposure. These workers may not be adequately protected from adverse health effects resulting from exposure to substances that are at concentrations at or below their OEL. The extent to which these workers need more protection should be evaluated by an occupational physician.

Provincial OHS requires that the exposure be kept as low as reasonably practicable where there are harmful substances used in the workplace for which there are currently no OELs. To determining safe levels of exposure in such circumstances, consult other jurisdictions and organizations as well as the product manufacturer to obtain guidance on safe exposure limits.

6.3.4 HAZARD ASSESSMENT

A hazard assessment will be used to determine the exposure or potential for exposure of workers to a harmful substance at their worksite. An exposure hazard cannot be controlled without knowing the identity of the harmful

substance and the extent to which workers are exposed to it. The toxicity of the substance — type of action, route of exposure and target organs — must be known, as well as the duration of exposure.

Other factors that may contribute to the degree of hazard include:

- the nature of the process in which the material is used or generated
- the possibility of reaction with other physical or chemical agents
- the degree to which controls such as ventilation and enclosure are effective; and
- the type and degree of toxic response in both the "average" and highly susceptible worker.

Almost every work environment has potential or actual hazards that need to be recognized, measured and monitored. An initial assessment will be performed in any work area where there is a potential for exposure or there have been complaints of health effects experienced by workers. The assessment will include a walk-around survey of the operation, identifying all the chemicals used at the worksite, talking to workers about past experiences and safety concerns, and measuring contaminants in the air. Consider the raw materials being used, how they are modified and the finished product.

Each process step from raw material to the finished product must be evaluated under normal and anticipated emergency conditions. Re-assessments should be conducted on an annual basis and when:

- new equipment or work processes that could affect worker exposure are introduced to the worksite
- work practices or procedures change; or
- workers complain of adverse effects during or after work shifts.

The hazard assessment must be performed by a competent individual. Workers should be permitted and encouraged to observe and participate in monitoring activities as long as doing so does not interfere with the activities. Workers frequently have the experience to identify sources of exposure, indicate when exposure may differ from "normal," and identify conditions that are routine or not routine.

Once hazards at the workplace have been identified, the employer must take steps to eliminate, or if this is not possible, control the hazards. To eliminate the hazard, the employer may substitute a less hazardous substance or modify equipment or processes to eliminate emissions. If the elimination of the hazard is not possible, various control strategies can be used.

Investigation of engineering controls will be done first, then administrative controls, and finally, the use of appropriate personal protective equipment. Engineering controls minimize or eliminate exposure by altering or removing the source.

Administrative controls influence exposure by modifying the circumstances of the worker's exposure. Personal protective equipment should only be considered when other control measures are not practicable or do not sufficiently reduce the hazard.

Workers who may be exposed to a harmful substance must receive training in the procedures that minimize their exposure to the substance. The training must, at a minimum, include:

- Information describing the health hazards associated with exposure to the substance, and
- Training in the procedures to be used to reduce exposure.

If the hazard assessment indicates that there is a potential for a worker to be exposed to a substance in excess of its OEL, airborne concentrations of the substance will be measured.

Measurements must be made in accordance with NIOSH analytical methods or methods acceptable to a Director of Occupational Hygiene. The resulting measurement will be important when establishing effective control measures to minimize worker exposure.

6.3.5 WORKER DECONTAMINATION

Workers, their clothing, and equipment may become contaminated during work activities through exposure to harmful substances, including chemical or biological hazards. Suitable means for decontamination will be accessible to allow workers to remove the contamination before leaving the worksite.

The type of decontamination facility required depends on the harmful substance and the operation. Workers should be able to leave the worksite without carrying away any amount of harmful substances that could adversely affect their health or the health of other persons with whom they have contact.

6.3.6 STORAGE OF HARMFUL SUBSTANCES

All harmful substances will be clearly identified at a worksite even if they are not controlled products or are controlled products exempt from WHMIS information requirements. For example, gasoline purchased from a gas station is considered a consumer product exempt from WHMIS information requirements. However, when the gasoline is taken to a worksite, its container must be clearly identified. Harmful substances will be stored in a manner that does not present a hazard to workers. Information about storing such substances can be found in Safety Data Sheets (SDS's) or will be information provided by the manufacturer.

Goose Mechanical Inc. will ensure that the substance is stored in a proper manner and protected from conditions, including excessive temperature, shock or vibration that could reduce the stability or increase the potential hazard of the substance.

Information about storing such substances can be found in Safety Data Sheets (SDS's) or will be information provided by the manufacturer.

6.3.7 EDUCATION

Workers who may be exposed to a harmful substance must receive training in the procedures that minimize their exposure to the substance. The training must, at a minimum, include:

- information describing the health hazards associated with exposure to the substance, and
- training in the procedures to be used to reduce exposure.

6.3.8 EMERGENCY BATHS, SHOWERS, EYE WASH EQUIPMENT

Goose Mechanical Inc. will provide facilities so that chemicals splashed into the eyes or onto the body can be immediately diluted and washed away. Quick dilution and removal help to minimize potential damage to the eyes, skin and body parts exposed to the chemical. The facilities selected will be appropriate to the hazard and the extent to

which workers are exposed to that hazard. To be effective when needed, emergency baths, showers, eyewash and other similar equipment will be inspected and maintained according to the manufacturer's specifications.

Emergency baths, showers, eyewash stations and similar equipment should be:

- located on the same floor level and area as the work process that creates the hazard,
- un-obstructed always for quick access, and
- marked with clear signage to indicate their location.

6.3.9 CHEMICAL SUBSTANCES

Goose Mechanical Inc. has developed and maintained a list of all chemicals, and biological substances that are regularly handled, used, stored, produced, or disposed of in the course of work processes and that may be hazardous to the health and safety of the workers at the worksite. All chemicals and biological substances that are controlled products are identified on the list. This list is readily available to the workers at the worksite.

6.3.10 PRECAUTIONS

Goose Mechanical Inc. will take all reasonable steps to ascertain and record the precautions that need to be taken with respect to the substances to ensure the health and safety of workers and clearly mark containers holding the substances with the name of the substance as set out in the list. The company shall take all reasonable steps to:

- Ascertain and record the hazards that may arise from the handling, use, storage, production, or disposal of the substance at the place of employment.
- Ascertain and record the precautions that need to be taken with respect to the substance to ensure the health and safety of workers.
- Clearly mark the container holding the substance with the name of the substance as set out in the list.

6.4 CLEANING SOLVENTS

6.4.1 PURPOSE

To prevent incidents associated with the improper use of cleaning and flammable solvents.

6.4.2 SCOPE

Every workplace has chemicals - ranging from cleaning products to full-scale chemical production. If chemicals are not used, stored and handled properly, they can cause injury, illness, disease, fire, explosions, or property damage. Know the hazards of chemicals and appropriate precautions to take to work safely and avoid injury. Managers must be aware of all solvents/flammable material that is used on the job and be sure that all workers who use these materials have been instructed in their proper use and any hazards they pose.

6.4.3 KEY SAFE PRACTICES

- Use non-flammable solvents for general cleaning.
- When flammable liquids are used, make sure that no hot work is permitted in the area.
- Store flammable material and solvents in special storage areas away from heat, spark, flame, and direct rays of the sun.
- Check the toxic hazards of all solvents before use (SDS's).
- Provide adequate ventilation where all solvents and flammable materials are being used.
- Use goggles or face shields to protect the face and eyes from splashes or sprays.
- Use the appropriate gloves to protect the hands.
- Wear protective clothing to prevent contamination of worker's clothes.
- When breathing hazards exist, use the appropriate respiratory protection.
- Never leave solvents in open tubs or vats – return them to storage drums or tanks.
- Ensure that proper containers are used for transportation, storage and field use of solvents or flammable material.
- Where solvents are controlled products, ensure all workers using or in the vicinity of use or storage are trained and certified in the Workplace Hazardous Materials Information Systems. Ensure all WHMIS requirements are met.

6.5 COMMERCIAL VEHICLE OPERATION (>4500 KG GWR)

NSC DAILY VEHICLE TRIP INSPECTION PART 1 (4) (A)(13); 8-9
COMMERCIAL VEHICLE DRIVERS HOURS OF SERVICE REGULATIONS SECTION 4(A); 12; 81
NSC STANDARD 10: CARGO SECUREMENT, PART 1, DIVISION 2

6.5.1 PURPOSE

The purpose of this program is to prevent incidents involving the unsafe operation of commercial vehicles.

6.5.2 GENERAL SAFETY PRECAUTIONS

The National Safety Code (NSC) standards serve as guidelines for each province or territory to prepare and adopt legislation to guide and regulate commercial carriers. It is the provincial legislation and applicable federal legislation, which directs Goose Mechanical Inc. operations within each province, not the NSC Standards.

Although much of this legislation addresses Goose Mechanical Inc. responsibilities, the driver plays an important role in all these areas.

6.5.3 MAINTAINING DRIVER FILES

The registered owner of every commercial vehicle will maintain, for each of that owner's drivers, a driver record file.

The following information will be retained for **at least 5** years from the date they are created, established or received, for each person who is authorized to drive:

- Completed application form
- Record of 3 years' employment history
- Driver's abstract dated within 30 days of hiring and every 12 months thereafter
- Record of all convictions and administrative penalties for Provincial and Federal legislation relating to the operation of a commercial motor vehicle
- Record of all training completed, including dangerous goods training certificate, Hours of Service, etc.
- Valid Driver's License

The records will be:

- kept at our principal place of business,
- be retained for at least 5 years from the date they are created, established or received, and
- be readily available for inspection by a peace officer during the carrier's regular business hours.

6.5.4 HOURS OF SERVICES & RECORD KEEPING

The Hours of Service Regulations govern the maximum driving times and minimum off-duty times of commercial vehicle drivers employed by Goose Mechanical Inc.. As per regulations, we require all drivers to keep a log record of their daily work activities- this includes time spent driving, time spent off-duty, time spent working (but not driving), etc. A driver is to keep a duplicate of all the daily logs for a period of at least 6 months from the date that the information is recorded in the daily log- originals of each log are to be provided to Goose Mechanical Inc.

Goose Mechanical Inc. drivers are exempted from completed daily logs if all the following circumstances apply:

- the driver is operating our commercial vehicle within a 160 km radius of our home terminal;
- the driver starts and finishes each day at our home terminal, then has a consecutive 8 hours off for rest;
- Goose Mechanical Inc. and the driver(s) consistently maintain records for the driver's duty status; and
- The driver is not driving under a permit issued by Commercial Vehicle Driver's Hours of Service Regulations.

As a Provincially regulated company, Goose Mechanical Inc. drivers are not exceeding 13 hours of driving time or drive at any time after they have been on duty for 15 or more consecutive hours.

As a Federally regulated company, Goose Mechanical Inc. will not request, require or allow a driver to drive after the driver has accumulated 13 hours of driving time in a day, and/or 14 hours of on-duty time in a day.

6.5.5 COMMERCIAL VEHICLE INSPECTION

All Goose Mechanical Inc. trucks, tractor-units and trailers are to be inspected every 24 hours utilizing the criteria listed in Schedule 1 of the National Safety Code. Goose Mechanical Inc. will not permit a driver to drive a commercial vehicle unless:

- the commercial vehicle has been inspected, and
- no major defect was detected in the vehicle during the daily trip inspection.

The daily trip inspection is valid for 24 hours from the time recorded in the trip inspection report. A daily trip inspection is valid for 24 hours from the time recorded in the trip inspection report.

6.5.6 DEFECTS FOUND DURING INSPECTIONS

Provincially regulated companies – Drivers are to report to Goose Mechanical Inc. and indicate directly on the inspection report any defects or deficiency that would affect the safe operation of the vehicle. If a defect has been reported, we will repair the vehicle as per manufacturer specifications before it is permitted to be operated.

Federally regulated companies - A person conducting an inspection shall record on the inspection report any defects detected during the inspection and shall report such defects to Goose Mechanical Inc. prior to the next required inspection. Goose Mechanical Inc. will not permit a person, and no driver shall drive a commercial vehicle on a highway when a major defect is present on the vehicle.

6.5.7 CONDUCTING REPAIRS

A driver will inform Goose Mechanical Inc. of any defects or deficiencies that would affect the safe operation of the vehicle. When Goose Mechanical Inc. receives notice of the defect in respect of one of his commercial vehicles, we will repair or modify the vehicle, in accordance with instructions provided by the manufacturer. Goose Mechanical Inc. will not permit a person to drive a commercial vehicle on a highway when a major defect is present on the vehicle.

6.5.8 CARGO SECUREMENT

Goose Mechanical Inc. will ensure that any cargo transported by Goose Mechanical Inc. is contained, immobilized or secured so that it cannot leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle or shift. Cargo must be firmly secured on or within a vehicle by:

- Structures of adequate strength

- Dunnage (loose materials used to support and protect cargo) or dunnage bags (inflatable bags intended to fill space between articles of cargo or between cargo and the wall of the vehicle)
- Shoring bars
- Tiedowns or
- A combination of the above

6.5.9 DRIVER IMPAIRMENT

Goose Mechanical Inc. will not permit a driver to operate a vehicle if:

- the driver is impaired to the point where it is unsafe for the driver to drive, which includes:
    a. Impairment from fatigue,
    b. Impairment from a prescription/over the counter medication,
    c. Impairment by use of alcohol and/or drugs/narcotics
- driving would jeopardize or be likely to jeopardize the safety or health of the public, the driver or the employees of Goose Mechanical Inc.
- the driver is the subject of an out-of-service declaration; or
- the driver, in doing so, would not be following Hours of Service Regulations.

6.5.10 COMPLETION OF LOGBOOKS

Every driver is required to fill out a daily log each day that accounts for all of the driver's on-duty time and off-duty time for each day. A driver is exempted from filling out a daily log if:

- the driver operates or is instructed by the motor carrier to operate a commercial vehicle within a radius of 160 km of the home terminal
- the driver returns to the home terminal each day to begin a minimum of 8 consecutive hours of off-duty time
- Goose Mechanical Inc. maintains accurate and legible records showing, for each day, the driver's duty status and elected cycle, the hour at which each duty status begins and ends and the total number of hours spent in each status and keeps those records for a minimum period of 6 months after the day on which they were recorded
- the driver is not driving under a permit issued under the Regulations.

6.5.11 RECORD OF DUTY

Goose Mechanical Inc. will ensure that each commercial vehicle is equipped with an Electronic Logging Device (ELD), and it will be mounted in a fixed position during the operation of the commercial vehicle and visible to the driver in normal driving position.

Exceptions include:

- operated under a permit;
- operated to which an exemption has been issued under the Act;
- the subject of a rental agreement of no longer than 30 days that is not an extended or renewed rental of the same vehicle; or
- manufactured before model year 2000.

Goose Mechanical Inc. will require the driver to record each day, all the information associated with their record of duty status as their duty status changes. The above requirements do not apply if:

- the driver drives or is instructed by the motor carrier to drive a commercial vehicle within a radius of 160 km of the home terminal;
- the driver returns to the home terminal each day to begin a minimum of 8 consecutive hours of off-duty time; and
- the motor carrier maintains accurate and legible records showing, for each day, the cycle the driver followed and on-duty times and keeps those records and the supporting documents relating to those records for a minimum period of 6 months after the day on which each record was recorded.

Provincially-regulated commercial vehicles may not be required to be equipped with ELDs. Where the ELD requirement is not in force, a documented record of duty or logbook is acceptable.

6.6 COMPRESSED AIR

6.6.1 PURPOSE

The purpose of this program is to prevent incidents involving the unsafeuse of compressed air.

6.6.2 GENERAL SAFETY PRECAUTIONS

Air-powered tools in construction range from stapling guns to jack hammers. If not treated with respect, these tools can become a detriment rather than a benefit.

1. Compressed air must not be used to blow debris or to clear dirt from any worker's clothes.
2. Ensure that the air pressure has been turned off and the line pressure relieved before disconnecting the hose or changing tools.
3. All hose connectors must be of the quick disconnect pressure release type with a "safety chain/cable."
4. Wear personal protective equipment such as eye protection and face shields. Restrict access to the area or ensure other workers in the area are aware of hazards.
5. Hoses must be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced.
6. A proper pressure regulator and relief device must be in the system to ensure that correct pressures are maintained.
7. The proper air supply hoses must be used for the tool/equipment being used.
8. The equipment must be properly maintained according to the manufacturer's requirements.

6.7 COMPRESSED GAS CYLINDERS

6.7.1 PURPOSE

This information is to help prevent incidents associated with the improper usage and storage of compressed gas cylinders and to establish the minimum standard for the use and handling of compressed gas cylinders.

6.7.2 SCOPE

Thousands of products are available which contain gases and mixtures of gases stored under pressure in cylinders. Most of these gases are classified as "compressed gases" according to WHMIS 2015. Mishandling compressed gas cylinders can be disastrous, which can have an internal pressure of up to 2,500 pounds per square inch.

6.7.3 GENERAL SAFETY PRECAUTIONS

- Ensure cylinders are properly marked to indicate their rated pressure and the type of gas they contain
- Never rely on the colour of the cylinder for identification. Colour coding is not reliable because cylinder colour may vary with the supplies
- Store cylinders upright and in a dry, well-ventilated area away from doors, stairs, elevator shafts, traffic, and heat sources. Acetylene cylinders should always be kept upright
- Ensure cylinders are not secured to equipment that could become part of an electrical circuit
- Post a "no smoking" sign near the storage area
- Keep full cylinders separated from empties
- Always properly secure cylinders to keep them from falling during storage, transport, and use
- Use proper moving equipment like dollies or lifting cradles or ask for assistance if the equipment is not available. Gas cylinders can be very heavy, and they can be extremely dangerous if handled incorrectly
- Never slide, drag, or drop cylinders
- Remove the regulator and replace the cap, if applicable, before moving cylinders
- Always keep the valve keys or wrenches with the cylinders so they can be closed quickly if needed
- Never use a leady cylinder. Notify your supervisor and the supplier
- Always follow the manufacturer instructions for safe operation

6.7.4 STORAGE

- Oxygen cylinders shall be stored in racks, made of non-combustible material, and stored away from occupied buildings.
- Oxygen cylinders shall be separated from fuel gas cylinders, hydrocarbons, or other combustible materials
- Cylinder storage areas shall be identified as to the contents of the cylinders and whether they are full or empty. Empty cylinders shall be marked or tagged.
- Storage racks shall be capable of supporting cylinders in an upright position

6.7.5 REFILLING

Compressed gas cylinders shall only be refilled by the Owner or authorized personnel in compliance with statutory requirements.

6.8 CRANES, HOISTS, LIFTING DEVICES (>2000 KG RATING) & CRITICAL LIFTS

AB OHS CODE PART 6 SEC 59-114

6.8.1 PURPOSE

The purpose of this practice is to outline procedures for safe operations and the training requirements for cranes, hoists, and lifting devices.

6.8.2 GENERAL SAFETY PRECAUTIONS

Goose Mechanical Inc. has implemented this policy to inform workers of the written Cranes, Hoists and Lifting Devices Safe Work Practices in the workplace. This ensures the health and safety of workers at the worksite. The company is responsible for ensuring that the following policy for control, training, personal protective equipment, and safe work practices is enforced.

6.8.3 LABELLING LIFTING DEVICES

Goose Mechanical Inc. will ensure that a lifting device has a plate or weatherproof label permanently secured to it that legibly shows:

- The manufacturer's rated load capacity.
- The manufacturer's name.
- The model, serial number and year of manufacture or shipment date.

If a lifting device is not commercially manufactured, an employer must ensure that it has a plate or weatherproof label permanently secured to it that legibly shows the rated load capacity according to the professional engineer's certification.

No Crane, Hoist or Lifting device shall be used with a load that exceeds its safe working load.

6.8.4 OPERATOR REQUIREMENTS

Goose Mechanical Inc. will ensure that a lifting device is only operated by a competent worker. The operator, before operating a lifting device, must be able to demonstrate competency in operating the device, including, where relevant, the following:

- Operating the lifting device in a proper, safe, controlled, and smooth manner in accordance with the manufacturer's specifications.
- Reading and understanding of lift plans.
- Maintaining the equipment logbook and the operator's logbook.
- Selecting the appropriate boom, jib, and crane configuration to meet lift requirements and determine the net lifting capacity of this configuration.
- Determining the number of parts of line required.
- Thoroughly understanding the information in the operating manual and understanding the device's limitations.

6.8.5 LIFTING DEVICE OPERATION

Goose Mechanical Inc. will ensure that a lifting device is only operated by a competent worker authorized by the employer to operate the equipment.

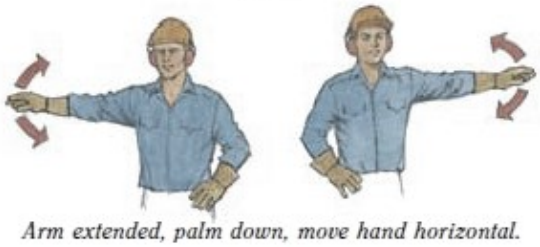
6.8.6 SIGNAL PERSON

Goose Mechanical Inc. does not permit an operator to utilize a lifting device if there is an unobstructed view of the area for where the equipment is to be operated. If there are any obstructions, the operator must utilize a signaller to direct the lift operation. A signal person must be competent in crane/hoisting equipment, hand/voice signals that will transmit the lifting requirements by voice communication or hand signals to the lifting equipment operator. This person must also have a basic understanding of crane/hoisting equipment operation and limitations and rigging.

- Rigging loads and equipment using industry-standard best practices.
- Interpreting sling charts and lift plans
- Selecting and applying the proper rigging components for the load to be lifted.
- Visually inspect rigging components on a regular/daily basis and remove from service rigging components that are worn or damaged.
- Knowing and understanding the general operating parameters of lifting equipment
- Knowing and understanding how to apply different sling rigging configurations and which are most appropriate for certain applications.
- Being aware of overhead hazards, proximity to other workers, proximity of other cranes, and other construction equipment. Loads are not to be swung over any workers.
- Keeping the swing path of the load and the tail swing of the crane counterweight / super lift carrier/ tray clear of obstructions, hazards, vehicular and pedestrian traffic.
- Communicating with the crane operator throughout all stages of the rigging and lifting process.
- Being capable and knowledgeable of the weight of the load to be lifted.
- Being capable and knowledgeable of using the hand signal chart for hoisting loads.

6.8.7 HAND SIGNALS

STOP



Arm extended, palm down, move hand horizontal.

HOIST

With forearm vertical, finger pointing up, move hand in small horizontal circles.

LOWER

With arm extended down, move forefinger; pointing down, move hand in circles.

RAISE BOOM

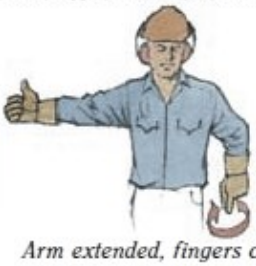
Arm extended, fingers closed, thumb pointing upward.

LOWER BOOM

Arm extended, fingers closed, thumb pointing downward.

RAISE THE BOOM AND LOWER THE LOAD

With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.



Arm extended, fingers closed, thumb pointing upward, other arm bent slightly with forefinger pointing down, and rotate hand.

LOWER THE BOOM AND RAISE THE LOAD

With arm extended, thumb down, flex fingers in and out as long as load movement is desired.

Arm extended, fingers closed, thumb down, other arm vertical, forefinger upward and rotate hand.

EXTEND BOOM

Both fists in front of body, with thumbs pointing outward.

RETRACT BOOM

Both fists in front of body, with thumbs pointing toward each other.

SWING

Arm extended, point in direction of swing of boom.

MOVE SLOWLY

Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal (hoist slowly shown as example)

DOG (STOP) EVERYTHING

Clasp hands in front of body.

6.8.8 LOGBOOKS

Goose Mechanical Inc. will ensure that there is a paper and/or electronic version of the logbook for each lifting device at the worksite. The logbook is critical during lifting operations, and the company will ensure:

- The logbook is readily available for inspection by a health and safety officer at any time.

- The most current logbook of the lifting device accompanies it and is available to the operator at all times.
- Stays with the lifting device if ownership of the device changes.

6.8.9 CRITICAL LIFT PLANS

A critical lift is a lift that is considered non-routine and where one or more of the following apply:

- load exceeds 75% of the rated capacity/load chart,
- load endangers existing facilities due to restriction of movement, energized power lines, pressurized pipe, etc.,
- two cranes are required,
- lifting personnel (other than manlifts manufactured for this purpose),
- special rigging required engineered lifts,
- non-symmetrical loads, and/or
- close proximity to overhead powerlines (within safe limit of approach).

A critical Lift plan will be completed for any lifts that; load exceeds 75% of load chart, load endangers existing facilities, two booms required, special rigging required, operator not about to see the load, engineered lift, or if the sideload exceeds 1-1.5%. This is documented on the ***Critical Lift Plan Form***.

Goose Mechanical Inc. will ensure any critical lift form has a space for approvals/signatures of the crane operator, supervisor/manager and a representative from the hiring client / host facility. These signatures must be obtained before a critical lift is performed.

6.8.10 OPERATOR REQUIREMENTS

Goose Mechanical Inc. will ensure that a lifting device is only operated by a competent worker. Before operating a lifting device, the operator, must be able to demonstrate competency in operating the device, including, where relevant, the following:

- Operating the lifting device in a proper, safe, controlled, and smooth manner in accordance with the manufacturer's specifications
- Reading and understanding lift plans
- Maintaining the equipment logbook and the operator's logbook
- Selecting the appropriate boom, jib and crane configuration to meet lift requirements and determine the net lifting capacity of this configuration
- Determining the number of parts of the line required
- Thoroughly understanding the information in the operating manual and understanding the device's limitations

6.8.11 INSPECTIONS & LABELLING LIFTING DEVICES

Goose Mechanical Inc. will ensure that a lifting device will be inspected prior to use and has a plate or weatherproof label permanently secured to it that legibly shows:

- the manufacturer's rated load capacity
- the manufacturer's name
- the model, serial number and year of manufacture or shipment date

If a lifting device is not commercially manufactured, an employer must ensure that it has a plate or weatherproof label permanently secured to it that legibly shows the rated load capacity according to the professional engineer's certification.

Goose Mechanical Inc. will ensure that any defects of equipment found during the inspection are repaired or removed from service prior to the equipment being utilized.

6.8.12 RIGGING INSPECTION

Goose Mechanical Inc. will ensure that rigging to be used during a work shift is inspected thoroughly prior to each period of continuous use during the shift to ensure that the rigging is functional and safe.

6.8.13 ASME STANDARDS

Wire rope, alloy steel chain, synthetic fibre rope, metal mesh slings, and synthetic fibre slings will meet the requirements of ASME Standard B30.9-2006, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings (or current version). Goose Mechanical Inc. will ensure that below-the-hook lifting devices, other than slings, meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).

6.8.14 REJECTION CRITERIA

Goose Mechanical Inc. will ensure that a sling is permanently removed from service if it is damaged or worn. An employer must ensure that a worn, damaged, or deformed hook is permanently removed from service if the wear or damage exceeds the specifications allowed by the manufacturer.

Breaking Strength and Load Parameters
Goose Mechanical Inc. will ensure all the safe working load is identified, and the lifting device will not exceed the safe working load.

Rigging will not be subjected to a load of more than:

- 10 percent of the breaking strength of the weakest part of the rigging, if a worker is being raised or lowered,
- 20 percent of the ultimate breaking strength of the weakest part of the rigging, and
- if the rigging is fatigue rated and a worker is not being raised or lowered, the maximum load must not exceed 25 percent of the ultimate breaking strength.

Goose Mechanical Inc. may use a dedicated rigging assembly designed and certified for a particular lift or project by a professional engineer, but the dedicated rigging assembly must be re-rated before it is used for another lift or project. The maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, must be legibly and conspicuously marked on the rigging. If it is not practicable to mark the rigging, the employer must ensure the maximum load rating of the rigging is available to the workers at the worksite. The maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, will be legibly and conspicuously marked on the rigging. Ways of marking the rigging will include one or more of the following:

- stamping
- etching
- embossing

- printing
- tagging

When it is not practicable to mark the rigging, the maximum load rating will be available to the lifting supervisor, operator and the workers at the worksite.

6.8.15 SIGNAL PERSON

Goose Mechanical Inc. does not permit an operator to utilize a lifting device unless there is an unobstructed view of the area for where the equipment is to be operated. If there are any obstructions, the operator must utilize a signaller to direct the lift operation.

6.8.16 UNSAFE LIFTS

The operator is responsible for being aware of conditions that may affect safety at the lift site. This will include:

- Site conditions.
- Equipment conditions.
- Any other aspect of the lift.

If the operator has any doubts as to the safety of the lift, the operator will cease operations until the condition is made safe. Planning for a lift process will include:

- The type of load and its rigging requirements.
- Whether the load might drift, fall freely, or be released unintentionally.
- Whether the lifting device might strike workers.
- Whether the lifting device might fail or fall over.

6.8.17 PASSING LOADS OVER WORK AREAS

Goose Mechanical Inc. will ensure that work is arranged if it is reasonably practicable so that a load does not pass over workers. An operator of a lifting device must not pass the load on the device over workers unless:

- No other practical alternative exists in the circumstances.
- The workers are adequately warned of the danger.

The operator of a lifting device that is travelling with a load must ensure that the load is positioned as close to the ground or grade as possible.

6.8.18 SUSPENDED LOADS

A worker will not stand or pass under a suspended load unless the worker has been adequately warned of the danger, and the operator of the lifting device knows the worker is under the suspended load.

Note: The operator of the lifting device that is travelling with a load will ensure that the load is positioned as close to the ground or grade as possible. This will be done for unloading purposes as well.

6.8.18.1 CRITICAL LIFT PLAN

Critical Lift Plan Checklist

Item to be lifted: _____ Combined load & rigging weight: _____

Location of lift: _____ Date: _____

Basis for Critical Designator		Lift Area Details	
Load exceeds 75% of load chart:	☐ Yes ☐ No	Route walked & hazards identified:	☐ Yes ☐ No
Load endangers existing facilities:	☐ Yes ☐ No	Plot plan of lift area & equipment attached:	☐ Yes ☐ No
2 booms required:	☐ Yes ☐ No	Engineered lift details attached:	☐ Yes ☐ No
Special rigging required:	☐ Yes ☐ No	The maximum lifting radius:	
Engineered lift (90% of load chart):	☐ Yes ☐ No	Crane lifting capacity at that radius:	☐ Yes ☐ No
Within 7 metres of overhead Power line:	☐ Yes ☐ No	Capacity of rigging components:	
Equipment Description		Elevation drawing w/ clearances & facilities:	☐ Yes ☐ No
Make / Year:		**Lift Crew Rigging**	
Capacity:		Certified lift equipment operator:	
Date of Certification:		Qualified Riggers:	
Has this equipment been inspected	☐ Yes ☐ No	Can operator see signal person at all times:	☐ Yes ☐ No
Description of Load		Radio signals required:	☐ Yes ☐ No
Length / Width:		**Rigging**	
Height / Weight:		Weight of all rigging required:	
Confirmed:	☐ Yes ☐ No	Cable checked:	☐ Yes ☐ No
Lifting lugs attached:	☐ Yes ☐ No	Wire rope lay checked:	☐ Yes ☐ No
Lift points marked by vendor:	☐ Yes ☐ No	Two blocked checked:	☐ Yes ☐ No
Test lift performed:	☐ Yes ☐ No	Reeving of boom tip sleeve to hook block sleeve checked:	☐ Yes ☐ No
Engineered lift (90% of load chart):	☐ Yes ☐ No	Hook capacity & condition:	
Lifting Lug Q/C, hole, thickness:		Shackles, crosbys, slings, angles checked:	☐ Yes ☐ No
Hydro test water removed:	☐ Yes ☐ No	Rigging details:	
Conditions			
Matting ground preparation required:			
Highest wind for lift:			
Lowest temperature for lift:			

Comments: _____

Supervisors Name: _____ Signature: _____ Date: _____

6.8.18.2 OVERHEAD CRANE INSPECTION

Overhead Crane Inspection

Crane Serial # _____ Date: _____

Inspector: _____

Item	Checked	Comments
LUBRICATION		
Quantity of Gear Oil	☐	
Gear Box Oil	☐	
Trolley	☐	
ELECTRICAL SYSTEM		
Emergency Stop	☐	
Switch Condition	☐	
Wiring	☐	
CRANE SYSTEM		
Trolley travels properly	☐	
Chain Container	☐	
End stops	☐	
Housings	☐	
Traversing Unit	☐	
Noise	☐	
LIFTING SYSTEM		
Friction Clutch	☐	
Name Plate	☐	
Loose wiring, screws	☐	
Hook wear	☐	
Rotation of Idle Sheave	☐	
Chain Abrasion	☐	
Chain Spring (condition)	☐	
Upper limit switch	☐	
	☐	

Deficiency	Corrective Action	Person Responsible	Target Date	Completion Date

Signature of Inspector: _____ Date: _____

6.9 DEMOLITION

AB OHS CODE PART 30

6.9.1 PURPOSE

As part of the ongoing commitment to providing a safe work environment, the following procedure has been established to prevent incidents associated with restoration, renovation and demolition

6.9.2 SCOPE

Demolition work involves many of the hazards associated with construction. However, demolition incurs additional hazards due to unknown factors such as deviations from the structure's design introduced during construction, approved or unapproved modifications that altered the original design, materials hidden within structural members, and unknown strengths or weaknesses of construction materials. To counter these unknowns, all personnel involved in a demolition project must be fully aware of these types of hazards and the safety precautions to take to control the hazards. Goose Mechanical Inc. will ensure that only competent, trained personnel will be in charge of all demolition activities.

6.9.3 HAZARDOUS SUBSTANCES

A structure that is being demolished may have at one time been used to store, manufacture or process a harmful substance. Harmful substances may also be present in the building structure. A harmful substance is defined as a substance that, because of its properties, application, or presence, creates or could create a danger, including a chemical or biological hazard, to the health and safety of workers exposed to it. Goose Mechanical Inc. will ensure that all chemical and biological substances that could pose a hazard to workers during demolition are removed from the structure (or part of the structure being demolished) prior to demolition. This applies to a wide range of substances, including the following:

- **Chemical**
- **Biological**

The above list provides some examples of harmful substances that may be encountered but is not a comprehensive list. We will identify harmful substances that may be present at the worksite. For all demolition projects, a written hazard assessment is required prior to work beginning. If substances are identified that may pose a hazard to workers during the demolition, these substances will be removed before work begins. We will consider both direct hazards (e.g., contact with lead paint) and indirect hazards (e.g., exposure to dust containing lead paint). Alternatively, we will develop work procedures that reduce or remove the potential hazard (e.g., dust control measures, use of enclosures around demolition areas, etc.).

Goose Mechanical Inc. will ensure that all asbestos-containing materials be removed prior to demolition. Asbestos-containing materials are considered to be materials that contain 1 percent or more asbestos by weight (i.e., in the individual material, not aggregate waste). However, regardless of the asbestos content, if asbestos fibres may be released in amounts that reach or exceed the occupational exposure limit for asbestos, then the work site is considered a "restricted area."

Any concrete that is to be included in the demolition will be assessed to determine if there are any facilities embedded in the concrete. As an example, there may be conduits carrying electrical lines, water/sewage lines, product lines, etc. Goose Mechanical Inc. will ensure that workers are aware of the presence of such lines, their locations, and whether or not they are carrying anything that might be harmful or injurious to workers. Concrete-embedded facilities will be identified, located and marked.

6.9.4 USE OF EXPLOSIVES

The use of explosives at the demolition site presents additional hazards. We will ensure that a competent person develops a demolition procedure for the use of explosives.

6.9.5 DISCONNECTING SERVICES

All electric, gas, water, steam, sewer, and other services lines will be disconnected (i.e., shut off, capped, or otherwise controlled) at or outside the structure before demolition begins. In each case, any utility company which is involved will be notified in advance, and its approval or services, if necessary, will be obtained.

Written confirmation of the disconnection is required. This written confirmation will be readily available at the worksite to workers and an officer. If it is necessary to maintain any power, water, or other utilities during demolition, such lines will be temporarily relocated as necessary and/or protected. The location of all overhead power sources should also be determined, as they can be especially hazardous during any machine demolition. All workers will be informed of the location of any existing or relocated utility service. Goose Mechanical Inc. will ensure that any of the following are removed from the structure before demolition begins:

- glass, metal
- hazardous substances
- any tanks, wells, piping systems, flammable/explosive materials.

6.9.6 MATERIALS CHUTE

To prevent debris from falling or flying out of a materials chute, Goose Mechanical Inc. will ensure that chutes installed at an angle steeper than 45 degrees from the horizontal will be totally enclosed. If the material is being dropped, thrown or conveyed by materials, chute workers will be prevented from entering the area into which the material falls (e.g. barricades, guardrails, etc.). Highly visible warning signs will also be posted in the immediate area to advise workers of the danger.

6.9.7 DISMANTLING BUILDINGS

All structures are loaded in some way or other, (e.g. by external loads of various kinds, the weight of the structure itself, etc.). The various parts – or in the case of framed structures, the members – transmit these loads to the foundations. In the complete structure, the forces and reactions balance one another and equilibrium is achieved. The removal of a load-carrying member may unbalance the forces in that part of the structure, upset the equilibrium, and cause the collapse. In general, it is a sound rule to demolish in the reverse order to that used for construction. However, a deliberately engineered collapse, or a mechanical process, such as the use of demolition balls, pusher arms or explosives, may sometimes be the quickest and most economical way of demolishing some structures. Such work will always be carried out under expert supervision and measures taken to prevent injury to personnel or company property. Consideration will be given to the following:

- can the proposed method lead to a sudden or uncontrollable collapse of the part in question? If so, what alternative method can be used to allow the work to be carried out under control and in safety?
- is the member helping to support any other parts of the framed structure not intended to be demolished in this particular operation? If so, what measures will be necessary to prevent a possible collapse of those other parts?
- are arrangements made for the proper use of temporary struts, braces, shores or guy ropes to control temporary instability or sudden springing of the structure?

The release of forces in structures where tensioned cables or bars have been used may produce unpredictable reactions. Information about the design and construction of the building will be obtained prior to demolition beginning. Demolition procedures will be prepared and supervised by a professional engineer. If there are workings in the buildings or structures during the demolition, the demolition is performed floor by floor from the top down. Steel structures are dismantled column length by column length and tier by tier. Goose Mechanical Inc. will ensure that unless the building is being demolished at the time, a wall or another part of the building or structure is not left unstable or endanger of collapsing unintentionally.

6.9.8 BUILDING SHAFT DEMOLITION

If the scaffold were anchored to the structure, a collapse of that portion of the structure might pull the scaffold down with it. A free-standing scaffold is required when a building shaft is being demolished from the inside.

6.9.9 HOUSEKEEPING

Goose Mechanical Inc. will not allow scrap materials and debris to mount up in the work area or around the work area if it may cause worker endangerment or additional hazards. Construction signs, barricades and warning lights are to be placed if the public may be exposed to any danger of debris or falling objects from the demolition process.

6.9.10 STABILIZING WALLS

If a dangerous or unstable wall is to be left standing, we will ensure that it is adequately braced.

6.9.11 PERSONAL PROTECTIVE EQUIPMENT

Goose Mechanical Inc. will ensure that the use of PPE is mandatory. The following may be required when on-site:

- Hard hats
- Hearing protection
- Safety glasses
- Occupation Health & Safety Regulations require that seat belts be used while operating any mobile equipment.

6.9.12 TRAINING AND SUPERVISING

Demolition work involves many of the hazards associated with construction. However, demolition incurs additional hazards due to unknown factors such as deviations from the structure's design introduced during construction, approved or unapproved modifications that altered the original design, materials hidden within structural members, and unknown strengths or weaknesses of construction materials. To counter these unknowns, all personnel involved in a demolition project must be fully aware of these types of hazards and the safety precautions to take to control the hazards. Goose Mechanical Inc. will ensure that all workers have been trained in all areas associated with demolition work. Goose

Mechanical Inc. will ensure that prior to any demolition work commencing, a competent employee will inspect the demolition site. Goose Mechanical Inc. will ensure at all times during the demolition that a competent manager is available to oversee the demolition work in progress.

6.10 DRIVING SAFETY

TRAFFIC SAFETY ACT
MOTOR VEHICLE SAFETY ACT

6.10.1 PURPOSE

The purpose of this practice is to outline procedures for safe operations and the training requirements for driving safety.

6.10.2 GENERAL SAFETY PRECAUTIONS

Whenever you drive, follow defensive driving rules:

- Ensure the vehicle is kept in good condition.
- Walk around the vehicle before driving it to check for obstacles, gas leaks, flat tires, or other defects.
- Be courteous.
- Never pass on hills and curves.
- Before backing up, walk around the vehicle. When driving, look behind you to be sure the way is clear.
- Slow down on unfamiliar or bad roads.
- Never drive when you have consumed alcohol or drugs or when you are sleepy.
- Never rely on a red traffic light to stop other vehicles. Look to make sure vehicles are stopping.
- Get the "big picture" from the sidewalk to sidewalk or fence to fence. Pay attention to what other drivers are doing, as well as road and weather conditions.
- Keep your eyes moving (develop a habit of shifting the eyes every two seconds). Know what is happening ahead, behind, and beside your vehicle (i.e., 360° around).
- Leave yourself an out and strive for a space cushion between vehicles by:
    - Maneuvering for better spacing.
    - Picking the lane with the best view.
    - Keeping space ahead (do not tailgate) and behind you and going to the ditch as a last resort.
- Make sure others see you and establish eye contact.

6.10.3 SAFETY PRECAUTIONS

- Read and follow the manufacturer's operation manual and warning labels.
- Always perform a full circle check of the vehicle prior to starting.
- Always wear a seat belt and obey the rules of the road.
- Only drive when you are alert and sober.
- Take a break when driving a long distance. Get out of the vehicle, move about, and do some light stretching.
- Wear sunglasses when driving in direct sunlight.
- Slow down and pay attention in neighbourhoods and near playgrounds.
- During the summer months, be aware of road construction.
- Be cautious when approaching intersections.
- Drive defensively. Be prepared for the unsafe actions of other motorists.
- Use your signal lights so others know what you are going to do.
- When passing a vehicle, ensure you can do it safely, signal and then pass promptly. Be prepared for splashes and spray on wet roads.

- Make your vehicle more visible by turning on your headlights.
- Plan ahead, choose familiar routes and be realistic about travel times.
- Check local weather and road conditions before you begin driving.
- Allow for extra travelling time or even consider delaying the trip if the weather is inclement.
- Tell a responsible person where you are going, your route and when you expect to arrive.
- Keep the radio volume low enough so you can hear emergency vehicles.
- Ensure the vehicle is regularly serviced and in good operating condition.
- Promptly report and document all motor vehicle incidents (regardless of the severity or amount of damage) to a supervisor.
- Do not drive if you feel drowsy or unwell.
- Do not use cruise control in poor weather conditions.
- Do not exceed the posted speed limit. On slippery roads, reduce your speed and lengthen the following distance.
- Do not make sudden lane changes.
- Do not warm up a vehicle in a garage.
- Do not multi-task while driving. Pay attention and do not engage in distracting activities.

6.10.4 SAFETY TIPS

- Always carry a valid driver's license for the type of vehicle you are operating and ensure all registration (or permit plates) and insurance cards are available for inspection.
- Keep vehicles neat and litter-free.
- Guard against mishaps by routinely checking steering gear, tires, brakes, lights, windshield wipers and the horn. Follow preventative maintenance guidelines.
- Be sure you have the proper emergency equipment required for your vehicle.
- Carry spare fuses if it is possible to change them on the road. Removal of the cause of the blown fuse is the safest.
- Do not replace fuses with stronger fuses as it can cause more component failures or fires.
- Set the parking brakes securely. Manufacturers now recommend the hand brake be set while the foot brake is still depressed.
- Use chains or winter tread tires when snow or ice causes hazardous driving conditions. However, do not rely too much on these or other skid control devices.
- Ensure defrosting equipment is kept in good working order for winter driving.
- To avoid the dangers of carbon monoxide, see that the cab is well ventilated at all times.
- If you have to stop your vehicle on the highway, day or night, use your emergency warning signals immediately. Turn on signal lights at the traffic side of your vehicle. Place red flags in the centre of your traffic lane, both 30 m (100 ft.) behind AND in front of your vehicle.
- Do not park propane-powered vehicles in underground parking lots.
- If carrying a load on the vehicle, see that it is properly distributed and anchored. If the load is high, check the clearances of all underpasses. Attach red flags in the daytime and red lights at night to any projection 1.3 m (4 ft.) or more beyond the rear tailgate.
- Secure any cargo within the vehicle. Loose items can become dangerous projectiles in the event of an incident.

6.10.5 CARE, MAINTENANCE, AND SERVICING

- Regularly inspect the lights, windshield wipers, seats, seat belts, engine fluids, tires, and other essential parts of vehicles.
- Drivers are responsible for the care, maintenance, and servicing of vehicles.
- Perform a full circle check inspection prior to each use of the vehicle.
- Follow the applicable vehicle maintenance schedule.
- Pay prompt attention to any indications of faulty operation to minimize repair costs and maintain the vehicle in a safe operating condition at all times.
- Use a licensed mechanic to help eliminate the unnecessary expense and assist in preserving the appearance and condition of the unit.
- Record usage and all vehicle maintenance.

6.10.6 VEHICLE BREAKDOWNS

In case of vehicle breakdown, follow these guidelines:

- Signal, slow down and move off the road.
- Turn on hazard warning lights.
- If you cannot move the vehicle off the road, raise the hood.
- Set out flares or warning triangles.
- Stay with the vehicle until help arrives.
- In cold weather, run the engine just often enough to keep warm and keep the vehicle ventilated.

6.10.7 REPORTING COLLISIONS

Some important points regarding collisions are listed below:

- Every driver involved in a collision must remain at the scene.
- All collisions involving injury, death or damage exceeding $2000.00 must be reported to the police. The $2000. includes combined damage to all vehicles, property, and animals.
- Never discuss who is at fault.
- Record the names and addresses of all witnesses
- Exchange insurance details with other drivers
- Record time, location, weather, and any other details
- Notify your insurance company as soon as possible.
- If you are the first person at the scene of a collision, move off the road and offer assistance.
- Notify police about the condition of any injured people and the location of the collision.

6.10.8 EMERGENCY SUPPLIES

Carry emergency supplies whenever possible. Emergency supplies can include:

- Blankets, source of heat (candle, matches), non-perishable food (candy, nuts); shovel; sand, salt, warning flares, tow rope, first aid kit, flashlight with extra batteries.

6.11 EXTENSION CORDS & TEMPORARY WIRING

6.11.1 PURPOSE

To protect workers from incidents associated with the use of extension cords and temporary wiring.

6.11.2 POTENTIAL HAZARDS

- Electrical hazard
- Shock hazard
- Fire
- Tripping

6.11.3 SAFETY CHECKS

- All portable extension cords must be rated and have an insulated grounding conductor
- Check each cord for suitability. Construction sites require extension cords that are suitable for weather conditions.
- All power cords have weather-tight ends.
- All power cords will have GFI's rated for the area classification in which they will be used.
- Extension cords are to be protected during use to prevent damage from sharp edges, movement of materials, flame cutting and other operations
- Extension cords used in hazardous areas will be equipped with approved ground fault protection
- Complete a pre-use inspection
- Immediately report any defective equipment, tag it out and remove it from service as per the Defective Tools and Equipment Safe Work Practice

Temporary electrical cords/cables shall be:

- Adequately guarded or securely suspended overhead to provide adequate clearance for workers and
- material.
- Assembled, installed and maintained in accordance with manufacturer's instructions.
- They are to be installed in accordance with applicable codes.

6.11.4 GENERAL SAFETY

- Do not use faulty equipment; immediately report suspect equipment
- Extension cords shall not be fastened with staples, hung from nails or suspended by wire
- Do not modify prongs, cords or panels

6.12 FALLING OBJECTS / DROPPED OBJECT PREVENTION

6.12.1 PURPOSE

The purpose of this practice is to outline information for falling object prevention.

6.12.2 GENERAL SAFETY PRECAUTIONS

Before any work is executed at heights, Goose Mechanical Inc. will ensure that a Falling Objects Prevention Plan will be in place to ensure that hazards are identified and controlled. This is documented on the ***Dropped Objects Prevention Plan Form***.

Control zones and the use of flagged-off areas will be viewed as a precaution only and must never be the sole means of controlling falling objects' hazards.

6.12.3 EXCEPTION

If the controls described in this section are impractical, a control zone and flagging may be used as a sole means of protection, provided all the following conditions are met:

- A detailed supervisor's Hazard Assessment is completed.
- Restricted Entry Tape shall be used to indicate Danger and Restricted Access to the work area. Under no circumstances will tape/flagged areas be entered without prior approval from the responsible worker.
- Drop zones must be assessed and control zones established based on trajectory, height, piping, structural, and other obstructions.
- The exception must be approved by the site supervisor.

All workers transporting tools, equipment, or materials at heights must ensure that controls are in place to prevent gear from falling into the work areas below.

- Small objects must be contained in a pouch or pail during transport to work areas and while at heights.
- Workers are not permitted to toss/throw material, tools, or other equipment. Such items must be passed hand to hand.
- Pry bars must have a rubber stopper or washer attached to the middle to prevent them from sliding through the grating.
- Fire blanket or plywood must be in place to prevent material or sparks from falling through the grating.
- Once work is complete, all tools, leftover material, and equipment must be removed to prevent it from falling onto other workers.

6.12.4 POWER TOOLS AT HEIGHTS

- Goose Mechanical Inc. will make every effort to restrict the use of power tools to ground level.
- Any power tools used at heights must be approved by the site supervisor and will be identified in the Dropped Objects Prevention Plan.
- Any power tools used at heights must be secured to ensure that they do not fall to lower levels and endanger workers.
- When power tools are no longer required, they must be immediately removed from the area to ensure that they do not create additional risks to workers who are building or working below.

6.12.5 STORAGE OF ITEMS

Storage of loose items on racks or shelves can be hazardous. The loose items may be dislodged during the intentional removal or from unintentional bumping against the racks or shelves. The safe maximum load of shelving or racks should be strictly adhered to at all times.

Possible causes

- Lack of space resulting in goods falling from the shelf.
- Poorly loaded material falling from the vehicle.
- Damaged pallets.
- Unsafe system of stacking.
- The incorrect type of pallet for racking system

Storage of heavier items on lower racks of shelves

For storage racks or shelves, heavier items should be placed lower down, and lighter objects can be placed on the higher levels. This will give additional stability to the rack and reduce the risk of toppling racks. Additionally, lighter objects pose a potentially lower chance of severe head injuries in the event that items stored on higher levels get displaced from the position.

Securing items for safe storage

Methods of securing goods/ items, to keep them in place during storage:

- Netting
- Restraining bars

Small, loose items can be tied together, wrapped, or kept in containers to prevent unwanted movement and falling. Provision for safe storage of irregularly shaped items should be provided. Boxes and bags can help prevent unwanted movement of rounded or spherical items. Any object that falls from its previous static position under its own weight.

6.12.6 RISK ASSESSMENT

The Risk Assessment must contain a combination of Engineering, Administrative, and PPE controls. Controls include, but are not limited to:

Engineering Controls

- Scaffold with handrail and kick plates
- Protection decks with acceptable means of containing dropped gear.
- Debris netting installed in accordance with Manufacturer's specifications or under the direction of a Professional Engineer.
- Manufactured tool lanyards.
- Manufactured retractable pockets for spud wrenches and bull pins.

Administrative Controls

- Nylon ropes in a clove hitch, suitably taped and tie wrapped to secure the tool.
- Fire blanket or plywood on the grating.

- Snow fencing.
- Rubber stoppers or washers on pry bars and other hand tools to prevent tools from falling through the grating.
- Signage indicated that there is potential for falling objects.

Personal Protective Equipment (PPE) Controls

(Must be used in conjunction with an engineering or administrative control.)

- Non - slip gloves designed to improve grip.

Dropped Objects Prevention Guide		
HAZARD	**RISK**	**CONTROLS**
Falling objects (material handling)	Serious personal injury	All small items are to be transferred in canvas buckets, toolboxes, or other suitable means to move the material. Consider potential trajectory & deflection distances. Use positive hand-to-hand transfer of material and ensure co-workers have control of the material before releasing your grip. Use hand-over-hand techniques while lowering materials with ropes. If appropriate, ribbon off and tag drop zones.
Falling objects (material storage)	Fatality / serious personal injury/equipment or property damage	Do not pile material against guardrail or toe board unless plywood barrier screens are installed. Do not over stack material. Lay plywood/fire blanket on grating if small material can slip through. Ensure that dunnage or pallets used to support materials are stable and set up so that the material will not be dislodged or fall over. Ensure that the surface that the material is stored on is level and has adequate strength to support the load. Consult a professional Engineer if unsure of structural strength to support the weight. Storage racks must be constructed with sufficient strength to withstand the loads being stored on them. Ribbon and tag off storage area as required.
Falling objects (tools)	Fatality / serious personal injury	Hand tools and portable power tools to be tied off. Use canvas buckets, toolboxes, or other suitable means to store small material. If appropriate, ribbon off & tag drop zone below. Be aware of trajectory & deflection potential. Adopt proper housekeeping practices. Pry bars must have a rubber stopper attached to the middle to prevent sliding through the grating. Two-way radios must be secured to ensure they will not accidentally fall out of pockets, or they must be kept in a radio holster.

6.12.6.1 DROPPED OBJECTS PREVENTION PLAN

Dropped Objects Prevention Plan

Date: _____ Site Location _____

Specific Work Locations Identify all areas that work tasks will be completed at varying heights	
Materials Description of Tools and/or Equipment that could potentially fall from heights during work activities	
Falling Objects Hazards Identify all existing and potential hazards and/or overhead hazards associated with the work site	
Controls to be Used Identify the systems to be used at the site to protect from falling objects (ie. netting, control zones, tool lanyards, etc.)	
Procedures Identify procedures to assemble, inspect, use, maintain and dismantle the above noted	
Comments	

This Falling Objects Prevention Plan was developed by:

Name: _____ Position: _____

Name: _____ Position: _____

Name: _____ Position: _____

Name: _____ Position: _____

Management Review _____ Date: _____

6.13 FIRE & EXPLOSION

AB OHS CODE PART 7, SECTION 118

6.13.1 PURPOSE

The purpose of this practice is to outline information for fire and explosion safety.

6.13.2 GENERAL SAFETY PRECAUTIONS

Fires and explosions are common hazards at a variety of workplaces. These hazards are present in work areas where flammable materials are handled, processed, stored, or in any way present. Flashfire has the potential to develop an explosive atmosphere capable of injuring or killing workers and causing extensive property damage.
Industrial flash fires and explosions result from the accidental release and ignition of flammable fuels. The size and duration of the flame that results from this ignition are determined by the amount of fuel available, the efficiency of combustion, and the environmental and physical characteristics of the site of the flash fire or explosion. A worker can be far enough away from the fuel source that they are unable to smell the fuel yet still be engulfed by the flame and suffer burns. If the flash fire or explosion is sufficiently intense, the heat produced may cause regular clothing to melt or begin burning. This damage occurs with a burst of flame that rarely lasts more than 6 seconds.

6.13.3 HANDLING AND STORAGE

Goose Mechanical Inc. will ensure that flammable substances are stored or used in the work area:

- will not be in a sufficient quantity to produce an explosive atmosphere if inadvertently released,
- are not stored within 30 meters of an underground shaft,
- are not stored in the immediate vicinity of the air intake of:
    - a ventilation supply system,
    - an internal combustion engine, or
    - the firebox of a fired heater or furnace, and
- are stored only in containers approved to
    - CSA Standard B376-M1980 (R2008), Portable Containers for Gasoline and Other Petroleum Fuels (or current version).

6.13.4 STORAGE AND HANDLING OF COMPRESSED AND LIQUEFIED GAS

Goose Mechanical Inc. will ensure that:

- compressed or liquefied gas containers are used, handled, stored, and transported in accordance with the manufacturer's specifications,
- a cylinder of compressed flammable gas is not stored in the same room as a cylinder of compressed oxygen, unless the storage arrangements are in accordance with provincial Fire Code (1997), (c) compressed or liquefied gas cylinders, piping, and fittings are protected from damage during handling, filling transportation, and storage,
- compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and
- oxygen cylinders or valves, regulators, or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease.

6.13.5 INTERNAL COMBUSTION ENGINES

An internal combustion engine in a hazardous location will have a combustion air intake and exhaust discharge that is:

- equipped with a flame arresting device, or
- located outside the hazardous location.

All surfaces of an internal combustion engine that are exposed to the atmosphere in a hazardous location will be:

- at a temperature lower than the temperature that would ignite a flammable substance present in the hazardous location, or
- shielded or blanketed in such a way as to prevent any flammable substance present in the hazardous location from contacting the surface.

6.13.6 WORKER CONTAMINATION

If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must:

- avoid any activity where a spark or open flame may be created or exists,
- remove the clothing at the earliest possible time, and
- ensure that the clothing is decontaminated before it is used again. If a worker's skin is contaminated with a flammable or combustible liquid, the worker must wash the skin at the earliest possible time.

6.13.7 AVOIDANCE OF EXPLOSIVE AREAS

A person must not enter or work at a work area if more than 20 percent of the lower explosive limit of a flammable or explosive substance is present in the atmosphere. Atmospheric testing results should be assessed before a worker is exposed.

6.14 FIRE EXTINGUISHERS & FIRE PROTECTION

AB OHS CODE PART 7, SECTION 118

6.14.1 PURPOSE

To ensure all employees are knowledgeable on which fire extinguisher to use and how to use them. All vehicles and office locations must contain a Type ABC Fire Extinguisher. It is important that each employee is checking their fire extinguisher periodically and is aware of what to check for.

Fire protection is a critical part of safe operations. Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time. Therefore, it is important to know which fire extinguisher to use and how to use it. Always keep fire extinguishers visible and easy to access. Fire extinguishers have to be properly maintained to work well. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher

6.14.2 HAZARDS

- Smoke and Toxic Fume Inhalation
- Pressure release
- Burns
- The collapse of structure/equipment
- Heat
- Empty Fire Extinguishers

6.14.3 GUIDELINES

- All fire extinguishers must have a properly attached tag with the correct date checked off, indicating they have been recertified within the last year.
- The arrow in the dial needs to be pointing within the green area.
- Ensure the pin is present and properly inserted in the handle to prevent accidental discharge.
- Always keep fire extinguishers visible and easy to access.
- Ensure any assistants working with you are aware of the location of your fire extinguisher.

6.14.4 THE PASS SYSTEM

Can be a helpful reminder of the correct steps to follow when attempting to extinguish a fire:

- Pull the pin.
- Aim low; point at the base of the fire.
- Squeeze the handle.
- Sweep from side to side, keeping the extinguisher aimed at the base of the fire.

6.14.5 TYPES OF FIRES

Class A: These fires consist of wood, paper, rags, rubbish and other common combustible material.
Recommended Extinguisher:

- water from a hose, pump-type water can, pressurized extinguisher, or soda acid extinguishers. To fight the fire, soak the fire completely, even the smoking embers.

Class B: Flammable liquid, oil and gas.

Recommended Extinguisher:

- ABC Units, dry chemical, foam and CO2 extinguishers. If fighting this fire, direct the powder stream at the base of the fire and use a sweeping motion, always keeping the fire in front of yourself.

Class C: Electrical equipment

Recommended Extinguisher:

- carbon dioxide (CO2) or Dry Chemical extinguishers. If fighting or extinguishing this fire, use short bursts. When an electrical current is shut off on a class C fire, it can become a Class A fire if the materials around the electrical fire are ignited.

Portable fire extinguishers are not designed to fight large spreading fires. Fire extinguishers are useful under certain conditions, and extreme care should be taken when attempting to extinguish any fire.

6.14.6 SAFE HANDLING, TRAINING & STORAGE FLAMMABLE SUBSTANCES

Goose Mechanical Inc. will ensure that all employees will be trained in the safe use of fire extinguishers and hazards that may occur should they need to extinguish a fire.

Goose Mechanical Inc. will ensure that flammable substances stored or used at the work area:

- will not be in a sufficient quantity to produce an explosive atmosphere if inadvertently released,
- are not stored within 30 meters of an underground shaft,
- are not stored in the immediate vicinity of the air intake of
    - a ventilation supply system,
    - an internal combustion engine, or
    - the firebox of a fired heater or furnace, and
- are stored only in containers approved to
    - CSA Standard B376-M1980 (R2008), Portable Containers for Gasoline and Other Petroleum Fuels (or current version).

6.14.7 SAFE HANDLING & STORAGE OF COMPRESSED AND LIQUEFIED GAS

Goose Mechanical Inc. will ensure that:

- compressed or liquefied gas containers are used, handled, stored, and transported in accordance with the manufacturer's specifications,
- a cylinder of compressed flammable gas is not stored in the same room as a cylinder of compressed oxygen unless the storage arrangements are in accordance with provincial Fire Code (1997),
- compressed or liquefied gas cylinders, piping, and fittings are protected from damage during handling, filling, transportation, and storage,
- compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and
- oxygen cylinders or valves, regulators, or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease.

6.15 FLAMMABLE & COMBUSTIBLE SUBSTANCES

AB OHS CODE PART 7 & 10, SECTION 118

6.15.1 PURPOSE

The purpose of this practice is to outline information for safely working with flammable and combustible substances.

6.15.2 GENERAL

This program covers Solids, liquids, and gases that are capable of catching fire or exploding in the presence of an ignition source. Flammable liquids have a flashpoint below 37.8°C; combustible liquids have a flashpoint of 37.8°C or more. Examples: white phosphorus, acetone, propane

6.15.3 BASIC SAFETY PRECAUTIONS

- Obtain and read the Safety Data Sheets (SDS's) for all of the materials you work with.
- Evaluate the permeation rate and wear appropriate gloves.
- Prevent hazards from long-term storage (peroxides).
- Be aware of all the hazards (fire, explosion, health, chemical, reactivity) of all the materials you work with.
- Know which of the materials that you work with are flammable or combustible liquids.
- Avoid or eliminate ignition sources and hot surfaces when working with flammable or combustible liquids.
- Store, handle and use flammable and combustible liquids in well-ventilated areas.
- Use approved equipment, including labelled safety containers for flammable and combustible liquids.
- Keep all containers closed when not in use.
- Bond and ground metal containers when transferring flammable and combustible liquids.
- Make sure fire extinguishers are available, access unobstructed, straps in place.
- Know how to handle emergencies (fires, spills, personal injuries) involving the flammable and combustible liquids

6.15.4 SAFE HANDLING & STORAGE

We will ensure that flammable substances stored or used in the work area:

- Will not be in sufficient quantity to produce an explosive atmosphere if inadvertently released.
- Are not stored within 30 metres of an underground shaft.
- Are not stored in the immediate vicinity of the air intake of:
    - A ventilation supply system,
    - An internal combustion engine, or
    - The firebox of a fired heater or furnace
    - Are stored only in containers approved to Current CSA standards

6.15.5 WORKER CONTAMINATION STEPS

If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must:

- Avoid any activity where a spark or open flame may be created or exists.
- Remove the clothing at the earliest possible time.

- Ensure that the clothing is decontaminated before it is used again. If a worker's skin is contaminated with a flammable or combustible liquid, the worker must wash the skin at the earliest possible time.

6.15.6 WORKERS ENTERING AREA

Persons must not enter work areas if more than 20% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere. Atmospheric testing results should be assessed before a worker is exposed.

6.16 FORKS, SPADES & HOES

6.16.1 PURPOSE

The purpose of this practice is to outline information for safe use of forks, spades and hoes.

6.16.2 GENERAL SAFETY PRECAUTIONS

Forks, spades, and hoes are the primary tools of the landscape worker. Because they are so common, it is easy to forget the hazards they present, both when in use and when left lying around the work area.

6.16.3 COMMON HAZARDS

- Tripping over tools left lying on the ground
- Blisters and subsequent infections on the hands
- Overexertion injuries to wrists, back, or shoulders from repetitive use

6.16.4 SAFETY TIPS

- Choose tools that fit your body, your hands, and your work style.
- Use good quality tools.
- Wear gloves appropriate for the task.
- Change tasks frequently or take mini breaks.
- Use a loose grip on the tools.
- Keep your wrists straight.
- Recognize the early signs of overuse injuries, including numbness, tingling, swelling, redness, and pain in the wrists, shoulders, or back. If you experience any of these symptoms, stop work or change the type of work you're doing for the day.

6.17 FUELING OPERATIONS

6.17.1 PURPOSE

The purpose of this practice is to establish the minimum standard for safe and environmentally responsible equipment and vehicle fuelling operations.

6.17.2 GENERAL SAFETY PRECAUTIONS

The following procedures shall be observed for equipment and vehicle fuelling:

- Fuelling operations shall occur at designated areas where possible.
- Fuelling operators shall be in attendance during the entire fuelling operation.
- Vehicles engines shall be turned off prior to and during fuelling.
- The fuelling operator shall identify and eliminate sources of ignition in the task area. No person shall smoke within 15' of a fuelling operation.
- Cellular telephones shall not be used during fuelling.
- Operators shall reseal all fuel storage containers and use leak-free containers
- Any waste petroleum products shall be collected and stored for later disposal.
- All fuelling equipment shall be regularly inspected and repaired immediately upon the discovery of a malfunction.
- Fuel spills shall be immediately cleaned up with spill kit materials.
- Contaminated spill kit materials shall be disposed of in an appropriate waste container.

6.17.3 FILLING A CONTAINER

- Use only a CSA approved container.
- Place containers on the ground at a safe distance from vehicles, customers, and traffic.
- Never fill a container when it's inside a vehicle, trailer, truck or pickup truck bed. The container must come in contact with the ground in order to eliminate any chance of static electricity igniting fuel vapours.
- Keep the pump nozzle in contact with the container at all times during fueling to eliminate static electricity igniting fumes.
- Fill a container/fuel tank slowly to prevent over-filling or a spill, as well as decreasing static electricity.
- Fill the container/fuel tank no more than 90 – 95% full to allow room for expansion. Overfilling may lead to a dangerous spill.
- Wipe off any minor gasoline spills on the container before securing it in the vehicle.
- Fuel spills shall be immediately cleaned up with spill kit materials. Prior to starting the vehicle/equipment, ensure there is a sufficient amount of time to pass by; allowing the vapours to evaporate will help to eliminate any chance of igniting fuel vapours.
- Store containers in a secure, well-ventilated location.

Note: If clothing and skin are contaminated with flammable or combustible liquid, the worker must:

- avoid any activity where a spark or open flame may be created or exists,
- remove the clothing and,
- ensure the clothing is decontaminated before it is used again.

6.18 GAS & ATMOSPHERE TESTING

6.18.1 PURPOSE

The purpose of this practice is to outline information for safe gas and atmospheric testing.

6.18.2 GENERAL SAFETY PRECAUTIONS

Goose Mechanical Inc. occasionally performs work in areas that are suspected or known to be oxygen-deficient or contain hazardous or combustible gases. These work areas are to be continuously monitored by a qualified and competent person to ensure a safe atmosphere in this area of work. OH&S regulations require that hot work not occur unless tests indicate the work can be performed safely and procedures have been implemented to ensure continued safe performance of the work.

6.18.3 PRECAUTIONS

- Establish routine visual checks of the monitor display in areas of high noise levels that may render the audio alarm inaudible.
- Establish a communications system with all workers involved.
- Establish a means to stop all work, shut down all equipment and evacuate in the event of an alarm.
- Establish evacuation points.
- Eliminate all ignition sources.
- Supplied air respiratory protection should be worn when testing unknown atmospheres.
- A qualified Gas Tester must sign out a monitor and be responsible for its care, use, return, and documentation of test results.
- Check calibration decal on the monitor for calibration date and next due date to ensure calibration is current.
- Check the condition of the monitor. Inspect the inlet to the head to see if they are dirty or plugged.
- Ensure the monitor has been bump tested as per the manufacturer's requirements.
- In a clean air atmosphere, turn on the monitor to check battery level and to make sure it is calibrated properly.
- Proceed to the area to be tested. Approach from downwind (wind at your front). Look for windsocks or direction of travel of steam emissions to assist in determining wind direction. Also, look for other indications such as flashing warning lights on buildings, which may be due to a gas leak, H_2S LEL. If the lights are flashing, consult with the Foreman or person in charge. Do not enter the area until safe to do so.
- Holding the monitor in front of you, slowly proceed into the area and continually move the monitor. The monitor will be checking for H_2S LEL and O2 above your head, at your waist and at ground level. Check low-lying areas, as H_2S is normally heavier than air (when mixed with hot products, H_2S may be found in high areas until it cools and settles).

Check thoroughly for any leaks of combustibles or toxic gas from:

- All threaded things
- Flanges
- Moving stems and packing of all valves
- Instrument and solenoid vents
- Sample and vent points as well as vent pipes & relief devices
- Floor drains and low points such as pits or trenches

- Open pipes and equipment
- Concealed spaces (i.e. skid base) and waste containers
- Any pool of water

If any hazards are detected, notify operations and your manager, as your presence may be required to monitor until the situation has been corrected continuously.

Remember, as a Gas Tester, your job is to test, assess, and report. If you are unsure of your surroundings for your initial gas test, a breathing apparatus should be worn.

6.18.4 COMPETENCY FOR GAS TESTERS

- A general overview of how an electronic gas detector works
    - Include types of sensors and the basics of how they work (i.e., LEL, O2, toxic sensors)
    - What can "poison" a sensor, give false readings
    - Motorized vs. hand aspirated sampling pump
- Purpose and importance of calibration
    - They will just need to check the calibration date
    - What was the combustible gas sensor calibrated to?
- Pre-use inspection
    - Check to make sure sensor heads are clean
    - Turn on and check battery level and "zero" readings
- Use and limitations for gas monitors, i.e., area vs. leak detection
- Review Safe Work Practices
- Give them a written quiz
- Have them perform a hands-on demonstration of competency of the information covered.

6.19 GAS HAZARDS

6.19.1 PURPOSE

The purpose of this practice is to outline information for safe work around gas hazards.

6.19.2 GENERAL SAFETY PRECAUTIONS

Solids, liquids and gasses capable of catching fire or exploding in the presence of the ignition source are considered flammable and combustible substances. Flammable liquids have a flashpoint below 37.8°C; combustible liquids have a flashpoint of 37.8°C or more.

- Obtain and read the Safety Data Sheets (SDS's) for all of the materials you work with
- Evaluate the permeation rate and wear appropriate gloves
- Prevent hazard from long term storage (peroxides)
- Be aware of all the hazards (fire, explosion, health, chemical, reactivity) of all the materials you work with
- Know which materials that you work with are flammable or combustible liquids
- Any source of ignition (can include sparks, smoking, flames, etc.) and hot surfaces are prohibited from areas where flammable or combustible liquids are stored
- Store, handle and use flammable and combustible liquids in well-ventilated areas
- Use approved equipment, including labelled safety containers for flammable and combustible liquids
- Keep all containers closed when not in use
- Bonding and grounding metal containers must be utilized when transferring flammable and combustible liquids from a conductive container to another to prevent static electricity
- Make sure fire extinguishers are available, access unobstructed, straps in place
- Know how to handle emergencies (fires, spills, personal injuries) involving the flammable and combustible liquids you work with

6.19.3 TRAINING

Goose Mechanical Inc. will ensure that all workers that may be exposed to, handle or work around any flammable and/or combustible substances are trained in safe handling practices. All workers are provided training on the hazardous gases they may be exposed to on the job. All workers will be provided with appropriate information regarding the identity of the substance, the nature of the substance and all potential hazards of the substance that they may be handling or exposed to. Gas Hazards training will be documented.

Specific training that relates to flammable and combustible substances will include but is not limited to:

- Safe handling
- Usage
- Storage
- Proper disposal of substances
- Gas characteristics, health effects and personal protective equipment.

6.19.4 SAFE HANDLING & STORAGE

Goose Mechanical Inc. will ensure that flammable and combustible substances stored or used in the work area:

- will not be the insufficient quantity to produce an explosive atmosphere if inadvertently released
- are stored in a fire-resistant cabinet or designated storage room/building
- are stored in an area that has adequate ventilation
- are stored separately from substances they may cause a reaction with, (i.e. the air intake of:
    - a ventilation supply system
    - an internal combustion engine
    - the firebox of a fired heater or furnace)
- are stored only in containers approved to:
    - CSA Standard B376-M1980 (R2008), Portable Containers for Gasoline and Other Petroleum Fuels (or current version)

6.19.5 IGNITION SOURCES

Goose Mechanical Inc. will ensure that:

- suitable procedures are developed and implemented to prevent the ignition of flammable liquids or explosive dust that are present at a worksite
- all sources or potential sources of ignition are eliminated or controlled where an explosive atmosphere exists or is likely to exist
- static charge accumulations during the transfer of flammable liquids or explosive substances from one container to another are prevented by electrically bonding the containers
- Workers are trained on procedures to be followed in the event of an uncontrolled release. Procedures developed to prevent the ignition of flammable material have been noted.

6.19.6 WORKER CONTAMINATION STEPS

If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must:

- avoid any activity where a spark or open flame may be created or exists
- remove the clothing at the earliest possible time
- ensure that the clothing is decontaminated before it is used again. If a worker's skin is contaminated with a flammable or combustible liquid, the worker must wash the skin at the earliest possible time

6.19.7 FIRST AID

First aid services, equipment, and supplies must be quickly and easily accessible during all working hours. First aid equipment and supplies must be ready for use and protected from the elements so that their usefulness is not affected by exposure to heat, cold, wind and moisture. The equipment and supplies, or more often the containers in which they are stored, must be clearly marked to indicate that they are intended for first aid.

Goose Mechanical Inc. will ensure that a fire extinguisher is available to all workers who can extinguish a Class ABC fire.

- Firefighting equipment must NOT be blocked by any materials, equipment, or vehicles and must be accessible at all times

- All fire extinguishers and other firefighting equipment shall be inspected on a monthly basis to ensure it is in its place, accessible, and fully functional
- Discharged fire extinguishers must be replaced with fully charged units. Spent extinguishers must be recharged. These requirements shall receive immediate attention

Operation of Fire Extinguisher

The following procedure shall be implemented for the operation of fire extinguishers:

1. Break the seal and remove the hose from its storage position.
2. Remove the pin and depress the cartridge lever to activate the extinguisher.
3. Give the nozzle a quick squeeze to verify the extinguisher is charged.
4. Approach the fire with the wind at your back.
5. Start the flow of the chemical when about three (3) meters from the fire.
6. Direct the stream toward the near edge or base of the fire.
7. Apply the chemical with a back and forth horizontal motion, always aiming at the base of the fire.
8. Use the full stream - DO NOT THROTTLE THE FLOW OF THE CHEMICAL.
9. DO NOT aim directly into open-top containers containing burning liquids.
10. DO NOT turn your back on fire; even though it appears extinguished, the ignition may reoccur.

Portable fire extinguishers are not designed to fight large spreading fires. Fire extinguishers are useful under certain conditions, and extreme care should be taken when attempting to extinguish any fire.

Gas Monitors shall be calibrated per the manufacturer's recommendations and have a current calibration sticker on the monitor. Daily bump tests are performed on all gas monitors that are to be used to ensure the monitor and alarms are working correctly.

6.19.8 WORKERS ENTERING AREA

Persons must not enter work areas if more than 10% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere. Atmospheric testing results should be assessed before a worker is exposed. Personal portable gas detectors shall be used in high gas hazard areas.

6.19.9 WASTE

Any waste material that is considered a flammable or combustible substance will be placed in a covered metal container prior to the proper disposal and stored in a separate area as not to affect work areas or potentially interfere with other potential flammable or combustible substances.

6.20 GENERAL SAFETY PRECAUTIONS

AB OHS CODE PART 20

6.20.1 PURPOSE

The purpose of this practice is to outline information for general safety precautions.

6.20.2 HOUSEKEEPING

Slipping and tripping are common workplace hazards. Employers are responsible for making sure that the work site, and in particular entry and exit routes at a worksite, are free of waste, materials and equipment. Obstructed entry and exit routes can pose a serious hazard to workers having to leave a work site quickly as might be required during an emergency. Obstructions may reduce visibility at a worksite and may also present a tripping hazard.

6.20.3 VEHICLE TRAFFIC CONTROL- TRAFFIC HAZARDS

This section addresses the importance of protecting workers from traffic hazards. As examples, it applies to:

1. workers at a construction site assisting with the positioning, loading or unloading of dump trucks
2. workers grading lumber at a sawmill yard where forklifts or front end loaders are used to move logs or lumber
3. workers collecting shopping carts in a parking lot
4. a police officer speaking with a motorist at a roadside location that is not protected from moving traffic by barricades or other effective traffic control; and
5. workers at a road construction project where work takes place within an area protected from "public" traffic by barricades.

When determining the presence and degree of danger from traffic to workers, Goose Mechanical Inc. will consider the speed of the moving vehicles and the duties and work location of workers relative to vehicles and powered mobile equipment.

6.20.4 HIGH VISIBILITY APPAREL

The risk of injury from traffic hazards should first be controlled or eliminated through the use of engineering or administrative controls. Highly visible apparel should be considered to be the second line of defence against such hazards. Environmental conditions such as lighting, rain, fog, snow, smoke and dust can significantly affect the visibility of apparel.

Workers on foot and exposed to the hazards of moving vehicles are required to wear highly visible apparel that is clearly distinguishable. Depending upon conditions at the worksite, highly visible apparel may be fluorescent, retroreflective, or a combination of both. A fluorescent material is one that absorbs ultraviolet light in daylight conditions and then emits it as visible light. This property allows the material to radiate more visible light than actually falls on it, making it appear brighter than a non-fluorescent material under the same conditions.

Retroreflective material is one that reflects light back in the direction of the source of the light. Retroreflective materials are preferred over bright colours under dark conditions. The OHS Code does not require fluorescent or retroreflective materials used on apparel to be a particular colour or size. Apparel is considered to be clearly distinguishable if it is of a colour that contrasts with the surroundings in which it is worn. The greater the contrast

between the background and workers' apparel, the more distinguishable the workers. Brighter colours are more distinguishable than duller colours under daylight conditions, while bright colours are less effective than fluorescent colours under low light conditions. Visibility enhancing trim often has both fluorescent and retroreflective properties. Stripes on the arms and legs of apparel can indicate the motion and nature of the object they cover. Such apparel can be more easily distinguished than apparel without stripes. For optimal performance, apparel should be kept clean and worn as intended – done up properly around the body with no loose or dangling parts and worn in a way that ensures that no other clothing or equipment obscures the high visibility materials.

6.20.5 QUALIFIED & TRAINED

If work is to be done that may endanger a worker; Goose Mechanical Inc. will strive to ensure that the work is done:

- by a worker who is qualified, trained and competent to do the work, or
- by a worker who is working under the direct supervision of a worker who is competent to do the work.

Goose Mechanical Inc. will ensure that a worker is trained in the safe operation of the equipment the worker is required to operate.

6.20.6 COMPETENT WORKER

"Competent" in relation to a person means adequately qualified, suitably trained, and with sufficient experience to perform work safely without supervision or with only a minimal degree of supervision. Work that may endanger a worker must be completed by a worker who is competent to do the work or by a worker who is working under the direct supervision of a worker who is competent to do the work. All workers must be trained in procedures until they are competent.

6.20.7 EQUIPMENT

Goose Mechanical Inc. will ensure all equipment is maintained, safe to perform adequate strength for its purpose and free from obvious defects. Damaged and faulty equipment will be reported in the preventative maintenance form.

6.20.8 TIRE SERVICING

This section is intended to prevent worker injury caused by the explosion or violent separation of parts of multi-component wheel assemblies. Blowoffs, the sudden, violent springing of tire lock rings, rims or flanges from tires being assembled, is the main hazard. Blowoffs usually happen when tires have just been mounted on their rims and are being inflated. The cause is generally incorrect positioning of tire fastenings but may also include out-of-true rims and defective component parts. Blowouts involving the sudden rupture of a tire or tube may be due to overinflation.

Goose Mechanical Inc. will make sure that the tire manufacturer's inspection and servicing requirements are followed. Truck tire servicing manuals and videos are available from most manufacturers. The manuals must be kept on hand and readily available so that all workers can access the service manuals. Only competent workers are permitted to service, inspect, disassemble and reassemble tire and wheel assemblies. If a worker is not competent to perform this work, the worker must be under the direct supervision of a worker who is competent. All of this work must be performed according to the manufacturer's specifications or instructions. Workers performing this work must be trained and understand how to properly inspect and safely service tire and wheel assemblies.

6.21 GENERATORS

6.21.1 PURPOSE

The purpose of this practice is to outline information for safe operations of generators.

6.21.2 GENERAL SAFETY PRECAUTIONS

Portable generators are useful when temporary or remote electric power is needed, but they also can be hazardous. The primary hazards to avoid when using a generator are carbon monoxide (CO) poisoning from the toxic engine exhaust, electric shock or electrocution, fire and burns.

Every year, people die in incidents related to portable generator use. Most of the incidents associated with portable generators reported to CPSC involve CO poisoning from generators used indoors or in partially enclosed spaces.
Carbon Monoxide Hazards

When used in a confined space, generators can produce high levels of CO within minutes. When you use a portable generator, remember that you cannot see or smell CO. Even if you do not smell exhaust fumes, you may still be exposed to CO. If you start to feel sick, dizzy, or weak while using a generator, get to fresh air **RIGHT AWAY. DO NOT DELAY**. The CO from generators can rapidly kill you.

Follow these safety tips to protect against CO poisoning.

- **NEVER** use a generator inside homes, garages, crawlspaces, sheds, or similar areas
- Follow the instructions that come with your generator.
- Install battery-operated CO alarms or plug-in CO alarms with battery back-up in your home,

To avoid CO poisoning when using generators:

- Never run generators indoors, including garages, basements, crawlspaces and sheds.
- Get to fresh air right away if you start to feel dizzy or weak.

6.21.3 ELECTRICAL HAZARDS

- Generators pose a risk of shock and electrocution, primarily if they are operated in wet conditions. If you must use a generator when it is wet outside, protect the generator from moisture to help avoid the shock/electrocution hazard, but do so without operating the generator indoors or near openings to any building that can be occupied in order to help avoid the CO hazard.
- Connect appliances to the generator using heavy-duty extension cords that are specifically designed for outdoor use. Make sure the wattage rating for each cord exceeds the total wattage of all appliances connected to it. Use extension cords that are long enough to allow the generator to be placed outdoors and far away from windows, doors, and vents to the home or to other structures that could be occupied
- **NEVER** try to power the wiring by plugging the generator into a wall outlet, a practice known as "backfeeding." This is extremely dangerous and presents an electrocution risk to utility workers and neighbours served by the same utility transformer. It also bypasses some of the built-in circuit protection devices.

6.21.4 FIRE HAZARDS

- Gasoline, propane, kerosene, and other flammable liquids should be stored outside of living and working areas in properly labelled, non-glass safety containers. Do not store them near a fuel-burning appliance, such as a natural gas water heaters.
- Before refuelling the generator, turn it off and let it cool down. Gasoline spilled on hot engine parts could ignite.

6.22 GRINDERS

AB OHS CODE PART 25

6.22.1 PURPOSE

The purpose of this practice is to outline information for safe operations while using grinders.

6.22.2 PORTABLE GRINDER

Abrasive wheels can cause severe injury. Proper storage of new wheels, proper use of wheels and proper maintenance of wheels must be observed.

- Familiarize yourself with the grinder operation before commencing work.
- Ensure proper guards are in place and that; safety glasses, face shields, gloves and safety boots are worn when using portable grinders.
- Never exceed the maximum wheel speed (every wheel is marked). Check the speed marked on the wheel and compare it to the speed on the grinder.
- When mounting the wheels, check them for cracks and defects, ensure that the mounting flanges are clean, and the mounting blotters are used. Do not overtighten the mounting nut.
- Before grinding, run newly mounted wheels at operating speed to check for vibrations.
- Never use the grinder for jobs for which it is not designed, such as cutting with a grinding wheel vs. cutting disc.

6.22.3 HAZARDS

- Fire or explosion
- Flying debris
- Moving parts
- Electrical cords
- Wheel defects

6.22.4 PRECAUTIONS

- Inspect the grinder or buffer for any visible defects.
- Observe proper storage, installation and use of grinding discs.
- Only grinders/buffers with grounded electrical cords are to be used.
- Grinder guards are to be used at all times and must not be altered.
- Replace damaged, defective guards.
- Check grinding discs to ensure that the rating is equal to or greater than the operating RPM listed on the grinder and that the disc is free of visible defects.
- Ensure that the grinding disc is designed for the job to be done.
- Appropriate eye protection (for example, mono-goggles), face and hearing protection must be used at all times.
- Loose clothing must not be worn during grinding and buffing operations.
- Do not use grinders near flammable materials. A fully charged fire extinguisher must be located nearby.
- Ensure that the mounting flanges are clean and the mounting blotters are used.
- Before grinding, run the newly mounted grinding disk at operating speed to check for vibrations.

- Ensure that the grinder will not operate when the trigger (constant pressure) switch released.
- Clean and service grinders according to the manufacturer's recommendations.
- Ensure that all energized power tools are unplugged.

6.22.5 BENCH GRINDER

Bench grinders include any grinder permanently affixed to a workstation. Severe injury may occur if protective equipment is not used and properly maintained.

6.22.6 HAZARDS

- Damage to the face and eyes or to others as a result of a disk failure or other flying material from the product being worked on.
- Noise levels from equipment and process may cause hearing damage if over 85 decibels.
- Pinch points to hands and fingers.
- Improper spacing of the rest from the wheel.
- Manufactured guards, not in place or damaged.
- Using the side of the wheel of grinding.
- Sparks created could ignite flammable materials.
- Wire wheel particles can be missiles if the wheel is not in good shape.
- Ergonomics regarding height and repetitive motion.

6.22.7 PRECAUTIONS

- An approved face shield and safety glasses are required at all times when grinding.
- Hearing protectors must be worn as per OH&S Legislation.
- Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8" or 3mm. Replace the grindstone when adjustment of the rest cannot provide 1/8" or 3mm clearance.
- If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surfacing tool.
- Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed does not exceed the manufacturer's recommendation.
- The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel and must fit the shaft rotating speed according to the manufacturer's recommendations.
- Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
- Ensure you check the integrity of the disk for cracks or other damage.
- Do not stand directly in front of the grinding wheel when it is first started.
- Ensure the wire wheel is in good shape.
- Ensure that all energized power tools are unplugged.

6.22.8 ANGLE AND PEDESTAL GRINDERS

Workers are to read and understand the instruction manual before operating a grinder. Ensure that you have been properly trained on how to operate this equipment from the instructor or a Goose Mechanical Inc. manager prior to use.

6.22.9 WORKER RESPONSIBILITY

- Remove ties, rings, watch and other jewelry. Long hair should be tied back, and loose sleeves should not be worn. Do not wear gloves when operating a buffing, grinding, or polishing wheel.
- Make sure the wheel guards are in place and properly adjusted and tightened.
- Don't adjust a grinder when it's running.
- Blotter and wheel flanges used to mount the grinding wheels on the shaft of the grinder must be in place.
- Tool rests must be adjusted and tightened to ensure that there is less than a 1/8 inch gap from the wheel.
- Wheels should be inspected prior to turning on the power. Wheels with cracks or chips or badly rutted should not be used. They may require dressing or permanent removal from service.
- Do not grind on the side of the abrasive wheel.
- Check that the speed rating of the grinding wheel is equal to or exceeds the speed rating of the grinder. The maximum approved speed stamped on the wheel blotter should be checked against the arbour speed of the machine to ensure that the safe peripheral speed is not exceeded.

6.22.10 OPERATION

- Stand to one side of the wheel when turning on the power.
- Before commencing grinding, allow the grinding wheel to run at operating speed for at least one minute.
- When commencing a grinding operation, bring the object into contact with the grinding wheel slowly and smoothly, avoiding impact or bumping motions.
- Move the object being ground, back and forth across the wheel, as this prevents ruts and grooves from forming.
- Dress the wheel on the face only. Dressing the sides may cause it to become too thin for safe use.
- Use the face of the wheel for safe grinding. Do not press too hard.
- Vibrating wheels should not be used. They must be dressed or replaced, or the bearings of the shaft replaced if they are worn.
- Do not touch the ground portion of the workpiece until you are sure it is cool.
- Shut off the power and do not leave until the machine has stopped fully.
- Clean the work area when finished.
- Disconnect angle grinders from the power source when making repairs or changing discs.
- Turn off the power switch to pedestal grinders and lockout the electrical switch before doing any repairs.

6.22.11 WHEEL DRESSING PROCEDURE

- Wear a face shield over your safety glasses for protection against heavy particles.
- Use a dressing tool approved for the job.
- Inspect star dressers for loose shaft and worn discs.
- Round off the wheel edges with a hand stone before and after dressing to prevent the edges from chipping.
- Use the work rest to support and guide the tool.
- Use the tool holder if one is available.
- Apply moderate pressure slowly and evenly.
- Always apply diamond dressers at the center or slightly below the center, never above.

6.23 HAND AUGER OPERATION

6.23.1 PURPOSE

The purpose of this practice is to outline information for safe hand auger operations.

6.23.2 GENERAL SAFETY PRECAUTIONS

A hand auger is a versatile tool used to carry out a range of shallow digging necessary in obtaining soil samples, making postholes, drilling fishing holes in the ice, environmental construction, mining, and locating underground materials that may potentially halt drilling and damage powered tools. Hand auguring allows the careful drilling required in environmental construction, demolition and geological surveys.

6.23.3 SAFE USE

- There is a risk of sharp chunks of buried materials loosening and harming the person operating the hand auger.
- Use proper PPE and safety glasses to prevent eye injury in case a piece of sharp material loosens abruptly.
- Use a hard hat, gloves, safety boots, dust mask and other protective gear
- Remove excavated soil only after stopping the hand auger.
- Before drilling, find out if there are any underground power lines, cables or telephone lines running through the area.
- Be sure about the layout of underground water pipes, sewer lines and other utilities.
- Use a hand auger efficient enough to execute the required objective at the earliest time.
- Hand injuries occurring from using standard augers can be reduced by opting for augers with ergonomic handles.
- Employ hand movements that exert minimum pressure on wrist bones.
- Different types of hand augers catering to varying needs are available. Use the auger that is most appropriate for the job to be done
- Take precautions to prevent the hand auger from getting entangled in any type of underground cover that may be used for environmental, engineering or alternative purposes.
- Ensure that workers are properly trained on the use of a hand auger
- Never operate when working alone

6.24 HAND TOOLS

AB OHS CODE PART 25

6.24.1 PURPOSE

The purpose of this practice is to outline information for safe use of hand tools.

6.24.2 GENERAL SAFETY PRECAUTIONS

Our finest tools are our hands. Too often they are damaged by tool accidents. Hands can be caught in machines, crushed by objects, or cut by sharp-edged tools such as chisels, knives, and saws. Hands can also be damaged by being burned, fractured, or sprained unless you stay alert.

Eyes are highly susceptible to injury from tool use but eye injuries are almost always preventable. Use the guards and personal protective equipment which we all know are needed but sometimes tend to overlook.

Noise is a hazard inherent in construction. Tools and the working environment can both be noisy, particularly for construction trades operating in plants and mills. Exposure to excessive noise can impair hearing. Prolonged excessive exposure can result in permanent damage to the hearing and eventually deafness. Hearing protection should be worn whenever there is a risk of excessive exposure.

6.24.3 WRENCHES

- Use the correct size wrench for the job.
- Remove caked dirt and grime from inside sockets to allow them to seat fully.
- Use a pipe wrench to turn or hold a pipe. Never use a pipe wrench to bend, raise or lift a pipe.
- Keep pipe wrench teeth clean and sharp.
- Do not use a wrench as a hammer or strike it with a hammer.
- Do not use pipe wrenches on nuts and bolts.
- Do not use an extender for extra leverage. Get a larger pipe wrench.

6.24.4 SCREWDRIVERS

- Screwdrivers shall not be used as punches, wedges, pinch bars, or pries.
- Choose contoured handles that fit the shank tightly, with a flange to keep the hand from slipping off the tool.
- Keep the screwdriver handle clean.
- The tip shall be kept clean and sharp to permit a good grip on the head of the screw.
- The part being worked on shall not be held by hand. It should be laid on a flat surface or held in a vice.
- Do not lean or push on a screw-driver with any more force than necessary to keep contact with the screw.
- Do not hammer screws that cannot be turned.
- Do not try to use screwdrivers on screw heads for which they are not designed

6.24.5 PLIERS AND NIPPERS

- Pliers are meant for gripping and cutting operations. They shall not be used as a substitute for wrenches. The following safety precautions shall be followed:
- Choose pliers or wire cutters that have a grip span of 6-9 cm (2.5 -3.5 inches) to prevent a palm or fingers from being pinched when the tools are closed.
- Make sure that the cutting edges and toothed jaws are clean and sharp.
- Pull-on, the pliers. Do not push away from you when applying pressure.
- Special cutters for heavy wire, reinforcing wire, and bolts shall be used as required.

6.24.6 CUTTING TOOLS

- Cut materials straight across – keep the material being cut at right angles to the cutting edges of blades.
- The cutting stroke should be away from the body. If that is not possible, then keep the hands and body in the clear.
- Sharpen blades according to manufacturers' instructions.
- Knives shall be kept in sheaths or holders.
- Never attempt to catch a cutting tool when it falls. Let it drop to the ground and then pick it up by the handle.
- While cutting with a retractable knife, use a metal ruler with an integral finger guard.
- Ensure a retractable knife blade is retracted after use.
- Do not pry or twist the tool when cutting.
- Do not hammer on cutting tools.
- Do not expose cutting tools to excessive heat

6.24.7 VICES

- Vices are used for holding material while work is performed.
- The jaws of a vice shall be tightened with hands pressure only.
- A vice shall be mounted so that the stationary jaw projects slightly beyond the edge of the workbench.
- Check the vice for cracks or other damage before clamping a workpiece.
- Place the workpiece in the vice so that the full clamping surface of the jaw supports the workpiece.
- Do not weld the base of the vice to secure it or repair a vice by welding or brazing.
- Do not cut into the jaws.
- Do not unscrew or open the jaws of the vice wider than they were designed to be used.

6.24.8 PRY BARS

- Use the proper size and type of pry bar for the specific task.
- The pry bar shall have a point or toe of such shape that it will grip the object to be moved, and a heel to act as a pivot or fulcrum.
- Use a block of wood under the heel as required, to prevent the pry bar from slipping

6.24.9 SAWS

- Select the proper saw for each specific task.

- Use a cross-cut saw for cutting across the grain, use a ripping saw for cutting with the grain.
- Saws must be kept sharp, and the teeth kept well set to prevent binding.
- Hacksaws shall be adjusted in the frame to prevent buckling and breaking.
- Install blades with teeth pointing forward.

6.25 HAZARD CONTROL SIGNAGE

6.25.1 PURPOSE

The purpose of this program is to ensure proper use of hazard control signage.

6.25.2 HAZARDS

- Overhead lines
- Chemical use
- Falls
- Dangerous gases, vapours
- Vehicle movements
- Critical lifts

6.25.3 PRECAUTIONS

Assess signage needs

- Conduct a hazard assessment for the job site and identify signage needs
- Determine needs for directional signs to the worksite
- Determine needs for warning signs for critical work
- Determine needs for traffic control signs

Obtain signs

- Use serviceable, clean, legible signs
- Traffic control signs must have reflective backgrounds

Placement of signs

- Position sign's ineffective locations
- Must be highly visible
- Must provide adequate warning
- Secure signs to prevent unwanted motion or collapse

Maintenance of signs

- Inspect routinely for:
- Placement
- Cleanliness
- Damage
- Missing

Critical task signs

- Place when just prior to beginning work
- Remove immediately on confirmation of removal of hazard

Road traffic control signs

- Worksites abandoned for more than 48 hours that have signs that affect normal traffic flow should remove or cover signs unless they are required for the safety of the road users.

6.26 HOT WORK

AB OHS REGUATION PART 10 SEC 169, 17-174, PART 18 SEC 231, PART 26 SEC 571, 746

Any work that has the potential to create a fire or explosion (such as grinding, cutting, welding, chipping, non-classified electrical tools, combustion engines or any spark-producing equipment) can be defined as hot work.

The purpose of the Hot Work permit is to allow for hot work to take place in a hazardous location where the hazard is entirely controlled. Hazardous locations are:

- those in which flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.
- installations or items of equipment that contain or may contain a flammable substance or its residue.
- vessels that contain residue that may release flammable vapours or gases when exposed to heat.

Some typical examples of hot work include:

- vehicles entering a hazardous area
- welding/grinding
- use of non-explosion proof or non-intrinsically safe tools
- opening explosion-proof electrical systems
- igniting burners with an open flame

6.26.1 GENERAL SAFETY PRECAUTIONS

- Hot work should not be performed in a location where a flammable substance is or may be in the atmosphere; stored, handled, processed or used; on a vessel when exposed to heat that may release flammable vapours or gasses.
- Atmospheric monitoring testing must be performed prior to starting any ignition source in an area that may contain vapours or gases. Testing shall be done at regular intervals and, depending on the nature of work, continuous monitoring may be required.
- When performing tests, care must be taken to ensure there is no trapped gas or liquid hydrocarbons. Likely locations of trapped gases or liquids are in gauge glasses, valves, fittings, level control columns and insulation. Special care should be taken when cutting holes, welding equipment, etc.
- A reasonable distance from the work area (50 feet) is considered a safe work area. Combustible materials should either be removed or covered with a fire blanket. If unable, a watch should monitor the area. Analyze your job to address any additional hazards that may arise from a specific task.
- Grounding cables must be in place for welding units and equipment that transfer materials from one container to another. Ground cables must be in good condition, and splices are adequately insulated. Loosely attaching cables can cause hardness of metal or even burn through from arching when welding.
- Pressure Safety Valves (PSV) that vent to atmospheres must be considered when starting a hot work job. Stay a minimum of 50 feet away.
- Drains and vents must be covered to prevent escaping gas that could ignite. Use a blanket or steam.
- Always have proper access and egress as well as a clear working area. Obstacles hinder personnel or evacuation in the event of a fire. Always ensure fire extinguishers and firefighting equipment is kept nearby when conducting hot work.

- Ensure that atmospheric testing shows that the atmosphere does not contain a flammable substance in a mixture with air in an amount exceeding 20% of the lower explosive limit for gas or vapour.

6.26.2 PERMIT

Goose Mechanical Inc. will ensure that hot work is not begun until:

- a hot work permit is issued that indicates
  - the nature of the hazard,
  - the type and frequency of atmospheric testing required,
  - the safe work procedures and precautionary measures to be taken, and
  - the protective equipment required,
  - the hot work location is
- cleared of combustible materials, or
- suitably isolated from combustible materials,
- procedures are implemented to ensure continuous safe performance of the hot work, and
- testing shows that the atmosphere does not contain
  - a flammable substance, in a mixture with air, in an amount exceeding 20 percent of that substance's lower explosive limit for gas or vapours, or
  - the minimum ignitable concentration for dust.

6.26.3 STORAGE & HANDLING

Goose Mechanical Inc. will ensure that:

- compressed or liquefied gas containers are used, handled, stored, and transported in accordance with the manufacturer's specifications,
- container or piping that contains or has contained a flammable substance is purged using an effective method to remove the flammable substance from the container or piping before any hot work is begun on that container or piping.
- a cylinder of compressed flammable gas is not stored in the same room as a cylinder of compressed oxygen unless the storage arrangements are in accordance with provincial Fire Code
- compressed or liquefied gas cylinders, piping, and fittings are protected from damage during handling, filling, transportation, and storage,
- compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and
- oxygen cylinders or valves, regulators, or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease.

If continuous safe performance of the hot work becomes questionable by either the permit issuer or the receiver, WORK MUST STOP IMMEDIATELY.

6.26.4 CSA STANDARDS

Goose Mechanical Inc. will comply with the requirements of CSA Standard W117.2-06, Safety in Welding, Cutting and Allied Processes (or current version).

6.26.5 EQUIPMENT

Goose Mechanical Inc. will ensure that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired, and dismantled in accordance with the manufacturer's specifications.

6.26.6 INSPECTION

Goose Mechanical Inc. will ensure that, before a weld or allied process is commenced, the area surrounding the operation is inspected and:

- welding equipment will be tested for any gas leaks before use, gas will be shut off, and out of service tag will be attached to the equipment until it has been repaired.
- all combustible, flammable, or explosive material, dust, gas, or vapour is removed, or
- alternate methods of rendering the area safe are implemented.
- Any work that has recently been welded or flame cut must be marked HOT or effectively guarded to protect other workers from injury.

6.26.7 HOT WORK ABOVE WORKERS

If a welding or allied process is performed above an area where a worker may be present, Goose Mechanical Inc. will ensure that adequate means are taken to protect a worker below the operation from sparks, debris, and other falling hazards.

6.26.8 FLASHBACK ARRESTORS

Where gas-burning or welding equipment is in use, Goose Mechanical Inc. will ensure that approved flashback devices are installed on both hoses at the regulator end.

6.26.9 FIRE EXTINGUISHERS

Fire extinguishers will be available at all locations that hot work is being performed. These extinguishers will be of adequate size to ensure that they can control fire hazards, i.e., combustibles, clearance distances, monitoring during and after work is completed.

6.26.10 PERSONAL PROTECTIVE EQUIPMENT

Goose Mechanical Inc. will ensure that any worker working in welding or burning operation must wear the following:

- arm protection and gloves made from leather or other approved material,
- apron made from leather or other approved material suitable for heavy work,
- eye and face protection and
- approved footwear made from leather or another approved material.

6.26.10.1 SAFE WORK PERMIT

Safe Work Permit
(not for Confined Space Entry)

Description

Date: _____ Location: _____

Company/Contractor Rep: _____ Vehicle or Equipment: _____

Time Permit Issued: _____ Time Permit Expires: _____ Time Permit Returned: _____

Describe Scope of Work: _____

_____

Type of Permit

☐ Cold Work ☐ Hot Work

Description

☐ Identify Potential Hazards	☐ Control Ignition Sources	☐ Overhead Hazards
Description:	Description:	Description:
☐ ERP - Posted	☐ Isolate and Lockout Energy Sources	☐ Provide Safety Standby
☐ Hold Pre-Job Meeting	☐ Hazardous Substances	☐ Designated Smoking Area
☐ Procedures/JSA Reviewed	☐ Monitor Induced Sources	☐ Communicate WHMIS
☐ Isolate and Lockout Electrical Sources	☐ Tool Box Meeting	☐ _____

Safety Equipment

☐ Gas Detector	☐ Fire Retardant Clothing	☐ Fall Protection	☐ Bonding/Grounding Equip.
☐ SCBA	☐ Chemical Resistant Clothing	☐ 20 lb. Fire Extinguisher	☐ Air Mover
☐ Air Purifying Respirator	☐ Chemical Googles	☐ Barricades	☐ Wind Sock
☐ Explosion Proof Equipment	☐ Face Shield	☐ 2-way radio	☐ Spark Arrestors
☐ Safety Glasses	☐ First Aid Kit	☐ Hearing Protection	☐ _____

Other

Specific Instructions: _____

Atmospheric Testing

☐ Testing Frequency ☐ Continuous Intermittent Test Frequency (hrs.) _____

Permissible Exposure Limits	Time	Time	Permissible Exposure Limits	Time	Time
Flammables (Hot Work 0% LEL)			H2S (0-10 ppm)		
Flammables (Cold Work 0-3% LEL)			Other		

Emergency Contacts

Name	Phone #	Location	Name	Phone #	Location

Signatures

Permit Issuer: _____ _____ _____

Permit Receiver: _____ _____ _____

(Print Name) (Signature) (Means of Communication)

Sign Off: _____ _____ Work Completed: ☐ Yes ☐ No

Issuer: _____ _____ Time Signed Off (24 Hr Clock): _____

Receiver: _____ _____ **NOTE:** Permit valid only for 12 hour period

(Print Name) (Signature)

6.27 HOUSEKEEPING

6.27.1 GENERAL SAFETY PRECAUTIONS

Housekeeping is the number one problem on worksites. Many incidents and near misses occur as a result of poor housekeeping.

Examples of poor housekeeping are numerous; tools and equipment not correctly stored, garbage areas creating health hazards, blocked emergency exits and access to fire extinguishers, sharp objects, wires, greases, scrap materials, and lumber with protruding nails, improper storage of materials reducing fire safety.

It is a Goose Mechanical Inc. requirement to maintain worksite areas. This will help in reducing controllable hazards. When a job or task is finished, the area will be cleaned with tools and equipment and put back in its proper places. Discarded parts, trash and soiled rags must be placed in appropriate waste or recycling containers. Housekeeping must be maintained at a reasonable standard on all worksites.

There are many things we can do to make housekeeping easier and the worksite safer:

- Follow safe work procedures and the requirements of the law.
- Always "clean as you go." Hazards will be reduced, and major cleanups avoided.
- Never continue to work where housekeeping has become a hazard!
- No material of any type will be stored on steps. Stairs are to be kept clean, dry, and free of any tripping or slipping hazards.
- Ensure walkways and laneways are kept clear of debris and/or slip and trip hazards.
- Weather can increase hazards, particularly in winter times:
  - Sand or de-icing products should be applied to icy areas.
  - Wet weather may lead to wet and/or muddy footwear, which contributes to slips and falls, use caution, and wipe your feet.
- Use proper waste containers.
- Clean up spills and leaks of any type quickly and properly.
- Clean and store tools, items, and equipment properly.
- Fix or report broken or damaged tools, equipment, etc.
- Keep lighting sources clean and clear.
- Follow maintenance requirements.

6.28 IMPACT DRILL

AB OHS CODE PART 25

An impact drill, also known as a hammer drill, is a rotary drill with a hammering action. The hammering action provides a short, rapid hammer thrust to pulverize relatively brittle material and provide quicker drilling. The hammering action is rated in blows per minute, or bpm. Variable-speed hammer drills can turn out up to 40,000 bpm.

6.28.1 SUPERVISOR RESPONSIBILITIES

Supervisors are responsible for facilitating and/or provide proper instruction to the workers on protection requirements and training.

6.28.2 WORKER RESPONSIBILITIES

- Electrical tools must have three-wire (grounding) cord and plug, excluding double-insulated tools.
- On/off switches must be functional and positioned so the Operator has access.
- Accessories can only be used that are designed for use with the tools specified.
- Saw blades must be designed for the product being cut, and at the rated speed, O.E.M. guards must be in place and functional.
- Cracked a/o splintered handles to be replaced.
- All tools must be cleaned after use and repairs made before being correctly stored.
- Tools to be used for a designed purpose only.
- Repairs to tools must be performed by qualified personnel, using O.E.M. parts or equivalent.
- Follow tool safe work procedures step by step.

6.28.3 GENERAL SAFETY PRECAUTIONS

- Prior to any hammer drill work commencing, a hazard assessment of all applicable work areas must be conducted.
- No worker shall operate any power tool or similar type of equipment unless they are familiar with the use and operation of the equipment and has received specific instruction on its use and operations.
- Only authorized personnel should use the following tool.
- Inspect the tool prior to each use.
- Ensure that all parts of the tool operate positively.
- Make sure the bit is appropriately centred and tightened before you begin work
- When using any hammer drill, all workers must understand their role and comply with applicable Regulations and Goose Mechanical Inc. policies.
- Workers must be wearing proper Personal Protective Equipment (PPE).
- As a primary objective, all workers must ensure no dust is released. This can be achieved through the application of water directly on the drill bit.
- When it is not possible to control the dust, all workers involved must wear appropriate respiratory protection.
- Always ensure the tool is insulated, and the power cord is in good condition.
- Keep the drill's airports clear of debris to protect the motor from overheating.
- Ear protection is mandatory while using hammer drills as the noise generated is greater than 85 dB.

- Always be sure you are on firm footing when operating tools. Brace yourself at all times when working on ladders and scaffolds to maintain balance.
- Always keep tools pointed in a safe direction. Never carry the tool with a bit inserted into it. This is an impalement hazard.
- Never change a bit while the tool is connected to the power source.
- Ensure the tool is connected to a Ground Fault Circuit Interrupter system or have an alternative "acceptable" means of protection (Assured Grounding System).
- Always use the tool at right angles to the work.
- Clean and maintain tool in accordance with the manufacturer's instructions.
- Never adjust the machine while it is operating.

6.29 KNIFE SAFETY

To avoid cuts, workers must stay sharp, always keeping their minds on safety when using industrial knives. There are countless types and styles of cutting devices. While each may have a different shape and function, they all have one thing in common: the ability to cause serious injury when used improperly or in a careless manner.

6.29.1 IMPORTANCE OF A SHARP BLADE

No matter what type of application you have or the environment you are working in, keeping a sharp blade makes it easier to cut through the material. This allows the worker to exert less effort and makes it easier to maintain good posture while keeping the blade under control. Depending on the type of knife you are using, there are various ways to maintain a sharp blade.

6.29.2 UTILITY KNIFE BLADES

- The blade on some utility knives may be scored to allow the dull section to be snapped off and a sharp edge to take its place. When performing this function, always wear safety glasses because the blade may fly away with enough force to cause an eye injury.
- Always use an assist device to snap the blade, such as a pair of pliers. Never use your hand or force the blade against a solid object.
- Other types of utility knives require a new blade to be installed and the worn one replaced. Before doing this, make sure you know how to replace the blade and have the correct replacement on hand.
- Remember, even a worn blade is sharp and must be handled carefully. Only hold the blades on the unsharpened side; never hold a blade by the sharp side.
- When disposing of a used blade, it must be disposed of in a safe manner. Do not just throw it in the trash; this places others at risk.
- The best place to dispose of a used blade is in a "sharps" container
- After installing a new blade, reassemble the knife, making sure all the screws are properly tightened to ensure the knife will not break open or come apart during use.

6.29.3 SHARPENING & INSPECTING FIXED BLADE KNIVES

- Fixed blade knives must also be kept sharp and inspected for good working conditions.
- Before using a knife, check for any signs of damage, such as cracked or damaged handles. Make sure the connection between the blade and the handle is secure.
- Knives with loose blades, damaged handles or other defects must be removed from service.
- While it is important to keep the blade sharp, knives should only be sharpened by a person properly trained and authorized by Goose Mechanical Inc.

6.29.4 KEEPING BODY PARTS AWAY FROM BLADE'S PATH OF TRAVEL

- Another safety tip for preventing injuries while using knives is to maintain an awareness of where your body parts are located relative to the path the blade will travel.
- Before beginning any cutting motion, make sure your free hand is out of the way. This may seem easy when performing simple, slow-paced cutting tasks like opening boxes, but when faced with a fast-paced repetitive task, it takes deliberate concentration and effort to avoid injury.

6.29.5 CUT-RESISTANT GLOVES

- Various types of cut-resistant gloves are available to provide protection from an inadvertent cut or loss of control.
- Many times, a cut-resistant glove is worn under some other type of glove.
- When you are required by Goose Mechanical Inc. to wear a cut-resistant glove while performing a task, be sure to do so. It only takes a moment for a serious injury to occur.

6.29.6 OTHER KNIFE SAFETY TIPS

- Make sure you are using the right knife for the job. A good sharp knife should cut without difficulty, allowing you to get the job done quickly and safely.
- A knife is used for cutting and cutting only; never use a knife as a screwdriver or prying tool.
- Avoid any moments of carelessness if we are to prevent injury.
- Always make cuts away from your body.
- If you have to make cuts close to your body, be sure to wear the proper PPE to avoid injury.
- Do not use too much pressure to cut.
- Never use a defective knife – such as one with a broken handle, blade, or lock system.
- Never attempt to cut an object when either you or the object is unstable.
- Where possible, place objects on a flat, stable surface before cutting. When this is not possible, at least make sure you have a stable stance and have a clear path of blade travel before cutting.
- Never hold or carry a knife by the blade; any type of mishap could lead to an injury. This includes handing the knife to someone else while holding the blade.
- Always return a knife with a fixed blade to its sheath, scabbard, or designated storage area as soon as you are finished cutting.
- Never leave a knife uncovered on a table or workbench
- Always store the knife with the cutting edge down or covered
- Follow good housekeeping practices. This can prevent many knife injuries.
- Should you happen to drop a knife, never attempt to catch it? It is better to let it hit the floor than risk grabbing the blade.
- If you have to travel while holding a fixed blade knife, keep the tip pointed down and walk carefully. Stay alert for co-workers who may be in your travel path.

6.30 LADDERS

AB OHS CODE PART 8 SEC 127 - 137

6.30.1 PURPOSE

Ladders are utilized for access and egress to work areas and, to a more limited sense, to work from.

6.30.2 HAZARDS

There are many hazards that are associated with ladder use, some of which include:

- falls
- falling objects
- contact with energized equipment
- access/egress
- structural failure of the ladder

6.30.3 INSPECTION & MAINTENANCE

Goose Mechanical Inc. will inspect ladders prior to use and ensure that all ladders are maintained and kept in good condition- damaged ladders are to be removed from service, tagged and immediately repaired or replaced. Ladders are never to be stored by leaning against any equipment, vessel, etc.

6.30.4 TRAINING

Goose Mechanical Inc. will ensure all employees are trained in ladder safety prior to using a ladder

6.30.5 PERSONAL PROTECTIVE EQUIPMENT

Employees will be required to utilize appropriate personal protective equipment when accessing a ladder:

- fall protection in each jurisdiction:
  - Alberta: 3.0 metres
  -
- clean CSA-approved boots are to be worn at all times.

6.30.6 ELECTRICAL SAFETY

Goose Mechanical Inc. will ensure that the ladder used during the servicing of energized or potentially energized electrical equipment will be made of non- conductive material.

6.30.7 ACCEPTABLE LADDERS

Goose Mechanical Inc. will use:

- CSA/ANS approved spike foot ladders for soft surfaces.
- Non-slip foot ladders for hard, smooth surfaces.
- Non-conductive ladders for electrical work.

6.30.8 PORTABLE LADDERS

Goose Mechanical Inc. will ensure that a portable ladder is placed on a stable base so that it will be secured against any movement while in use and placed no further from the base or the wall/structure than one-quarter of the distance between the base and where it makes contact with the wall.

6.30.9 STEP LADDERS

Goose Mechanical Inc. will ensure that a step ladder is only used in the fully opened position with the spreader bars locked into place. Employees are not to use a step ladder as support for scaffolding planks and never utilize the top cap as a step.

6.30.10 EXTENSION LADDERS

Goose Mechanical Inc. will ensure that:

- ladders extend at least one meter (3 rungs) beyond the dismount point
- when extended, the overlap of upper and lower sections must not be less than one meter
- the base of the ladder is set with one foot horizontal for every four feet vertical
- the ladder is secured at the top and bottom by tying it off or having another worker hold the ladder while occupied
- the side rails of a portable ladder extend at least 1 meter above a platform, landing, or parapet if the ladder is used as a means of access to the platform, landing, or parapet.

6.30.11 PRECAUTIONS

For all types of portable ladders, there are general safety precautions that the company requires of all employees:

- when going up or down ladders; always face the ladder- keep both hands free and maintain three-point contact at all times (either one hand with two feet or one foot with two hands)
- do not work from the top two rungs of any type of ladder for any reason
- only one worker shall be on a ladder at any given time
- look up/down before accessing
- set up barricades or warnings around ladder if it must be set close to thoroughfares or passageway doors
- ladders shall be set up on a secure, firm, level surface
- keep the center of your body within the side rails of the ladder, do not over-reach or extend
- do not use makeshift items (such as barrels or pails) as a substitute for a ladder; and
- do not use a ladder to enter or leave an elevated or sub-level work area if the area has another safe and recognizable way to enter or leave it.

6.31 LEAD EXPOSURE

AB OHS CODE PART 4, SEC 16

Lead occurs naturally in the environment and has many industrial uses. Everyone is exposed to low levels of lead through food, drinking water, air, household dust, soil, and some consumer products. However, ongoing exposure to even small amounts of lead may be harmful to your health.

The amount of lead in the environment increased during the industrial revolution, and again significantly in the 1920s with the introduction of leaded gasoline. Levels of lead in the Canadian environment and in Canadians have declined significantly over the past 30 years. According to data from the Canadian Health Measures Survey, blood lead levels in Canadians aged 6-79 years have declined over 70% since the 1970s.

As Goose Mechanical Inc. may occasionally handle or dispose of lead, it is important to ensure employees are aware of the hazards of lead. Managers and supervisors will ensure that employees and contractors who may be required to work with or around lead adhere to safe work practices and are made aware of the hazards associated with lead.

6.31.1 EFFECTS OF LEAD

Recent scientific studies on lead show that adverse health effects are occurring at lower levels of exposure to lead than previously thought. At low levels of exposure to lead, the main health effect observed the nervous system; specifically, exposure to lead may have subtle effects on the intellectual development of infants and children. Infants and toddlers are particularly vulnerable to the harmful effects of lead because they are undergoing a period of rapid development; furthermore, their growing bodies absorb lead more easily and excrete lead less efficiently than adults. In addition, infants and young children are more likely to ingest lead because of their natural habit of putting objects into their mouths.

Once in the body, lead circulates in the blood and either builds up in bone or is eliminated from the body, mostly in urine. Lead can stay in the body for over 30 years following exposure. Health effects associated with exposure to high levels of lead include vomiting, diarrhea, convulsions, coma or even death. However, such severe cases of lead poisoning are rare in Canada.

6.31.2 AIR MONITORING

If there is a potential for hazardous exposure to airborne lead at a worksite, Goose Mechanical Inc. will ensure that air monitoring is conducted:

1. during the first shift of the construction project involving lead, and
2. as necessary throughout the project to ensure that controls are effective and respiratory protection is adequate.

6.31.3 EXPOSURE LEVELS

Goose Mechanical Inc. will ensure that employees exposed to lead will be kept as low as possible and does not exceed its occupational limit. 8-hour Occupational Exposure Limits for lead is 0.05 mg/m3 (there is no 15-minute STEL for lead). Goose Mechanical Inc. has a responsibility to arrange medical examinations and biological monitoring when necessary for our employees to ensure that they are not adversely affected by exposure to work-related lead. Goose Mechanical Inc. will ensure that medical examinations are performed by a registered medical practitioner. Generally, the medical

practitioner should be appropriately trained in occupational medicine. Biological monitoring must also be carried out under the supervision of a registered medical practitioner. The medical practitioner should also understand the employees' work activities and should be provided with:

- a copy of the SDS (if applicable to a product),
- access to appropriate risk assessment reports,
- details of work practices and work cycles to assist in establishing appropriate time frames for monitoring.

Goose Mechanical Inc. must also ensure that:

- We are provided in writing with the name, address, and telephone number of the medical practitioner
- a copy of the medical examination results is given to the employee as soon as possible
- the results of all medical examinations and biological monitoring are kept for 30 years

The main purpose of a medical examination is to monitor the health of employees exposed to lead. Medical examinations should never be used as an alternative to implementing risk controls and maintaining them properly. Medical examinations help to minimize the risk of adverse health effects of lead by:

- identifying individuals who should be monitored more closely because they are pregnant or are more susceptible due to a medical condition such as anemia, or kidney disease
- confirming that the biological monitoring results are below the removal levels
- early detection of health effects of lead which require the employee to be removed from exposure

6.31.4 POSSIBLE LOCATIONS OF LEAD

While lead is not deliberately added to foods, low levels of lead have been detected in a variety of foods. Lead is introduced to foods through uptake from the soil into plants and by airborne lead falling onto plant surfaces. Additionally, lead may be introduced to foods during transport to market, processing, and kitchen preparation, including cooking with water contaminated with lead or from the use of lead-containing utensils and storage of food in containers containing lead such as lead-glazed ceramic food ware or lead crystal ware.

- Lead can enter the water supply from old lead service connections or lead solder in the plumbing in your home
- Dust and soil may contain lead.
- Lead is released into the air through industrial emissions, smelters, and refineries.
- Lead-based paint in a home/building is a serious health hazard if it is chipping or flaking.
- Some specialty coatings, such as artists' paints and metal touch-up coatings, can contain higher levels of lead.
- Most indoor and outdoor paints made before 1950 contained substantial amounts of lead.
- Use of lead or lead solder, such as making stained glass, lead shot or lead fishing weights
- Older buildings that contain deteriorating lead paint or that are undergoing renovation activities
- Welding, brazing and soldering products where lead is in the metal, on the metal or in the solder or braze.

Workers in smelters, refineries and other industries may be exposed to high levels of lead. Lead dust may be breathed in. It can also cling to skin, hair, clothing, and vehicles and be carried to the home.

6.31.5 RESPONSIBILITIES

Management:

- Work with the employees to identify hazards and ensure processes to eliminate, reduce or control the hazard.

- Ensure a written hazard assessment is accurate and in place.
- Ensure that all codes and regulations are followed.
- Ensure that supervisors and workers are trained.
- Ensure that workers are provided health assessments at required periods

Employees:

- Conduct and review the Job Safety/Hazard Analysis process.
- Use the appropriate control measures, training, equipment, and protective clothing to ensure their safety and those around them.
- Work with the employer to identify improvements and changes that may be made to ensure the safety of all workers.

6.31.6 WARNING SIGNS

Warning signs must be posted at the boundary of any work area where hazardous lead exposures could occur.

6.31.7 PERSONAL HYGIENE AND CLEAN WORK SURFACES

If exposure to finely divided lead or lead compounds results in the contamination of exposed skin or work clothing, the requirements for personal hygiene must be met. All surfaces in the work area must be kept as free as practicable from accumulations of lead dust.

6.31.8 CONTAMINATION & PPE

Goose Mechanical Inc. will ensure:

- employees will be required to wear respiratory protection when the airborne concentration of lead cannot be reduced
- workers in a restricted area are provided with protective clothing that protects other clothing worn by the worker from lead contamination
- workers' street clothing is not contaminated by lead
- all work areas must be kept as free as practicable from lead dust accumulation
- a worker does not leave a restricted area until the worker has been decontaminated
- a worker will wash hands and face immediately if they encounter lead

6.31.9 LEAD REMOVAL

Removal of lead dust must be done by a means which prevents the dispersal of finely divided lead into any work area.

6.31.10 INSTRUCTION AND TRAINING

Goose Mechanical Inc. will ensure that a worker who is at risk of exposure to lead is adequately instructed and trained in:

- the hazards of lead,
- the written work procedures to be followed, personal protective equipment,
- personal hygiene and decontamination procedures, and
- the purpose and significance of any health monitoring.

6.32 LOAD SECUREMENT

6.32.1 PURPOSE

This practice is intended to protect workers from injury/incidents associated with securing loads in vehicles.

6.32.2 GENERAL SAFETY PRECAUTIONS

- Ensure personnel are competent and fit for work to perform the task
- Obtain applicable work permits as required
- Complete a hazard assessment to discuss hazards and controls to eliminate or reduce the risks associated with the task
- Ensure all required PPE is donned for the task
- The operator is solely responsible for the load, confirming it's secured and being transported properly.

6.32.3 CARGO SECUREMENT

Cargo transported by a vehicle shall be contained, immobilized or secured so that it cannot:

- Leak, spill, blow off, fall from or be dislodged from the vehicle
- Shift upon or within the vehicle to such extent it affects the stability or maneuverability of the vehicle
- Cargo must look neat and tidy
- Cargo must not prevent the driver's free and ready access to accessories required for emergencies (i.e. fire extinguishers, etc.)
- Cargo must not prevent the free and ready exit of any person from the commercial motor vehicle's cab or driver's compartment
- Cargo must not prevent the free and ready exit of any person from the commercial motor vehicle's cab or driver's compartment

The components of the cargo securement systems (i.e. strapping, chains, cargo nets etc.):

- Shall be in proper working order
- Shall be fit for the intended purpose
- Shall have no knotted, damaged or weakened components
- Any cuts, cracks, rust or other damage must be reported, and item tagged out of service or discarded
- Clearly marked manufacturers working load limit
- The minimum strength of strapping shall not have a working load limit less than 50% of the weight of article(s) combined
- Ensure everything in the cab is secure
- Ensure that there is a clear vision to the front and down both sides of the truck
- Use strap protection when strapping over any sharp edges
- Secure all headache rack items
- Use 1 strap per 5 feet on any item 10 feet or longer (i.e. 2 straps per box of PVC pipe). Exception — 1" to 2" strap is sufficient for PVC pipe in boxes in cradles on drills
- Any cargo hanging off the deck should be clearly marked with caution flagging

6.32.4 LOAD SECUREMENT INSPECTION

Drivers must inspect cargo securement at certain intervals and make adjustments as necessary. At minimum:

- Before leaving site
- Within the first 80 kilometres
- After every 3 hours or after 240 kilometres

6.32.5 LOAD SECUREMENT ABSOLUTES (DO NOT)

- Proceed to transport load without completing a thorough inspection of load
- Transport an unsecured load
- Use defective cargo nets and secure equipment
- Violate the rules of the road
- Exceed the trailer limiting capacity

6.33 LOCKOUT TAGOUT – MANAGING THE CONTROL OF HAZRDOUS ENERGY

AB OHS CODE PART 15, PART 22 SEC 310-312 & 317, PART 31 SEC 437

6.33.1 PURPOSE

A lockout/tag-out program will help prevent:

- Contact with a hazard while performing tasks that require the removal, by-passing, or deactivation of safeguarding devices.
- The unintended release of hazardous energy (stored energy).
- The unintended start-up or motion of machinery, equipment, or processes.

6.33.2 RESPONSIBILITIES

Management and employees will share responsibilities in the LOCKOUT/TAGOUT Program. Management will be responsible for updating the program whenever necessary. All employees shall be instructed as to the safety significance of the LOCKOUT/TAGOUT Procedures. Training shall be done during orientation and updated annually during Goose Mechanical Inc. safety meetings.

6.33.3 LOCKOUT TAG OUT

Workers servicing, repairing, testing, adjusting or inspecting machinery, equipment, powered mobile equipment, piping, pipelines, or process systems may be injured if there is unintentional movement, the equipment is unexpectedly energized unexpectedly started up, or releases stored energy. A detailed, comprehensive hazard assessment can identify the type and location of hazardous energy sources.

If the work is to be done that may endanger a worker, Goose Mechanical Inc. will ensure that the work is done by a worker who is competent to do the work. Goose Mechanical Inc. will ensure that workers who may be required to use safety equipment are competent in the application, care, use, maintenance, and limitations of that equipment. Goose Mechanical Inc. will ensure that any employee that performs maintenance or that may work within the area of the Lockout Tagout program being performed will be provided with appropriate training- including awareness training.

6.33.4 ISOLATING ENERGY SOURCES

If there is a hazard to workers, Goose Mechanical Inc. will isolate the location at which work is to be carried out from sources of energy. This is accomplished by turning off and/or disconnecting energy control points, such as:

- Electrical plugs, switches, and valves
- Turning off circuit breakers
- Shutting off the machine, equipment, or process systems
- Regulating flow in piping or pipelines and by operating or installing a mechanical device (energy-isolating device) that relieves, blocks, bleeds, restraints or otherwise physically prevents or controls the transmission or release of energy for each energy source that may affect the work area

If machinery, equipment, or powered mobile equipment is to be serviced, repaired, tested, adjusted, or inspected, Goose Mechanical Inc. will ensure that no worker performs such work on the machinery, equipment, or powered mobile equipment until it has come to a complete stop and:

- all hazardous energy at the location at which the work is to be carried out is isolated by activation of an energy isolating device, and the energy isolating device is secured
- the machinery, equipment, or powered mobile equipment is otherwise rendered inoperative in a manner that prevents its accidental activation and provides equal or greater protection

Goose Mechanical Inc. will ensure that electrical equipment that might be fed by more than one source should be tested with a voltage meter to verify the absence of any electrical energy.

Goose Mechanical Inc. will choose from three different approaches to secure an energy isolating device:

- by individual workers
- by a group
- by a complex group process

6.33.5 MAINTENANCE WHILE EQUIPMENT IS IN OPERATION

This approach is only justifiable if the manufacturer requires it, or it is not reasonably practicable, in the case where there are no manufacturer specifications, to render the equipment inoperative. The approach cannot be used because it is more convenient than isolating and securing. If we require maintenance to be done while equipment is in operation, Goose Mechanical Inc. will develop and implement written procedures for control of identified points of hazardous energy to ensure that the work is performed safely.

Machinery, equipment, or powered mobile equipment will be serviced, repaired, tested, adjusted, or inspected safely if:

- the manufacturer's specifications require the machinery, equipment, or powered mobile equipment to remain operative while it is being serviced, repaired, tested, adjusted, or inspected
- there are no manufacturer's specifications, and it is not reasonably practicable to stop or render the machinery, equipment, or powered mobile equipment inoperative

6.33.6 ISOLATING ENERGY SOURCES ON PIPING, PIPELINES OR PROCESS SYSTEMS

Goose Mechanical Inc. will ensure that blanking, blinding or double block-and-bleed systems are in place and can be used to isolate pipes containing harmful substances under pressure. If piping, a pipeline or a process system containing a harmful substance under pressure is to be serviced, repaired, tested, adjusted or inspected, an employer must ensure that no worker performs such work on the piping, pipeline, or process system until flow in the piping, pipeline, or process system has been stopped or regulated to a safe level, and the location at which the work is to be carried out is isolated and secured.

Blanking involves inserting a physical barrier through the cross-section of a pipe so that materials are prevented from flowing past that point. Blinding involves disconnecting a pipe and attaching a physical barrier to its end so that materials are prevented from flowing out of the pipe. Double blocking and bleeding involve the use of a three-valve system where a pipe has two closed valves and an open drain valve positioned between them so that material is prevented from flowing and is re-directed in case of a valve leak.

6.33.7 ZERO ENERGY

A worker must not perform work in machinery, equipment, or powered mobile equipment to be serviced, repaired, tested, adjusted, or inspected until:

- energy sources are isolated
- the machinery, equipment, or powered mobile equipment is tested to verify that it is inoperative
- the worker is satisfied that it is inoperative

If a worker finds an energy release during the verification of de-energization, work cannot proceed until this source is located, isolated and ultimately verified as being de-energized. Once all energy sources are confirmed as de-energized, switches can be turned off, and all valves can be closed.

6.33.8 DEFINITION OF ZERO ENERGY STATE

Zero energy state is the point at which machinery or equipment has no energy flowing to or from it. As a result, it does not have the potential to cause accidental physical harm or injury if handled in this state.

6.33.9 LOCKOUT TAGOUT DEVICES

Before carrying out the work, all energy-isolating devices that control an energy source and will be involved in the isolation must be located. Once all energy isolating devices have been activated to control hazardous energy, a worker involved in work at each location requiring control of hazardous energy secures each energy-isolating device with a personal lock. Each personal lock used will have a unique mark or identification tag on it to identify it as belonging to the worker to whom it is assigned.

Examples of an energy-isolating device include:

- a manually operated electrical circuit breaker
- a disconnect switch
- a line valve
- a block or similar device that blocks or isolates energy

This is documented on the ***Lockout & Isolation Form.***

6.33.10 GROUP LOCKOUT

When multiple workers are involved or multiple energy-isolating devices must be secured, a group process can be used. If group lockout is required, Goose Mechanical Inc. will ensure a procedure is written before work commences. Once all required energy-isolating devices have been by a worker designated, Goose Mechanical Inc. will ensure that a designated worker has:

- secured all energy-isolating devices
- secured any keys for the devices used under clause (a) to a key securing system such as a lockbox
- completed, signed and posted a checklist that identifies the machinery or equipment covered by the hazardous energy control procedure
- verified and documented that all sources of hazardous energy are effectively isolated

6.33.11 REMOVAL OF LOCKS

Once the maintenance has been completed, each worker that affixed a lock or securing device to the equipment must remove their own lock. Supervisors are responsible for ensuring that all personnel are out of harm's way, any potential hazards have been cleared from the area (such as slipping or tripping hazards), and all guards are in place prior to the equipment start-up. A person must not remove a personal lock or another securing device unless the person is the worker who installed it.

In an emergency, if the worker who installed a lock or other securing device is not available, or if a lock was left on a machine inadvertently- a supervisor may remove the lock or other securing device in accordance with a procedure that includes verifying that no workers will be in danger due to the removal. Securing devices will not be removed until:

- All efforts to contact the worker that attached the lock has been made.
- each involved worker is accounted for and any personal locks placed by workers are removed
- procedures are implemented to verify that no worker is in danger before a worker removes the securing devices, and the machinery, equipment, powered mobile equipment, piping, pipeline, or process system is returned to operation

6.33.12 TRAINING

Training shall be done during orientation and updated annually during Goose Mechanical Inc. safety meetings. Tagout program being performed will be provided with appropriate training- including awareness training.

6.33.12.1 LOCKOUT & ISOLATION LIST

Lockout & Isolation List

Date: _____ Client: _____

Job Number: _____ Facility: _____

Supervisor: _____ Work Location: _____

Name & Lock Number	Phone No.	Date On	Date Off	Location of Lock

Comments:

6.34 MANUAL LIFTING

AB OHS CODE PART 14

6.34.1 PERFORMING HAZARD ASSESSMENT

A hazard assessment should be performed

- prior to the design and installation of a new workstation
- when a work process or operation changes; and
- when a new work process is introduced.

Before a worker manually lifts, lowers, pushes, pulls, carries, handles, or transports a load that could injure the worker, Goose Mechanical Inc. will perform a hazard assessment that considers:

- the weight of the load,
- the size of the load,
- the shape of the load,
- the number of times the load will be moved, and
- the manner in which the load will be moved.

The purpose of performing a hazard assessment is to identify workplace hazards specific to the lifting and handling of loads that can cause or aggravate an injury. Once the assessment has been completed and hazards identified, they must be eliminated or controlled.

6.34.2 DETERMINING HAZARDS

	Physical Risk Factor	Duration
Awkward body position	• Working with hand(s) above the head, of the elbow(s) above the shoulder. • Working with the neck or back bent more than 30 degrees (without support and without the ability to change posture) • Squatting & Kneeling	• More than 2 hr per day.
High hand force	• Pinching an unsupported object(s) weighing 2 lbs. or more per hand or pinching with a force of 4 lbs. per hand (comparable to pinching half a ream of paper.) • Gripping an unsupported object(s) weighting 4.5 kg per hand or gripping with a force of 10 lbs. per hand.	• More than 2 hr per day.
Highly repetitive motion	• Repeating the same motion with the neck, shoulders, elbows, wrists or hands (excluding keying activities) with little or no variation every few seconds. • Performing intensive keying.	• More than 2 hr per day
Heavy, frequent or awkward lifting	• Lifting objects weighing more than • 75 lbs. once per day or 55lbs more than 10 times per day. • Lifting objects weighing more than 10 lbs if done more than twice per minute. • Lifting objects weighing more than 25 lbs. above the shoulders, below the knees, or at arm's length more than 25 times per day.	• More than 2 hr per day.

6.34.3 MECHANIZED EQUIPMENT

The lifting and handling of loads, usually called manual materials handling, is often physically demanding work. Lifting and handling involves the activities of lifting, pushing, pulling, carrying, handling, or transporting loads. By reducing the

amount and type of manual handling that workers must do, workers and the company may experience a reduction in the number of worker injuries (fewer sprains, strains, and back injuries), a reduction in the number of lost-time claims, increases in efficiency and productivity, and fewer product losses through damage.

To accomplish this, Goose Mechanical Inc. must provide, where reasonably practicable, appropriate equipment that will help workers lift, lower, push, pull, carry, handle or transport heavy or awkward loads. In many cases, the equipment will cost little; in others, a meaningful investment may be necessary.

Goose Mechanical Inc. will be responsible for making sure that workers use the equipment provided. Workers must be trained in the safe operation of the equipment they are required to operate. Worker training must include the following:

- Selection of the appropriate equipment.
- Limitations of the equipment.
- Operator's pre-use inspection.
- Use of the equipment.
- Operator skills required by the manufacturer's specifications for the equipment.
- Basic mechanical and maintenance requirements of the equipment.
- Loading and unloading the equipment if doing so is a job requirement.
- Hazards specific to the operation of the equipment at the worksite.

Workers must use the equipment provided and must apply the training that they have received.

6.34.4 ERGONOMIC TRAINING

Goose Mechanical Inc. will ensure that a worker who may be exposed to the possibility of musculoskeletal injury is trained in specific measures to eliminate or reduce that possibility. Goose Mechanical Inc. will ensure that the training includes:

- identification of factors that could lead to a musculoskeletal injury,
- the early signs and symptoms of musculoskeletal injury and their potential health effects, and
- preventive measures including, where applicable, the use of altered work procedures, mechanical aids, and personal protective equipment.
- safe handling of lifting loads

6.34.5 ADAPTING HEAVY OR AWKWARD LOADS

In some situations, and with a particularly heavy or awkward load, it may not be reasonably practical for Goose Mechanical Inc. to provide equipment as required by:

In such circumstances, we will:

(1) Adapt the load to make it easier for workers to lift, lower, push, pull, carry, handle, or transport the load without injury. Examples of how to do this include:
   (a) reducing the weight of the load by dividing it into two or more manageable loads
   (b) increasing the weight of the load so that no worker can handle it, and therefore mechanical assistance is required
   (c) reducing the capacity of the container
   (d) reducing the distance, the load must be held away from the body by reducing the size of the packaging

(e) providing handholds

(2) Otherwise, minimize the manual handling required to move the load. Examples of how to do this include:

(a) team lift the object with two or more workers

(b) improve the layout of the work process to minimize the need to move materials

(c) reorganize the work method(s) to eliminate or reduce repeated handling of the same object

(d) rotate workers to jobs with light or no manual handling

(e) use mobile storage racks to avoid unnecessary loading and unloading

6.34.6 PROPER LIFTING

Avoid injury while lifting with these simple steps:

- Whenever possible, avoid lifting and/or carrying heavy and bulky objects. Use lifting and moving aids whenever possible (i.e., Forklifts, hoists, carts, and dollies).
- Get help from others.
- Hold the object you are lifting as close to your body as possible.
- Avoid awkward posture while lifting, such as bending, reaching, and twisting.
- When turning, pivot with feet rather than twisting at your waist.
- Keep the load between your shoulders and knees.
- Bend at the knees, not the waist.
- Lift smoothly and slowly.
- Get a good grip before lifting.
- Avoid performing the same lifting task repeatedly over a long period – try rotating tasks throughout your day so that repetitive motions do not injure or strain your muscles.
- Always use a ladder or step stool to reach high shelves.
- Stack heavy objects no higher than knee to chest level.
- Make sure boxes or other objects being stacked are stable.
- Watch for ice in cold-storage areas.
- Take breaks to relieve sore muscles.

6.35 MANHOLES - OPENING COVERS

Whenever the cover is to be removed from a manhole, precautions must be undertaken.

6.35.1 PROTECTIVE MECHANISMS

- Safe work procedure
- Traffic control mechanisms
- Breathing air apparatus
- Air movers and monitors
- PPE
- Barricades and warning signs
- Confined Space Code of Practice/Permit system
- ERP (Emergency Response Plan)

6.35.2 RESPONSIBILITY

Management & Supervisors:

- Supervisors are responsible for facilitating and/or provide proper instruction to their workers on protection requirements and training
- Hazard analysis
- Worksite inspection

Worker:

- Ensure obstructions to traffic shall be guarded by adequate signs, barricades, lights, flares, or flags.
- Ensure a blow torch or other open flame is not utilized to melt the ice around a manhole or vault cover.
- Ensure covers are removed and replaced using approved hooks or hoists.
- Ensure forced ventilation is used for oxygen deficiency.
- Ensure equipment is in good working conditions.
- Ensure you are trained in the use of breathing air apparatus.
- Before any work is done on a cable, it shall be identified by an approved method.

6.35.3 PRECAUTIONS

- Before removing manhole or entrance covers, do a risk assessment. Test the atmosphere inside the manhole.
- Clean off the top of the manhole cover, as it may be covered with a layer of dirt, debris, and other material.
- Check the manhole cover design to determine the proper method & tools of removal. Locate the hole in the manhole cover; insert the lifting tool. Place a foot on either side of the manhole. If you can do this without squatting, you might be able to lift the cover. If not, you will need a mechanical lifter and another person.
- Stand with your back straight and knees bent. Lift the cover just enough to clear the frame. Do not stand on the frame where the cover rested; it might be rotted and break away. Drag the cover away from the hole. Do not lift the cover with your hands. Pull it away at a 45-degree angle; do not try to raise it completely off the ground.
- Manhole opening must be promptly guarded by a railing, temporary cover, or other temporary barriers. Use barricades and/or warning devices to direct traffic around open manholes.

6.36 MECHANICAL VIBRATION TOOLS

Goose Mechanical Inc. utilized mechanical vibrating tools on a regular basis. This safe work practice has been put in place to reduce the risk to workers of vibration.

Vibrations are mechanical oscillations around a reference point that are caused by pressure waves transmitted through solids; the characteristic vibration oscillations can either be free or forced, i.e., influenced by an external force, such as in the use of vibrating tools.

The vibration energy is transmitted to the human body through contact with vibrating tools or surfaces; similarly to many mechanical systems, the human body has the ability to dampen oscillations, thus reducing their amplitude. In the standing position, the lower limbs dampen vertical vibrations, whereas the hands, the elbows, and the shoulders, gradually dampen the horizontal ones, which are mainly transmitted through the hands. Each part of the human body has its own oscillation frequency; therefore, the response to vibration may differ according to the various regions of the body involved.

Vibrations are divided into those transmitted to the hand-arm system and those transmitted to the whole body. The former can be differentiated according to how the vibrations are transmitted, namely:

- grips (portable machine tools)
- hand-held material processed by machines (fixed machine tools)
- handles, handlebar or steering- wheel (self-propelled machines, transport vehicles).

The latter vibrations are mainly caused by the propulsion system of industrial machinery or transport vehicles, and by jolting of the body due to surface roughness.

Many types of research have shown that the widespread use of various vibrating tools in the industrial, agricultural and forestry fields, such as vehicles and machinery in the workplace, is a source of vibration disorders or the worsening of pre-existing symptoms.

6.36.1 HAZARD ASSESSMENT

The assessment must take into account the following elements:

- the level, type and duration of exposure, including any exposure to intermittent vibration or repeated shocks
- the existence of alternative equipment designed to reduce the levels of exposure to vibrations
- daily limits
- any extension of the exposure time
- any effects concerning the health of workers at particularly sensitive risk
- specific working conditions (e.g., low temperatures)
- any indirect effects resulting from the interaction between vibrations and other machinery
- the information gathered from scientific literature and/or provided by the machinery manufacturer.

We identify all sources of vibration from all work-related activities to identify a worker's "vibration exposure" and to protect workers from health problems such as neurological and circulatory disorders caused by hand-arm vibration. Furthermore, it is intended to act preventively against bone and joint disorders.

- Hand-arm vibration can damage blood vessels, nerves in the fingers, bones, and muscles.
- Long-term exposure to vibration can result in hand-arm vibration syndrome (HAVS), also known as "dead hand" or Raynaud's syndrome.

Two key factors influence susceptibility to HAVS

- Duration of exposure
- Vibration transmitted to the operator

6.36.2 WHO IS AT RISK?

The people most at risk of hand-arm vibration injury are those who regularly operate high-vibration equipment over extended periods of time.

6.36.3 WHAT ARE THE SYMPTOMS?

Exposure to excessive levels of vibration can cause a range of injuries collectively known as hand-arm vibration syndrome (HAVS), which has the following symptoms:

- "Pins and needles"
- Pain and numbness in the fingertips
- Reduced sensitivity of touch
- Painful wrists

6.36.4 USE THE CORRECT TOOLS FOR THE JOB

- Select tools with low vibration ("It works even if it doesn't shake you")
- Avoid the application of excessive pressure ("Let the tool do the work")
- Do not grip the tool too tightly
- Use sharp drill bits, chisels etc. to minimize vibration and maximize performance
- Consider alternative methods of doing the job, e.g.
- Diamond drilling instead of chiselling
- Direct fastening instead of drilling
- Consider job rotation!
- Use gloves and keep your hands warm to aid blood circulation

To assess a worker's exposure to hand-arm vibration, the directive defines two important values:

- The daily exposure action value $A(8)_{2.5}$, standardized to an 8-hour working period, is 2.5 m/s_2
- The daily exposure limit value $A(8)_5$, standardized to an 8-hour working period, is 5 m/s_2

These values are important for deciding whether an action is required and defining what action is to be taken by the company.

6.37 OFFICE SAFETY & SECURITY

Despite common beliefs that the office provides a safe environment in which to work, many hazards exist, which cause thousands of injuries and health problems each year among office workers. The leading types of disabling incidents that occur within the office are:

- Slips, trips, and falls.
- Strains and over-exertion.
- Being struck by or striking objects.
- Caught in or between objects.

Also, office workers are also injured as a result of foreign substances in the eye, spilled hot liquids, burns from fire, and electric shock. This section outlines the minimum standards for the protection of office workers.

6.37.1 RESPONSIBILITIES

Supervisors are responsible and accountable for assessing the office environment, identifying any existing or potential hazards, and controlling the hazards. Supervisors are also responsible for ensuring workers are aware of the hazards in the office and that steps are taken to reduce the risk to a level that is reasonable and practical for the work being done.

6.37.2 IMPLEMENTATION

General Office Safety

Workers are responsible for complying with office and other safety procedures and/or exercising sound judgement in their work practices. All office equipment shall be operated and maintained as required by the various laws, codes, regulations, or manufacturer instructions. Surprisingly, there appear to be more incidents in the "safe offices" than there are in industrial plants. While it is just as easy and just as dangerous to trip over an unclosed file drawer as it is to trip over an object left on a plant floor, office workers are less careful because they think that the office is an entirely safe place to work. However, there are many opportunities to become injured in an office setting. Some of these include back injuries from lifting, falling from chairs or stepladders; tripping over open drawers, cords, or objects on the floor; being pinched or cut on equipment and being cut by paper.

6.37.3 HOUSEKEEPING

Good housekeeping habits make work easier and conditions safer because the work area is clean, materials are correctly arranged, and used materials are properly disposed of.

- Place any shipping or packing materials in the proper garbage container.
- Store chemicals and flammables carefully. Ensure they are labelled and sealed in approved containers. Use WHMIS workplace labels if required.
- Put knives and shears away after use.
- Keep heavy cartons at floor level out of walkways.
- Store items in approved storage space. Take care not to stack boxes too high or too tight. Ensure that boxes are clearly labelled with their contents.
- Ensure that office lighting is adequate and available. Replace burned- out light bulbs, and have additional lighting installed, as necessary.
- Ensure that electrical and phone cords do not cross walkways or otherwise pose a tripping hazard. If you cannot move a cord, have a new outlet installed or secure the cord to the floor with cord covering strips. Do not tape cords down as a long-term solution or run them underneath the carpet.

- Report or repair tripping hazards such as defective tiles, boards, or carpet immediately.
- Clean spills and pick up fallen debris immediately. Even a loose pencil or paper clip could cause a serious falling injury.
- Keep office equipment, facilities, and machines in good condition.

6.37.4 PREVENTING STRESS

To reduce stress and prevent fatigue, it is crucial to take mini breaks (not many breaks) throughout the day. If possible, change tasks at least once every two hours. Stretch your arms, neck, and legs often if you do the same type of work for long periods of time. A tip for healthy eyes is to use the 20-20-20 rule. Every 20 minutes, look away from your monitor and stare at something 20 feet away for 20 seconds. An additional stress relief technique is to breathe deeply several times by inhaling through your nose and exhaling through your mouth. In addition, try to eat lunch somewhere other than your desk.

6.37.5 WORKSTATION ARRANGEMENT

With the extensive use of computers and other automated desk devices in the workplace, workers must take special care to ensure proper workstation arrangement. For the purpose of this manual, a workstation consists of the equipment and furniture associated with a typical desk job (i.e., desk, chair, and computer components).

Cumulative trauma disorders such as carpal tunnel syndrome may result from the stress of repetitive motion. Therefore, it is very important to arrange your workstation properly and to take breaks frequently.

By properly arranging your equipment, you can also help reduce the harmful effects of repetitive motion. Follow these guidelines for arranging office equipment:

- **Lighting:** Lighting around computer workstations should illuminate the work area without obscuring the VDT or causing glare. Position computer screens, draperies, blinds, and pictures to reduce glare during work hours.
- **Screen:** VDT images should be clear and well-defined. Adjust the screen's brightness, contrast, and display size to meet your needs. If a screen flickers or jumps, have it repaired or replaced. Place the screen 20-28 inches away from your face. The center of the VDT should be approximately 15 to 25 degrees below your line of vision.
- **Keyboards:** Position computer keyboards so that the angle between the forearm and upper arm is between 80 and 120 degrees. Place the keyboard in an area that is accessible and comfortable.
- **Wrist Support:** Use wrist supports made of padded material. The support should allow you to type without bending your wrists.
- **Document Holders:** Keep documents at approximately the same height and distance from your face as the VDT screen.
- **Telephones:** Neck tension is a common problem caused by holding the telephone between the head and neck. Use a headset or speakerphone if using the telephone for extended periods of time.

6.37.6 OFFICE SECURITY

Security around the workplace is everybody's business, and everyone has a part to play. All too often, we get wrapped up in the day-to-day business and security ends up being buried somewhere in the back of mind. The key is awareness, coupled with action on your part. Most security tips are common sense. Some may be a little inconvenient but can be worked around and implemented into daily routines.

Generally, security can be tightened up in two ways:

- Physical changes
- Procedural changes

Most concerns can be satisfactorily addressed by a combination of these two.

1. The physical layout of your office can either contribute to or hinder the chances of a criminal act taking place. Similarly, your office procedures and your own individual practices can have the same effect. The overall layout of your office should be examined. You should then also scrutinize your own individual workspace with security and safety in mind. General office procedures such as cash handling, key control, access control, opening and closing procedures should all be re-evaluated as well. Your own day-to-day practices should also be considered. Do you do anything that would leave yourself vulnerable to an attack, or do you leave your property vulnerable to theft or vandalism?
2. When examining the layout of your office or the office procedures, what exactly should you be looking for? The following are some tips to consider:
    - Access to your office should be limited and controlled. Ensure back doors are locked at all times and insist all delivery drivers check in with the receptionist first. Have the receptionist's desk strategically placed so that it is literally impossible for anyone to access your office without going through her/him first. Also, have photocopiers, computers, or any other office equipment to be used by the receptionist in plain view of the front door to enable continuous surveillance of this access point.
    - Establish and enforce strict procedures for allowing individuals past the front desk. Do not let strangers wander your hall alone. Check the identification of any service personnel and confirm with management that they are expected. Someone will know they are coming. Don't be fooled by well-dressed individuals or by individuals who throw around names. Con artists are good at what they do and have a wide variety of tools and techniques at their disposal. Do not vary from your established procedures.
    - If washrooms in your building are located out of your immediate office and can be accessed by the public, they should be kept locked at all times. The key can be kept with the receptionist. It is typical for individuals to hide in the washroom shortly before closing, giving them a free run of the premises when staff have left for the day. Many office breaks and enters occur this way. It is also possible for a culprit to hide in an unlocked washroom and attack an unsuspecting employee. Typically, washrooms are located "down the hall and to the right," secluded from the normal office activity, thereby leaving them somewhat vulnerable. All washrooms should be checked at closing time.
    - All employees should be instructed to challenge strangers. This includes people who may work in the building but do not belong on a certain floor or in a certain office area.
    - Restrict office keys to those who need them and keep a record of whom they are issued. Change locks if moving into a new office and make sure all keys are marked "Do Not Duplicate."
    - Look at your own immediate workspace. Is your office set up with you trapped behind a desk? Do customers or clients sit closer to the door than you? You should organize your office furniture so that you can escape should the need arise. Also, look at your desktop. Are there potential weapons present? Scissors, message spikes, vases. If a situation gets out of hand, anything can quickly be turned into a weapon and used against you. If your office has windows, keep the blinds open when interviewing someone. Other staff members and people on the street can monitor the situation and provide assistance if need be.

- Always keep purses in locked drawers and never leave your wallet in a jacket pocket, on a coat tree or chair back. More credit cards are stolen in the workplace than in any other location.
- Use the buddy system when travelling around the building or to the parkade. Phone ahead and let people know you are coming and let them know the route you plan to take. Don't get on an elevator if there is someone on it you don't feel good about. Wait for the next one. Always stand near the elevator control panel so you can get off on the next floor or sound the emergency alarm should you encounter a problem.

These are only a few of the tips you should be thinking about when examining your office security. Most are good common sense, but remember, if they are not practiced, they will not help. All employees must do their part to make it work.

6.37.7 POINTS TO REMEMBER

- Lock and secure your desk and office when away, even if it's for just a minute or so.
- Never leave handbags or wallets unattended. Take them with you or lock them away.
- If possible, when away from your work area, let a co-worker or close neighbor know about your departure and expected time of return.
- Always keep money in a safe place. Even if it is only a coffee fund, never leave it in an unlocked drawer. At night, put valuables in a safe or remove them from the building altogether.
- Lock computers, laptops & similar office equipment to the desk or tabletop with security devices.
- Keep a list of brand names, serial and model numbers descriptions of all office equipment in your work area.
- If you have to work late at night, avoid working alone. Keep all doors between you and the public closed and locked after-hours or when appropriate.
- When leaving work during the hours of darkness, use a buddy system to escort you to your vehicle.
- Be careful with keys. Always put them in a safe place and don't put spare keys for safes etc., in desk drawers. Do not mark keys with the access location.
- If you receive annoying or obscene phone calls, hang up. Write down the time of the call, the phone number of the caller if available, what the caller, said and notified your supervisor.
- Report all suspicious persons and/or activity to your supervisor
- Implementing a clean desk policy not only makes the sales force happy but also helps to focus staff on the day ahead while ensuring that security is kept in mind. Every stray piece of paper can carry a risk: usernames, passwords, IP addresses, customer names and phone numbers, all of which can be and should be considered confidential.
- Fasten vulnerable windows in your absence. It's easy to forget, particularly in the summer, and a thief can come and go in a couple of minutes.
- Never assume a stranger wandering in the building is a member of the staff or an authorized visitor. Challenge him/her. Even "Can I help you?" will often deter the dishonest.

6.38 PAINTING

Painting can occur at a variety of workplaces and face a constantly changing set of hazards. The hazards can include:

- Working at heights
- Ladders, platforms and scaffolds
- Working in confined spaces
- Risk of eye injury
- Slips, trips and falls
- Risk of injury from falling objects
- Exposure to paint products, solvents, lead and other toxic substances
- Proximity to flammable or combustible materials
- Working in awkward positions or performing repetitive physical tasks
- Standing for long periods of time
- Lifting heavy or awkward objects
- Noise.
- Stress.
- Electrical hazards from working close to live electrical power lines or equipment.
- Working alone.

6.38.1 GENERAL

- Check safety data sheet (SDS) of the paint or coating product for the selection and use of appropriate personal protective equipment and safe use of the product.
- Evaluate the work area for existing and potential hazards. Know the control measures of the identified hazards and associated risks.
- Learn the correct procedures for working at heights.
- Select the correct ladder for the job. Use extended handle paintbrush whenever possible and eliminate the use of ladders.
- Avoid awkward body positions and take breaks when needed.
- Learn safe lifting techniques.
- Know how to prevent injury from electrical hazards. Maintain safe distances from energized electrical equipment or utility lines.
- Keep tools and equipment, and their safety features, in good working order.
- Wear appropriate personal protective equipment and footwear.
- Keep work areas clear of clutter and equipment.
- Learn safety procedures for working in confined spaces.
- Maintain good ventilation during painting.

6.39 PLUMBING

Plumbers and those workers involved in plumbing tasks install, repair, and maintain plumbing fixtures or systems in businesses, industries, or residences. Tasks relating to plumbing may include:

- Haul supplies, measure, cut, shape, assemble and join various materials (such as pipes, fittings, fixtures) with various tools, servicing the water supply, waste disposal and heating systems.
- Use, clean, and maintain equipment.
- Read, prepare, or interpret blueprints/drawings.
- Conform with building codes and other regulations.
- Prepare cost estimates and documentation for clients.
- Supervise apprentices or other workers.

On a typical construction job, plumbers do the roughing in after the frame and roof of a new building are in place. In other words, they:

- study the building plans and specifications to determine the layout for the plumbing and other materials
- locate and mark the positions for connections and fixtures
- cut holes through walls and floors to accommodate pipes
- select the type and size of pipe required and measure, cut, thread, bend, clamp, solvent cement, or solder pipe
- assemble and install valves and fittings
- join pipe sections and secure them in position
- test pipe systems for leaks
- install underground storm sanitary and water piping system

6.39.1 PHYSICAL DEMANDS

- Plumbers may spend long hours outside and in awkward positions, which can cause physical discomfort and strain.
- The Plumber will be lifting and adjusting heavy objects and will come in contact with sharp, hot and/or very cold supplies and equipment.
- The Plumber must maintain safety procedures at all times to avoid injury.
- Plumbers may also come in contact with potential poisons and gases that could cause injury or illness.

6.39.2 ENVIRONMENTAL CONDITIONS

- Plumbers may work in busy construction sites with a variety of other trades and labourers or may spend long hours working alone.
- Plumbers may work in awkward environments and will have to carry all required equipment and supplies at all times.

6.39.3 SENSORY DEMANDS

Sensory demands include exposure to the smells associated with sewer and water, exposure to the sounds associated with power tools and construction sites, and exposure to dust and other debris associated with the use of power tools and construction sites, all of which can cause sensory strain including headaches.

6.39.4 MENTAL DEMANDS

Plumbers will need to concentrate on busy construction sites. They will be ordering equipment and supplies and scheduling work in cooperation with other trades and labourers. Plumbers may be called out at odd hours or have to work long hours in cases of emergency maintenance and repairs.

6.39.5 COMMON TOOLS UTILIZED FOR PLUMBING

Power Mitre Saw

- There is a high incidence of injury for those who use a 'chop saw.'
- Do not hurry when cutting; keep the downward motion smooth, and do not 'push' the blade through the wood, as this is unnecessary for effective cutting.
- Take time to check the area for any obstructions.
- Also, the placement of the guide hand must not be overlooked.
- Along with a power brake, this saw has a 'dead man' switch positioned just before the trigger, which, when depressed, shuts off the saw.

Drill Press

- Make sure that the bit is sharp before installing it.
- Do not leave the key in the chuck, and do not adjust the height of the drill press with a piece of wood.
- Take the time and effort to bend down and reach under to adjust the height of the platform.
- Clamp objects that could spin or move.

Oxyacetylene Cutting

The main dangers of oxyacetylene cutting are fire, burns, and toxic fumes. If a person feels dizzy or nauseated or has blurred vision, they should discontinue the job and get some fresh air.

6.39.6 PRECAUTIONS

- When using oxyacetylene torches, make sure that a multipurpose dry-chemical fire extinguisher is readily available and in working condition. It is recommended that an appropriate class of Fire Extinguisher is on hand of adequate size.
- When using a torch indoors, use it only in a well-ventilated place.
- Wear welding goggles and protective clothing, including gloves and welding shields. Keep gloves, hands, and clothing free of oil and grease. Wear gloves to handle hot metal.
- Avoid breathing toxic fumes like galvanized metal fumes and some paint fumes.
- Use a welding shield.
- Do not leave a burning torch unattended.
- Cut or weld at least 5 feet away from cylinders.
- Always use regulators; do not use oxygen or acetylene directly from cylinders. Be sure that the regulators used are of the proper design for the cylinder.
- Use flint lights, NOT MATCHES, for lighting the torch.
- Use hoses designated for oxygen and acetylene only.
- Do not use oil on regulators, torches, fittings, or any equipment surface that may come in contact with oxygen. Be especially careful not to oil or grease oxygen fittings. These substances will ignite with a violent explosion.

- Do not use compressed oxygen to clean off clothing, as compressed oxygen is not compressed air. Oxygen speeds up combustion, and if clothes become oxygen-soaked, they will need only a spark to burst into flames.
- Do not breathe compressed oxygen directly from the cylinder or hose.
- Use soap and paintbrushes to test connections for leaks.
- Do not use acetylene at pressures higher than 15 pounds per square inch (psi). Acetylene becomes unstable and highly explosive when pressure is over 15 psi.
- Do not cut or weld directly on gravel or concrete.
- Keep heat, flames, and sparks away from combustibles.
- Do not cut or weld on containers that have been used to store combustible materials unless containers have been properly cleaned and purged. Containers that fall into this category are ones that once contained nitrogen, carbon dioxide, or argon.

6.39.7 RESTRICTED SPACE

Workers must contact the supervisor before entering any of these areas. When travelling in isolated areas alone, Goose Mechanical Inc. must know your whereabouts at all times.

Utilize the Working Alone policy and procedure and tell the designated individual of your departure time, location, and expected time of return.

Hazards to Avoid

- Avoid any chemicals that you may find under sinks. Do not move the container; ask the resident to move it. Lay down mats to protect yourself against chemical burns.
- Beware of uncovered steam pipes. Consider any exposed steam pipe to be hot.
- Notify a supervisor of these pipes so they can be covered accordingly.
- Lighting is often inadequate.

6.39.8 HEATING

There are three types of heating:

- hot water,
- steam, and
- gas forced air.

These sources of energy are potentially dangerous. The hot water temperature is 82 degrees Celsius and can scald the skin; a steam leak can cause burns, and natural gas is highly combustible. You must be aware of the potential for an explosion. When working on pumps and motors, you will often be working in water. If boots such as hip waders are available, they should be worn.

After putting on the appropriate gear, be sure to lockout and de-energize the circuit prior to any work. Always carry a Meter even after the circuit is dead. There is always a possibility that the pump or motor is still energized.

If asbestos is encountered when performing work, discontinue work and report it to your supervisor immediately. Asbestos should not be disturbed. Only qualified, certified personnel may handle asbestos-containing materials.

6.39.9 VENTILATION & ROOF ACCESS

When accessing a roof, workers are to required to follow the limits of approach and safety precautions indicated in the Fall Protection Code of Practice and Working at Heights safe work practice.

The major concern of working with ventilation is fume hoods because of their previous contents. As a precaution, identify chemicals that have been sent up the hood. Be familiar with other hoods attached to the ducts.

Ventilation work is performed on rooftops, some with restricted access. Always be aware of your body position. If you must bring to the shop any potentially contaminated materials, for instance, a fan housing, and if decontamination is required, contact environmental services prior to transport or handling for a sample survey.

6.39.10 REFRIGERATION

The main safety hazards when working with refrigeration are Freon, electrical components, displaced oxygen levels due to large Freon leaks, and heavy components and equipment. Any hazardous condition encountered must be reported to your supervisor. When transferring large volumes of Freon (larger than 30 lb. container) and/or working in a confined space, oxygen detectors should be used.

Respiratory equipment (oxygen bottle and mask) should be readily available when working with, loading, or recovering Freon due to the hazard of phosgene gas, an odourless, green toxin.

Should a major Freon leak occur:

1. Evacuate the area immediately.
2. Call for emergency services.
3. Contact Environmental Spill Reporting Agency
4. Notify a supervisor.

6.40 POWER DRILL

AB OHS CODE PART 25

Power drills can be used for a number of jobs. Drills can be equipped with bits to accommodate a wide variety of projects, including drilling, cutting, grinding, and sanding.

6.40.1 DO'S & DONTS

Do:

- Read and follow the manufacturer's instructions and warning labels.
- Wear appropriate personal protective equipment such as safety footwear, safety glasses, hearing protection and respiratory protection.
- When unplugging equipment, pull on the plug, not on the cord.
- Keep power cords away from heat, water, and oil.
- Only use extension cords that are in good condition with proper grounding.
- Ensure that the work area is clear of debris.
- Use only bits that turn true.
- Unplug any broken or unsafe equipment, attach a warning tag, take it out-of-service, and advise your supervisor.
- Ensure there is adequate lighting in the work area.
- Use the drill, tool accessories, bits, and battery charger in accordance with the manufacturer's instructions and in the manner intended.
- Keep the drill's air vents clear to maintain adequate ventilation.

Do Not:

- wear gloves, loose clothing, jewellery, or long loose hair while operating a drill.
- remove the stock or any debris while the bit is spinning.
- place your hands under the material/stock being drilled.
- abuse the power cord. Never use the cord for carrying the drill.
- carry the drill with your finger on the trigger switch.
- use excessive force to push a drill bit into the stock.
- use a bent drill bit.
- use a hole saw without a pilot drill.
- exceed the manufacturer's recommended maximum drilling capacity.
- use power from the drill to tighten a keyless chuck; hand tighten only.
- use a drill if the switch does not turn it on and off.
- operate any equipment if you feel drowsy or unwell.
- use a drill that vibrates or appears unsafe in any way.
- operate a corded power drill while standing in water.

6.41 PRESSURE WASHER (PORTABLE)

High-pressure washing systems use a high-velocity stream of water to blast through materials, such as residue that collects inside pipes or vessels.

6.41.1 HAZARDS OF HIGH-PRESSURE WASHING

High-pressure washing equipment and processes present a variety of hazards to workers. Understanding the hazards is the first step in eliminating or reducing workers' exposure.

6.41.2 MUSCULOSKELETAL INJURY

High-pressure washing is challenging work. Workers are often required to work in awkward positions or confined spaces, to lift heavy tools or materials, and to work with high push/pull (reaction) force. Workplace conditions are often wet, and the walking surface can be covered in debris, creating slip/trip hazards. Where risk factors for musculoskeletal injury (MSI) have not been identified and controlled at the workplace, workers are at increased risk of suffering the effects of MSIs. Musculoskeletal injuries account for about 30% of all workplace injuries.

6.41.3 MACHINERY AND EQUIPMENT

Mechanical hazards are usually associated with power transmission parts consisting of belts, pulleys, chains, sprockets, gears, shafts, and couplings. The proper safeguarding of power transmission parts within and around a high-pressure pump is essential. The risk of contact with the moving parts of a high-pressure pump is often increased by the space limitations inside enclosed trucks or trailers.

6.41.4 PERSONAL PROTECTIVE EQUIPMENT

When performing any high-pressure washing activity, protect yourself from hazards by wearing the following personal protective equipment (PPE):

- CSA-approved safety eyewear or mono-goggles,
- CSA-approved face shield,
- Rain suit,
- CSA-approved safety footwear,
- Metatarsal protection,
- Hearing protection,
- Hand protection (rubber gloves), and
- Safety headgear.

When indicated in the hazard/risk assessment, additional personal protective equipment may be required. Safety garments specifically designed for high-pressure washing or to protect workers from exposure to chemical substances, heat, cold, noise, and so on may be required where other controls do not adequately protect workers.

6.41.5 GENERAL SAFETY PRECAUTIONS

- The object to be cleaned must not be hand-held or secured with the foot or another body part. Small objects must be securely fastened to a vice or similar tool.

- When hand lancing, the operator should always maintain a body position that affords the greatest control of the lance.
- Where multiple lance operators are cleaning in a restricted area, such as a pulp mill digester, a physical barrier should be installed, or safe work procedures developed to ensure that adequate spacing is maintained between the workers.
- Work areas must be maintained and cleared of debris to provide a firm footing for workers. Lighting and ventilation of confined spaces must be adequate to ensure that workers have good visibility and clean, respirable air.
- Reaction forces should be considered and regulated based on the ability of the worker to maintain control of the jetting gun. Where a higher reaction force is required, consider the use of mechanical devices to complete the task.
- Never use the jetting gun as a pry bar or in any other fashion that would place undue stress on any part of the gun.
- Never modify the jetting gun with shorter barrel lengths than originally equipped or with trigger devices. Only a manufacturer's authorized modifications are acceptable.
- Never leave a high-pressure system unattended. Always disengage the high-pressure pump when workers will not be in the immediate work area.
- Never point a jetting gun at anyone, whether under pressure or not.

6.42 RESTRICTED WORK AREAS

A Work Area will be designated as a "Restricted Area," where there is a danger of contact with energized electrical equipment or hazardous substance

6.42.1 PROTECTIVE MECHANISMS

- Safe work procedures.
- ERP (Emergency Response Plan).
- PPE.
- Permit system.
- Hydrocarbon monitors.
- Fire extinguishers.
- Barricades and warning signs.
- Lockout procedures.

6.42.2 RESPONSIBILITIES

Management & Supervisors:

- Managers are responsible for facilitating and/or provide proper instruction to their workers on protection requirements and training.
- Designate limits of the restricted area.
- Hazard analysis.
- Worksite inspection.

Worker:

- Establish and maintain clear exits.
- Have safety and emergency breathing air apparatus available.
- Place continuous gas monitors at strategic points.
- Place fire extinguishers at strategic points.
- Isolate system to be worked on.
- Purge system.
- Check for hydrocarbon leaks.
- Ensure no alternate power sources.
- Continually monitor the area for changing conditions.

6.43 RIGGING

AB OHS CODE PART 21

Each worker is responsible for recognizing lifting and rigging hazards and taking corrective measures to ensure that this practice is followed.

6.43.1 RESPONSIBILITIES

Management will ensure or designate someone to ensure:

- Emergency response plans are in place to address specific lifting and rigging hazards for the job at hand.
- That workers are trained and competent to operate the cranes and/or hoists or rig up for lifting
- All cranes, hoists and rigging equipment are appropriately labelled and inspected prior to work commencing.
- That safety devices installed on the lifting equipment are operational.
- All rigging is assembled, used, maintained, and dismantled under the supervision of a competent worker and in accordance with the manufacturer's specifications and instructions.
- Any worker who is required or permitted to assemble, use, maintain, or dismantle rigging is trained

Riggers will have:

- Knowledge of equipment.
- Experience with lift procedures.
- Working knowledge of relevant practices and codes.
- Ability to prepare and interpret the site and lift plans and drawings.
- Knowledge of hand signals.

6.43.2 BREAKING STRENGTH AND LOAD RATING

Rigging will not be subjected to a load of more than:

- 10 percent of the breaking strength of the weakest part of the rigging, if a worker is being raised or lowered,
- 20 percent of the ultimate breaking strength of the weakest part of the rigging, and
- if the rigging is fatigue rated and a worker is not being raised or lowered, the maximum load must not exceed 25 percent of the ultimate breaking strength.

Goose Mechanical Inc. may use a dedicated rigging assembly designed and certified for a particular lift or project by a professional engineer, but the dedicated rigging assembly must be re-rated before it is used for another lift or project. The maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, must be legibly and conspicuously marked on the rigging. If it is not practicable to mark the rigging, the employer must ensure the maximum load rating of the rigging is available to the workers at the worksite.

The maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, will be legibly and conspicuously marked on the rigging. Ways of marking the rigging will include one or more of the following:

- stamping, etching, embossing, printing, or tagging

When it is not practicable to mark the rigging, the maximum load rating will be available to the lifting supervisor, operator and the workers at the worksite.

6.43.3 PER-USE INSPECTION

Goose Mechanical Inc. will ensure that rigging to be used during a work shift is inspected thoroughly prior to each period of continuous use during the shift to ensure that the rigging is functional and safe.

6.43.4 ASME STANDARDS

Wire rope, alloy steel chain, synthetic fibre rope, metal mesh slings, and synthetic fibre slings will meet the requirements of ASME Standard B30.9-2006, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings (or current version). Goose Mechanical Inc. will ensure that below-the-hook lifting devices, other than slings, meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).

6.43.5 SAFETY LATCHES

If a hook is used in any circumstance during which dislodgement could injure workers, the hook will be replaced with:

- a hook with a safety latch
- an anchor-type shackle with a bolt, nut and retaining pin, or
- the hook must be —moused, i.e. a method of covering the throat opening of a hook by wrapping it with soft wire, rope, heavy tape or similar material

6.43.6 REJECTION CRITERIA

Goose Mechanical Inc. will ensure that a sling is permanently removed from service if it is damaged or worn. An employer must ensure that a worn, damaged, or deformed hook is permanently removed from service if the wear or damage exceeds the specifications allowed by the manufacturer. Where the dislodgment of a hook could injure a worker, Goose Mechanical Inc. will ensure that the hook is secured by a safety latch, mousing, shackle, or other effective means.

6.43.7 QUALIFIED RIGGERS

Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals authorized by Goose Mechanical Inc. for controlling hoisting operations.

Goose Mechanical Inc. senior site supervisor will be responsible for ensuring that all hoisting and rigging undertaken on their site are completed safely, properly and efficiently by competent, qualified personnel. Only one person shall act as a "lead signal person" in a hoisting situation. The rigging supervisor will ensure that all required documentation is completed.

Equipment operators must be qualified and certified as required under applicable Provincial Legislation and must provide current proof of such before being allowed to operate any hoisting machine on our sites.A competent individual shall be designated a "signal person" to assist and direct the equipment operator in achieving the safe completion of any hoisting task. This individual shall be readily identifiable (i.e. wearing a hi-visibility vest or gloves, or some other identifying means) and must remain focused on the task through to completion.

6.43.7.1 RIGGING INSPECTION & MAINTENANCE CHECKLIST

Rigging Inspection & Maintenance Checklist

Location: _____ Date: _____ Time: _____

☐ Inspection performed before use ☐ Inspection performed during use

Description: _____

Equipment ID: _____

Inspection			
1. Sling/Grommet/Fiber Sling:	☐ Yes ☐ No	**2. Shackle:**	☐ Yes ☐ No
- Damage if loops/corrosion/loop deformation?	☐ Yes ☐ No	- Capacity marks?	☐ Yes ☐ No
- Stitching?	☐ Yes ☐ No	- Bent or distorted pin &/or body?	☐ Yes ☐ No
- Cuts?	☐ Yes ☐ No	- Crack(s)?	☐ Yes ☐ No
- Damage of round sling cover?	☐ Yes ☐ No	- Body spread have original dimensions?	☐ Yes ☐ No
- Pollution?	☐ Yes ☐ No	- Reduction in diameter of pin &/or body by more than 10%	☐ Yes ☐ No
- Legible label present?	☐ Yes ☐ No	**3. Chain:**	☐ Yes ☐ No
- Reserve label present?	☐ Yes ☐ No	- Crack(s)?	☐ Yes ☐ No
- Broken wires more than 10% in a length of 8 x diameter?	☐ Yes ☐ No	- Bend &/or deformation?	☐ Yes ☐ No
- Severe abrasion or scraping?	☐ Yes ☐ No	**4. Hooks:**	☐ Yes ☐ No
- Evidence of heat damage?	☐ Yes ☐ No	- Cracks nicks or gouges?	☐ Yes ☐ No
A. Type:	☐ Yes ☐ No	- Twist exceeding 10% from plane of hook?	☐ Yes ☐ No
- Endless?	☐ Yes ☐ No	- Wear exceeding 10% or original dimension?	☐ Yes ☐ No
- Cracked sleeve?	☐ Yes ☐ No	- Throat opening exceeding 15%	☐ Yes ☐ No
B. Fitting:	☐ Yes ☐ No		☐ Yes ☐ No
- Damage of drawbar?	☐ Yes ☐ No		☐ Yes ☐ No
- Deformation of drawbar?	☐ Yes ☐ No		☐ Yes ☐ No

Deficiency	Corrective Action	Person Responsible	Target Date	Completion Date

Inspected By: _____ Signature: _____

6.44 SEASONAL WORK – HEAT & COLD STRESS

6.44.1 SCOPE

In some work situations, employees could be exposed to the elements for long periods of time.

6.44.2 FALL & WINTER

As the weather turns colder and the daylight lessens, all employees must be aware of the changing elements and dangers.

All employees must dress for the elements and still wear the proper PPE as required. Some suggestions for prolonged cold weather work:

- schedule regular rest breaks to allow workers to warm up.
- some form of the heated area should be provided- truck or coffee shop.
- warm fluids should be consumed at the worksite to provide energy, warmth and replace fluids lost during work. Dehydration in the cold is a serious concern, increasing the worker's susceptibility to hypothermia.
- workers should be under constant observation by a co-worker or supervisor. The work rate should not be high enough to produce sweating. If heavy work must be performed, rest periods in heated areas and the opportunity to change into dry clothing should be provided.

6.44.2.1 WIND CHILL FACTOR

Wind chill refers to the combined chilling effect of wind and temperature on humans. The wind chill factor can result from even a 15-km/hr wind. In essence, the wind chill factor combines the effects of the speed of the wind and air temperature into a number that indicates the danger of exposure. For example, a temperature of 5°C plus a 15-km/hr wind lowers the temperature below freezing.

It is important to note that 60% of body heat is lost through radiation from head, hands and feet. As the air temperature drops, the loss of heat through radiation increases. The wind chill effect is the same on a calm day with snowmobile or ATV moving at a rate of speed.

6.44.2.2 FROSTBITE

Frostbite is the freezing or the local effect of partial freezing of some part of the body. In the survey industry, with long hours working in the cold, frostbite is a very real concern. Frostbite can be superficial or deep. Superficial frostbite usually affects fingers, toes, ears and face. Deep frostbite is more severe, usually affecting an entire foot or hand.

Should frostbite occur, or an employee thinks frostbite may have occurred; there are things he/she should know:
A part of the body with frostbite may have these symptoms:

- white, yellow-white, or moulted blue colour to the skin
- cold, hard and non-responsive to pressure

Frostbite can lead to tissue damage that, in turn, can cause:

- vascular changes leading to gangrene.
- mechanical damage to cells by ice.
- dehydration of cells.

- denaturation of proteins.
- intra and extracellular biochemical changes.

Environment Canada Wind Chill Chart

	Actual Air Temperature (Celsius)											
Wind Speed Km/hour	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50
5	4	-2	-7	-13	-19	-24	-30	-36	-41	-47	-53	-58
10	3	-3	-9	-15	-21	-27	-33	-39	-45	-51	-57	-63
15	2	-4	-11	-17	-23	-29	-35	-41	--48	-54	-60	-66
20	1	-5	-12	-18	-24	-30	-37	-43	-49	-56	-62	-68
25	1	-6	-12	-19	-25	-32	-38	-44	-51	-57	-64	-70
30	0	-6	-13	-20	-26	-33	-39	-46	-52	-59	-65	-72
35	0	-7	-14	-20	-27	-33	-40	-47	-53	-60	-66	-73
40	-1	-7	-14	-21	-27	-34	-41	-48	-54	-61	-68	-74
45	-1	-8	-15	-21	-28	-35	-42	-48	-55	-68	-69	-75
50	-1	-18	-15	-22	-29	-35	-42	-49	-56	-63	-69	-76
55	-2	-8	-15	-22	-29	-36	-43	-50	-57	-63	-70	-77
60	-2	-9	-16	-23	-30	-36	-43	-50	-57	-64	-71	-78
65	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79
70	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-80
75	-3	-10	-17	-24	-31	-38	-45	-52	-59	-66	-73	-80
80	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81

Frostbite Guide

Low risk of frostbite for most people
Increasing risk of frostbite for most people within 30 minutes of exposure
High risk for most people in 5 to 10 minutes of exposure
High risk for most people in 2 to 5 minutes of exposure
High risk for most people in 2 minutes or less of exposure

How to treat frostbite:

- Gently remove any clothing covering the area.
- Change into dry, warm clothing.
- Slowly warm up the area by gently covering it with your hand.
- Use warm (not hot) water to warm affected body parts slowly.
- If your hand or fingers are frostbitten, place it in the opposite armpit to warm.
- Do not massage or rub snow on frostbitten skin.
- Seek medical advice immediately if your skin is white, waxy or feels numb.

Caution should be taken not to rapidly warm up the affected area until further refreezing is prevented. To avoid getting frostbite dress appropriately, try to cover as much skin that is exposed to the inclement weather as possible.

6.44.2.3 HYPOTHERMIA

The term "hypothermia" refers to a condition in which the body's core temperature falls below its normal 37°C (98.6°F). Sometimes called exposure, it usually develops in one of two ways:

- Acute Hypothermia occurs when an individual falls into cold water, subsequently losing body heat very quickly.
- Sub-Acute Hypothermia develops over a period of several hours, often involving a person working in a wet, windy environment.

In both cases, the lowering of temperature affects vital body systems, and a person becomes progressively less able to function. The first noticeable sign is excessive shivering, which is an attempt by the body to generate more heat. As hypothermia progresses, shivering becomes violent, spasmodic and then stops altogether.

6.44.3 SPRING & SUMMER

Heat

Heat stress is the overall heat load on the body, including environmental heat and inner body heat production due to working hard. Mild or moderate heat stress may be uncomfortable and may affect performance and safety. When heat stress is extreme, the possible health effects include:

- Heat edema is swelling, which generally occurs among people who are not acclimatized to working in hot conditions. Swelling is often most noticeable in the ankles.
- Heat rashes are tiny red spots on the skin, which cause a prickling sensation. The spots are the result of inflammation caused when sweat glands become plugged.
- Heat cramps are sharp pains in the muscles that occur alone or be combined with one of the other heat stress disorders. The cause is salt imbalance resulting from the failure to replace salt lost with sweat. Cramps most often occur when people drink large amounts of water without sufficient salt (electrolyte) replacement.
- Heat exhaustion is caused by excessive loss of water and salt. Symptoms include heavy sweating, weakness, dizziness, nausea, headache, diarrhea, muscle cramps.
- Heat syncope is heat-induced giddiness and fainting induced by a temporarily insufficient flow of blood to the brain while a person is standing. It occurs mostly among unacclimatized people. It is caused by the loss of body fluids through sweating, and by lowered blood pressure due to pooling of blood in the legs.
- Heatstroke and hyperpyrexia (elevated body temperature) are the most serious types of heat illnesses. Signs of heatstroke include body temperature often greater than 41°C, and complete or partial loss of consciousness. The signs of heat hyperpyrexia are similar except that the skin remains moist. Sweating is not a good symptom of heat stress as there are two types of heat stroke
    - "classical" where there is little or no sweating "exertional" where the body temperature rises because of strenuous exercise or work and sweating is usually present

When treating a heat stroke victim, take the following steps:

- Call Emergency Services.
- Move the victim to a cool, shaded area
- Cool the victim with the following methods:

- Shower, spray, or sponge with cool water
- Soak clothing with water
- Fanning

When treating heat exhaustion, do the following:

- Rest in an air-conditioned or shaded area
- Drink plenty of water or non-alcoholic beverage
- Take a cool shower or bath

To treat heat syncope, take these steps:

- Lie down or sit in a cool place as soon as symptoms appear
- Slowly drink cool water, a sports drink, or other non-alcoholic beverage

When treating heat cramps, do the following:

- Refrain from all activity
- Rest in a cool area
- Drink a sports beverage or clear juice
- Do not return to strenuous work for a few hours
- Seek medical attention if any of the following are relevant:
  - cramps have not subsided within one hour
  - the victim is on a low-sodium diet
  - the victim has heart problems

All Goose Mechanical Inc. workers must be aware of the potential for heat stress. When working outdoors in hot weather:

- A Goose Mechanical Inc. will ensure that an adequate supply of drinking water is available.
- Workers are encouraged to use sunscreen to protect from UV rays from the sun and prevent sunburns.
- Workers are encouraged to use mosquito repellants to protect from bites.

6.45 SLIPS, TRIPS, AND FALLS

In Canada, about 60,000 workers are injured on the job from slips, trips, and falls every year. This accounts for 15 percent of the lost-time injuries accepted by Workers' Compensation Boards (WCBs) across the country. Besides being a substantial financial loss, these injuries can cause people pain and suffering, and much too often, even death.

6.45.1 TOOLBOX TALKS

Goose Mechanical Inc. raises awareness of slips, trips, and falls in toolbox talks throughout the year. Topics of discussion include:

- Personal Protective Equipment: Footwear, traction aids, use, care, and maintenance.
- Mental and Physical Conditions.
- Housekeeping: standards and expectations.
- Slipping – tripping – falling: Causes and Prevention.

6.45.2 CAUSES OF SLIPS, TRIPS AND FALLS

Bumps and bruises, sprains and strains, tears, and broken bones—these are all injuries you can get from slips, trips, and falls. But some more serious injuries can occur as well, such as head injuries and impalement.

Causes	Prevention
Slips	
Slips happen when you do not have enough traction or friction between your boots and what you are walking on. Surfaces can vary, so expect a slippery or loose surface only a few strides away. Watch **for substances on surfaces that can make them slippery** such as • Frost or snow • Visible or black ice • Freshly waxed flooring • Oil or spills of any kind • Water or wetness, such as wet mud • Smooth, cold surfaces (e.g., cold metal stairs) **Look out for loose items on top of surfaces**—these can cause slipping hazards (e.g., loose, unanchored mats that can slide out from under you, and small-diameter gravel). Other factors that can cause slips are **poor lighting and lack of attention to hazards**.	Take your time and pay attention to where you are and where you are going. • Be aware of **lighting issues** such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours. • Create **temporary or permanent additional traction** by using traction aids or spreading sawdust to absorb liquids and provide traction, or by coating floors with paint embedded with sand. • **Replace floors, or use mats, pressure-sensitive abrasive strips, abrasive-filled paint-on coating, or metal or synthetic decking.** • If needed, wear **overshoes for better traction**—especially over grip less dress shoes. • **Shorten your stride** to suit walking surfaces and tasks. • **Point your feet outward slightly** for extra balance. • Make **wide turns at corners**. • Keep **one free hand** (a "hand for yourself") when you are using stairs, ladders, or ramps.

Trips	
Trips occur when your foot hits something in your way so that you lose your balance and fall. Watch for **uneven surfaces** such as • Wrinkled rugs or carpet • Frozen vehicle ruts • Uneven steps, thresholds, or slopes Look out for **things in your path** such as • Materials, tools, or clutter on the ground or floor • Uncovered cables • Low cabinet drawers left open • Narrow or short steps As with slips, some general factors contribute to trips: **lack of attention**, **poor lighting**, and any **obstructions that limit your line of vision**.	Take your time and pay attention to where you are and where you are going. • Be aware of **lighting issues** such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours. • Make sure anything you are carrying, pushing, or moving does not stop you from being able to **see tripping hazards**. • Use the engineered devices that help you keep your balance, such as **handrails** on stairs. • Ensure good Housekeeping. • **Point your feet outward slightly** for extra balance. • Keep **one free hand** (a "hand for yourself") when you are using stairs, ladders, or ramps.
Falls	
Since **falls from low elevations** or walking can cause serious injury and even death, **falls from higher elevations** can clearly be much more serious. The following situations may cause you to fall—whether it is a short distance while walking, or from relatively low elevations, or from higher up: • **Jumping** from a platform to the ground or **climbing** from equipment to the ground • **Falling off** the side or edge of an area of construction or through a wall opening • Stepping into a **floor hole,** you did not see • **Falling off**, or along with, an improvised stepping stool you are using for added reach • Unbalancing a ladder by **leaning** off it instead of getting down and moving it (These reaches are the source of most falls from short heights.)	Take your time and pay attention to where you are and where you are going. • Be aware of **lighting issues** such as poor light, blind spots, or shadows that hide objects. Also, schedule outdoor work during daylight hours. • Use the engineered devices that help you keep your balance, such as properly maintained and used **ladders and ramps**. • Use barriers such as **guardrails**, and warning devices such as **flagging tape**, for unprotected/ open sides, edges, wall openings, and floor holes. • Remember the importance of using **three-point contact** when you are getting in and out of vehicles and equipment or climbing ladders. **How do you prevent falls from higher up?** You will need to learn about freefall limits, clear fall paths, and total fall distance. You will also need to select appropriate personal protective equipment (PPE) and use it properly.

6.45.3 MENTAL AND PHYSICAL CONDITION

Mental impairment can be from fatigue, drinking alcohol or taking drugs—either illegal drugs or some over-the-counter medications. Mental impairment increases the likelihood that you will slip, trip, or fall. If your mental condition is impaired, your ability to notice and react to hazards is reduced. And any loss of mental focus, such as daydreaming about your new pay raise or what you are going to do next weekend, also takes your mind from your task.

If you are in good physical condition, you will have quicker reflexes and limber, toned muscles to help you keep or recover your balance. And if you fall, being in good condition will help you recover faster. This becomes even more important when you get older because, as you age, your ability to recover from an injury slows down. If you are an office worker, this still applies. Working in one place for long periods may reduce your ability to respond to a slip, trip, or fall and add to the severity of injuries. Basic stretching for mobility and flexibility can help protect you from injury.

6.45.4 HOUSEKEEPING

Poor housekeeping can cause injuries such as trips over loose objects; slips on greasy, wet, or dirty surfaces; impacts against projecting objects; and cuts or punctures on nails, wire, or steel strapping that is sticking out. Worksite housekeeping includes keeping work areas neat and orderly, maintaining unobstructed halls and floors, and removing waste from work areas. It should be an ongoing operation. The following must be done regularly:

- Mop or sweep debris from floors.
- Remove walkway obstacles and clutter.
- Secure mats, rugs, and carpets that do not lie flat.
- Regularly inspect, clean, and repair all tools and take any damaged or worn tools out of service.
- Close file cabinet or storage drawers.
- Cover cables that cross walkways.
- Clean up any spills immediately.
- Mark spills and wet areas, including just-cleaned floors.
- Keep working areas and walkways well lit.
- Replace burnt-out lights and faulty switches.

A fall can put you out of commission for a few minutes, a couple of hours, or the rest of your life. Most slips, trips and falls can be avoided if you recognize and avoid hazards.

When you have to work in wet or slippery conditions, it is essential to slow down and move deliberately. You need to be constantly aware of your footing and try to keep your distance from the operating equipment. Think ahead. If you were to fall, where would you land?

Always use extreme caution when working on icy or slippery surfaces.

6.46 SPRAY PAINTING

6.46.1 PURPOSE

Paint spraying equipment utilizes high pressures to propel liquid material onto the surface to be painted and can be potentially dangerous if miss used. Toxic material can be propelled with enough force to enter the body through the skin and is especially dangerous if the gun is aimed at the eyes. Fire and explosion can occur when spraying or flushing flammable fluid in an area where air circulation is poor and flammable vapours can be ignited by an open flame or sparks.

6.46.2 KEY PRACTICES

- Do not spray flammable materials indoors. Read the accompanying manufacturer's materials.
- Wear appropriate PPE, such as a respirator, as per your hazard assessment.
- Remove, extinguish, or unplug all ignition sources and tape wall switches.
- Ground the spray unit and solvent pails to prevent static electricity sparks.
- Hold gun firmly to the side of a grounded pail when triggering into a pail.
- Spray in a well-ventilated area with good air movement and use non-sparking fans.
- Proper clothing should be worn to prevent accidental contact of toxic material with the skin.
- Use eyewear that will prevent any contact of spray mists of direct sprays. When checking the spray tip for paint build-up or obstructions, disconnect the gun from the supply hose and do not aim the gun directly into your face.
- Fluid injection is a serious injury. If high-pressure fluid pierces your skin, get immediate medical attention.
- To help prevent injection injuries:
    - Use the trigger latch when not spraying.
    - Point gun away from you or anyone else.
    - Relieve pressure before checking or repairing any leaks.

6.47 SPOTTER & HAND SIGNALS

AB OHS CODE PART 19

6.47.1 SPOTTING VEHICLES

- Moving vehicles are a potential source of serious harm to people.
- Incidents associated with moving vehicles and equipment can cause costly damage.
- All workers are required by law to identify potential hazards in their work environment and to minimize the potential for harm by using controls that will reduce risk.

6.47.2 RESPONSIBILITIES

Driver:

- The driver is ultimately responsible for the safe operation and movement of the vehicle.
- Whenever possible, the vehicle shall be positioned so as to minimize movement in reverse.
- Extreme caution shall be exercised when moving a vehicle. Whenever possible, a guide should assist the driver.
- The driver takes direction and guidance from the guide.
- The guide must always be fully visible to the driver. If the guide is not fully visible, the driver must stop.
- Guides shall wear high-visibility clothing (e.g., reflective vest).
- Drivers shall not permit anyone to ride on the running boards, fenders, or any other part of the vehicle except on the seats provided.
- No one should cross or step behind a vehicle when the backup warning device is activated.
- Before moving a vehicle:
  - Plan a path that minimizes the need to drive in reverse.
  - Conduct a visual inspection of the desired path.
  - Identify potential hazards in the path of the vehicle, such as overhead lines, ruts, wellhead, or personnel.
  - Once you identify the hazards, assess the risk of harm, and implement control measures.
  - When backing up, drivers should do the following:
    - Use a guide whenever possible.
    - Stop backing up immediately under any of these conditions:
    - Resume backing up only after visual contact with the guide or workers on foot is restored and acknowledged.
    - Sound the horn before starting to move the vehicle.
    - Stop all vehicle movement while the guide is repositioning.

Guide/Spotter:

- Remain visible to the driver at all times.
- Wear high-visibility clothing.
- Establish and maintain eye contact with the driver.
- Position yourself to maintain as clear a view as possible of the intended path of the vehicle.
- Stay clear of the path of the vehicle.
- Never stand behind a reversing vehicle.
- Avoid walking backward.

- Use standard hand signals to communicate with the driver.
- Be sure that no one is riding on the outside of the vehicle before signalling to the driver to begin moving.
- Immediately signal to the driver to stop if any person or object enters the vehicle's intended path.
- Signal to the driver to stop if you must change position. Reposition, and when ready, signal to the driver to continue.
- Notify drivers or operators that you are the designated signaller and that they must not manoeuvre without your guidance. You are in control of the work through its completion.
- Stay alert to recognize and deal with dangerous situations.
- Know and use the standard signals for onsite traffic.
- Wear a reflective/high visibility vest for maximum visibility.
- Flashlights with orange cones are to be used at night to increase visibility.
- Understand the manoeuvring limitations of vehicles and equipment.
- Know driver and operator blind spots.
- Maintain eye contact and stand where you can see and be seen by the driver or operator.
- Make eye contact with the driver or operator before signalling or changing location.

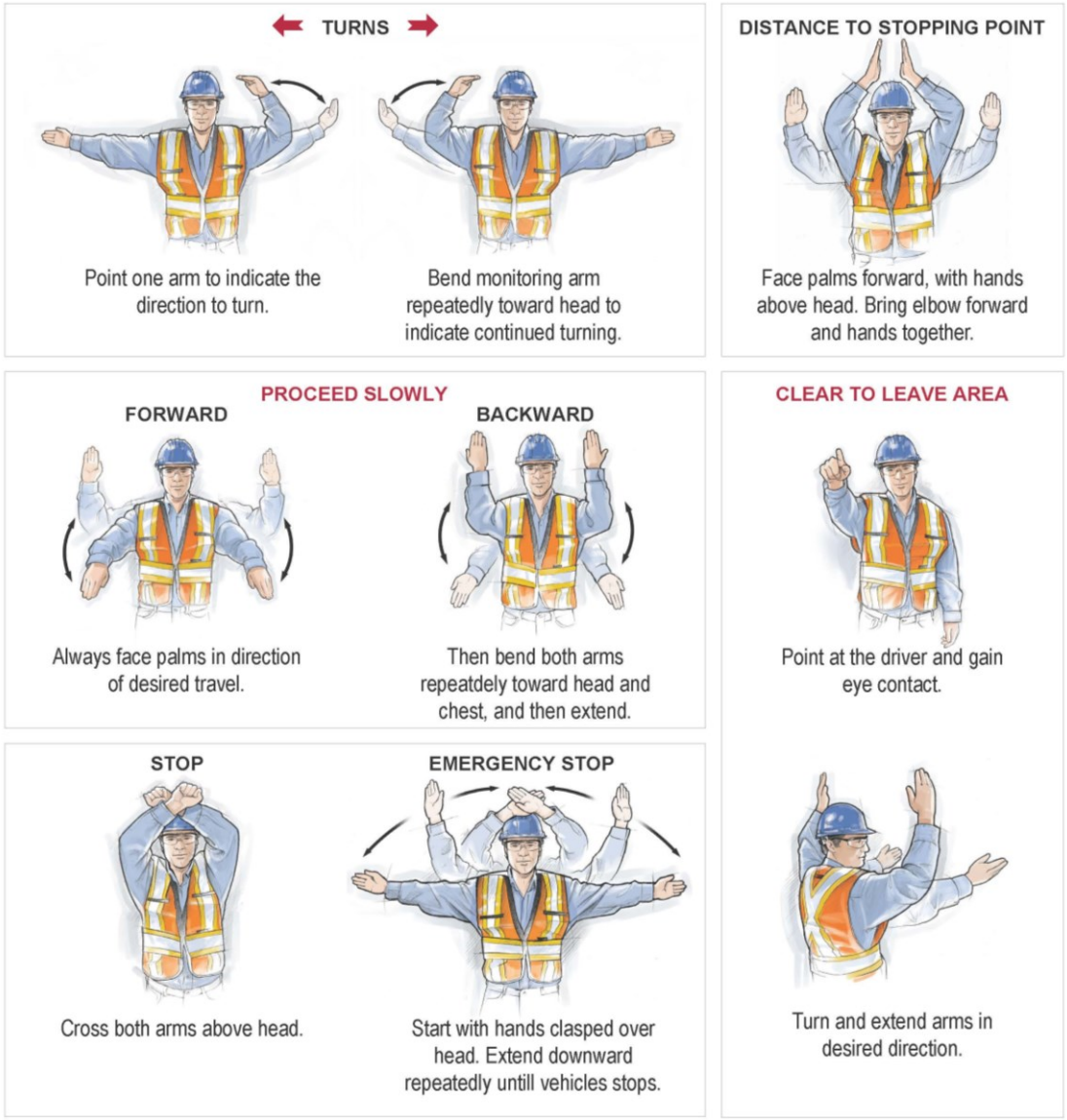
6.47.3 SPOTTING MOBILE EQUIPMENT

- Communication between operator and spotter (By hand signals or radio) is vital. If the Operator must verbally communicate with the spotter via the radio, the expectation is that the Operator will bring his equipment to a complete stop prior to keying the radio.
- The best practice is to find a clear channel to avoid radio chatter that will interfere with vital communications.
- The spotter must never get between an object, building other equipment, etc. and the machine they are spotting
- Operators must stop and warn the spotter if they are in a crush zone or pinch point and not continue operations until they are clear.
- If needed, the spotter can use a survey stake, delineator, or shovel to show the limits for the machine's encroachment this can often be easier for the operator to see as they are often focused on their cutting edge.
- As with any vehicle or equipment, each has its own different or unique "footprint" in regards to blind spots.
- Operators and spotters should be ever conscious of the blind spots on the piece of equipment that they are using.

6.47.4 WORKING AROUND FACILITIES

- Mechanized equipment shall remain at least 5.0 m (16 ft) away from any below-grade facility until the facility is positively identified to the view of the equipment operator or spotter.
- The spotter is to notify the operator if they are encroaching the 15 m (16 ft) of the underground utility line.
- If clear communication has been lost, work must stop until communication has been re-established.
- Once underground facilities have been identified with a Hydrovac, the spotter will place markings to identify 5m of encroachment of exposed facilities. The spotter will communicate to the operator the location of the markings.
- Mechanized equipment shall remain at least 5.0 m (16 ft) away from any stationary object live facility or wellhead unless a spotter is used. This "buffer zone" will be reduced to one metre (3.25 ft) with a spotter present.

6.47.5 HAND SIGNALS



6.47.6 OPERATOR RESPONSIBILITIES

- Always obey the signaller or spotter. If more than one person is signalling, stop your vehicle and determine which one to obey. In other words, know who your spotter is prior to starting the task.
- Review the common hand signals with your spotter prior to starting the task, make sure you are both on the same page.
- Make sure all mirrors are intact, functional, and properly adjusted for the best view.
- After leaving your equipment for any period of time, do a circle check when you return. Walk around the equipment to ensure the area is clear before you get into the cab and start moving.
- Stop the vehicle at once if your spotter disappears from view or an unclear signal is given.

6.48 VENTILATION

AB OHS CODE PART 26

If a mechanical ventilation system is chosen as a method of controlling worker exposure to a contaminant, dust or hazardous atmosphere, the system must meet certain minimum requirements for the design, maintenance and operation.

6.48.1 DESIGN

The design of a mechanical ventilation system depends on workplace conditions. These conditions include the types of substances and processes used and the design of the building. The requirement to design, install and maintain the mechanical ventilation system using established engineering principles allows us the flexibility to use equipment that best suits the conditions.

Factors that Goose Mechanical Inc. need to consider in the design, maintenance and installation of a ventilation system include the following:

- type of contaminant(s)
- concentration of contaminant(s)
- nature of the tasks being performed at the workplace
- location of equipment and workers at the workplace
- building ventilation systems already in place
- the layout of the building and specifics of the work area such as layout, equipment, furnishings, etc.
- location of ventilation exhausts and intakes
- physical parameters such as temperature, pressure and humidity at the workplace, the volume of make-up air required, etc.
- types and configurations of equipment, ducting and other components of the ventilation equipment, including fans.

Mechanical ventilation systems must be maintained and operated according to the manufacturer's specifications. This ensures that the systems provide a safe and healthy breathing environment for workers.

6.48.2 EXHAUSTED AIR RE-ENTERING THE WORKPLACE

One of the essential considerations in the design and operation of ventilation systems is to ensure that exhausted air does not re-enter the workplace, particularly if the purpose of the system is to remove contaminants. Issues to consider should include the location of exhausts relative to air intakes and existing and foreseeable air circulation patterns outside the building.

6.48.3 MAKE-UP AIR

An adequate volume of make-up air must be provided to ensure that the effectiveness of the ventilation system, or other ventilation systems in the building, is not compromised.

The design of the ventilation system must consider both the supply and exhaust systems. If the quantity of air exhausted from the work area is greater than the quantity of air supplied, the interior of the building will be at negative pressure. This will cause the uncontrolled entry of air into the building through cracks, walls, windows and doorways. This can reduce system performance, possibly leading to loss of contaminant control and a potential health hazard. If make-up air is not provided, ventilation system fans may be running without moving any air or removing contaminants.

6.48.4 RECIRCULATING SYSTEMS

If it is not practicable to exhaust a ventilation system to the outdoors, a recirculating air system may be needed. Examples of recirculating air systems include portable fume hoods used for welding, electrostatic precipitators and dust filters. If the air passing through the system must be recirculated back in the building, care must be taken to ensure that this does not result in an increased concentration of contaminants in other parts of the building.

For this reason, Goose Mechanical Inc. will ensure that the concentration of a contaminant exhausted from the recirculating system must not exceed, where reasonably practicable, 10 percent of its occupational exposure limit. If the system cannot be designed to reduce the exhausted contaminant's concentration to less than 10 percent of its occupational exposure limit, we must be able to provide reasonable justification.

6.48.5 WARNING WORKERS

If a mechanical ventilation system fails, a method of immediately warning and protecting workers must be in place. The warning system can be as simple as streamers of tissue paper attached to a fume hood or as sophisticated as audible alarms and warning lights. Any effective system can be utilized as long as workers understand the warning.

6.48.6 TRAINING

All workers will receive training in the procedures to minimize exposure and to utilize the training in assessing the health hazards associated with exposure. If safety equipment may be required, workers will receive training prior to commencing employment on the application, use, maintenance and limitation of the equipment or required personal protective equipment.

Workers that use or depend on the ventilation system for their health and safety must be trained to operate it properly and the procedures in the event of a malfunction. Workers will also be trained on the proper operation and manufacturer's specifications for maintenance.

6.49 WHMIS 2015

CANADA OHS REGULATION PART X
AB OHS CODE PART 29

The main components of WHMIS are hazard identification and product classification, labelling, safety data sheets, and worker education and training.

6.49.1 INVENTORY OF HAZARDOUS SUBSTANCES

The Hazardous Products Regulations set out specific hazard classification criteria. If a product covered by the Hazardous Products Act meets the criteria to be included in a hazard class or category, it is considered to be a "hazardous product." The WHMIS regulations cover all hazardous products used in the workplace, and a WHMIS program, including education and training, must be in place.

Goose Mechanical Inc. will keep and maintain a record of all hazardous substances that, in the workplace, are used, produced, handled, or stored for use in the workplace, and may either keep and maintain such a record in the workplace or keep and maintain a centralized record in respect of several workplaces, in one workplace.

6.49.2 WHMIS TRAINING

All workers who work with a hazardous product, or who may be exposed to a hazardous product as part of their work activities must be educated about the hazard information for these products. The hazard information should include the information received from the supplier, as well as any other information that Goose Mechanical Inc. is aware of about the use, storage and handling of each product.

Education and training will include all workers who:

- May be exposed to a hazardous product due to their work activities,
- Use, store, handle or dispose of a hazardous product,
- Supervise or manage workers who may be exposed, or use, store, handle or dispose of a hazardous product,
- May be involved in emergency response.

Goose Mechanical Inc. will, in consultation with the workplace committee or the health and safety representative, develop and implement an employee education program with respect to hazard prevention and control at the workplace. The employee education program will include:

- the instruction of each employee who is likely to handle or be exposed to a hazardous product with respect to:
    - the product identifier of the hazardous substance,
    - all hazard information disclosed by the supplier or by the employer on a safety data sheet or label,
    - all hazard information of which the employer is aware or ought reasonably to be aware,
    - previous exposure investigation results,
    - the information disclosed on a Safety Data Sheet (SDS) and the purpose and significance of that information, and
    - in respect of hazardous products in the workplace, the information required to be disclosed on a safety data sheet and on a label.

Refresher education and training will be provided by Goose Mechanical Inc.:

- As needed to protect the worker's health and safety,
- If conditions of the workplace have changed,
- If new products are introduced,
- If the products have changed and now have different hazards,
- When new hazard information becomes available, and
- If there is new information about safe use, handling, storage or disposal.

6.49.3 PRODUCT SUBSTITUTION

No person shall use a hazardous substance in a workplace where it is reasonably practicable to substitute a product that is not a hazardous product. Where a hazardous substance is to be used for any purpose in a workplace and an equivalent substance that is less hazardous is available to be used for that purpose, the equivalent product shall be substituted for the hazardous substance where reasonably practicable.

6.49.4 AIRBORNE HAZARDOUS SUBSTANCES

Goose Mechanical Inc. will ensure that all employees are kept free from exposure to a concentration of:

- an airborne chemical agent, other than grain dust or airborne chrysotile asbestos, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists, in its publication entitled Threshold Limit Values and Biological Exposure Indices, dated 1994-1995 (or current version);
- airborne grain dust in excess of 10 mg/m3; or
- airborne chrysotile asbestos in excess of one fibre per cubic centimetre.

6.49.5 WARNING AND DETECTION SYSTEMS

Where reasonably practicable, Goose Mechanical Inc. will provide automated warning and detection systems where the seriousness of any exposure to a hazardous substance so requires.

6.49.6 SDS FOR HAZARDOUS PRODUCTS

Safety Data Sheets (SDSs) are summary documents that provide information about the hazards of a product and advice about safety precautions. SDSs are usually written by the manufacturer or supplier of the product. In some circumstances, Goose Mechanical Inc. may be required to prepare an SDS (e.g., when the product is produced and used exclusively in that workplace). You can think of the SDS as having four main purposes. It provides information on:

- **Identification**: for the product and supplier.
- **Hazards:** physical (fire and reactivity) and health.
- **Prevention:** steps you can take to work safely, reduce or prevent exposure, or in an emergency.
- **Response:** appropriate responses in various situations (e.g., first-aid, fire, accidental release).

Where a hazardous product is received in the workplace Goose Mechanical Inc. will, without delay, obtain from the supplier of the hazardous substance a supplier SDS that

- is for a hazardous substance that has the same product identifier:
    - discloses information that is current at the time that the hazardous product is received; and
    - is updated when the supplier becomes aware of significant new data regarding the hazard presented.

6.49.7 SDS AVAILABILITY

Goose Mechanical Inc. will keep readily available for examination by employees and by the workplace committee or the health and safety representative in any workplace in which an employee may handle or be exposed to a hazardous product, a copy in English and in French of the SDS.

6.49.8 HAZARD STATEMENTS

Each hazard class and category has an assigned "hazard statement." Hazard statements are brief, standardized sentences that tell you more about the exact hazard of the product. The statements are short, but they describe the most significant hazards of the product. Examples of hazard statements are:

- Extremely flammable gas.
- It contains gas under pressure; may explode if heated.
- Fatal if inhaled.
- It causes eye irritation.
- May cause cancer.

6.49.9 PRECAUTIONARY STATEMENTS

Precautionary statements provide advice on how to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper storage or handling of a hazardous product. These statements can include instructions about the storage, handling, first aid, personal protective equipment and emergency measures. Like the hazard statements, the wording of precautionary statements is standardized and harmonized.

There are five types of precautionary statements:

- General
- Prevention
- Response (including first aid measures)
- Storage
- Disposal

Examples of precautionary statements are:

- Keep container tightly closed,
- Wear protective gloves/protective clothing/eye protection/face protection,
- If exposed or concerned: Get medical advice/attention,
- Fight fire remotely due to the risk of explosion,
- Protect from sunlight.

6.49.10 LABEL

6.49.10.1 SUPPLIER LABELS

Each hazardous product in a workplace and each container in which the hazardous product is contained in a workplace will, if the hazardous product or the container is received from a supplier, have applied to it a supplier label. When we place the hazardous product in a container other than the container in which it was received from the supplier, Goose Mechanical Inc. will apply to the container a workplace label.

Supplier labels must be written in English and French. They may be bilingual (as one label) or available as two labels (one each in English and French). The supplier label must include the following information:

1. **Product identifier** - the brand name, chemical name, common name, generic name or trade name of the hazardous product.
2. **Initial supplier identifier** – the name, address and telephone number of either the Canadian manufacturer or the importer.
3. **Pictograms** – hazard symbol within a red "square set on one of its points."
4. **Signal word** – a word used to alert the reader to a potential hazard and to indicate the severity of the hazard.
5. **Hazard statements** - standardized phrases that describe the nature of the hazard posed by a hazardous product.
6. **Precautionary statements**– standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.
7. **Supplemental label information** - some supplemental label information is required based on the classification of the product.

Labels will be required to be updated within 180 days of the supplier being aware of the new information. If you purchase a product within this 180-day time period, the supplier must inform Goose Mechanical Inc. of the changes, and the date they became available, in writing.

6.49.10.2 WORKPLACE LABEL

A workplace label is required when:

- a hazardous product is produced (made) at the workplace and used in that workplace,
- a hazardous product is decanted (e.g., transferred or poured) into another container, or
- a supplier label becomes lost or illegible (unreadable).

Goose Mechanical Inc. will place a workplace label that discloses the following information in respect of the hazardous product:

- the product identifier- matching the name of the SDS product name;
- the safe handling precautions and hazard information; and
- a statement indicating that a safety data sheet is available in the workplace.

6.49.10.3 HAZARDOUS WASTE LABEL

Where a hazardous product in a workplace is hazardous waste, Goose Mechanical Inc. will disclose the generic name and hazard information in respect of the hazardous product by:

- applying a label to the hazardous waste or its container, or
- posting a sign in a conspicuous place near the hazardous waste or its container.

6.49.10.4 USE AND CARE OF LABELS

Goose Mechanical Inc. will ensure that any labels will be legible and not defaced or removed from any hazardous chemicals.

6.49.11 HAZARD CLASS

Hazard classes are a way of grouping together products that have similar properties.

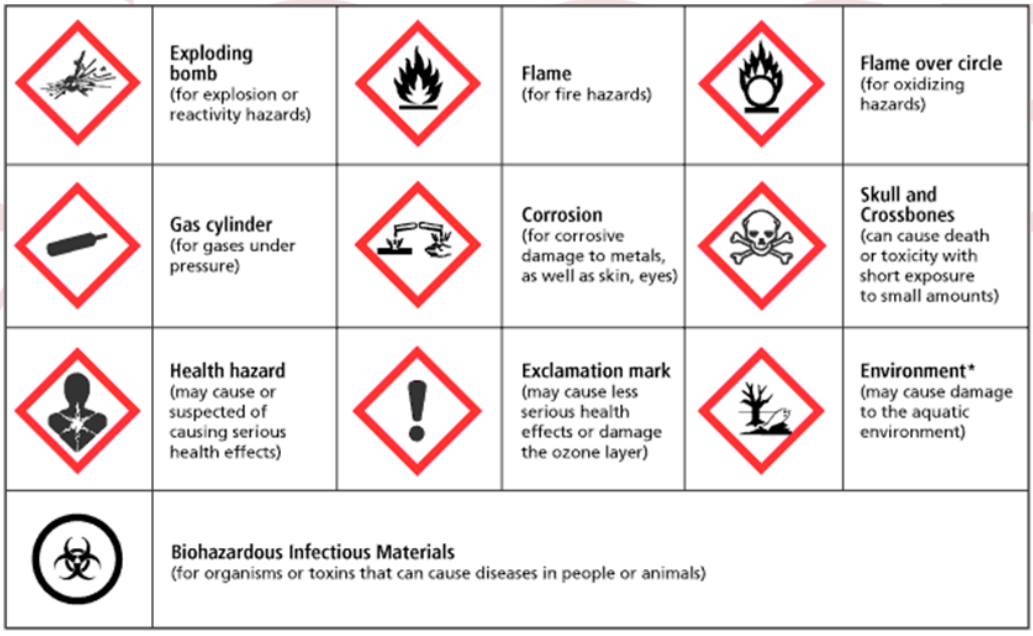
List of Hazard Classes

Physical Hazards	Health Hazards
Flammable gases or aerosols	Acute toxicity
Oxidizing gases, liquids or solids	Skin corrosion/irritation
Gases under pressure	Serious eye damage/eye irritation
Flammable liquids or solids	Respiratory or skin sensitization
Self-reactive substances and mixtures	Germ cell mutagenicity
Pyrophoric gases, liquids or solids	Carcinogenicity
Self-heating substances and mixtures	Reproductive toxicity
Substances/mixtures emit flammable gases when contact with water	Specific target organ toxicity
Organic peroxides	Aspiration hazard
Corrosive to metals	Biohazardous infectious materials
Combustible dust	Health hazards not otherwise classified
Simple asphyxiates	

6.49.12 PICTOGRAMS

Pictograms are graphic images that immediately show the user of a hazardous product what type of hazard is present. Most pictograms have a distinctive red "square set on one of its points" border. Inside this border is a symbol that represents the potential hazard (e.g., fire, health hazard, corrosive, etc.). Together, the symbol and the border are referred to as a pictogram. Pictograms are assigned to specific hazard classes or categories.

The graphic below shows hazard pictograms. The bold type is the name given to the pictogram; the words in the brackets describe the hazard.



6.50 WORKING ALONE

AB OHS CODE PART 28

6.50.1 DEFINITION

An employee is considered to be working alone if the employee works alone at a worksite in circumstances where assistance is not readily available when needed. Working alone applies when:

- a worker is working alone at a worksite,
- assistance is not readily available if there is an emergency or the worker is injured or ill.

6.50.2 WORKING ALONE HAZARDS

When a worker is required to work alone, Goose Mechanical Inc. shall first conduct a hazard assessment to identify existing or potential hazards arising from the conditions and circumstances of the worker's work and establish an effective means of communication between the worker and the persons capable of responding to the worker's needs.

6.50.3 STANDARD PROCEDURES

- **Reporting**
  - All incidents of working alone are considered **serious** and must be reported. The existing incident reporting process and report forms will be used. Reporting employees must not fear criticism, loss of privacy, penalties or judgement.
  - Report the incident to one or more of the following individuals:
    - Your immediate supervisor & Goose Mechanical Inc. management
- **Investigating**
  - Once a report is received, an investigation will be conducted immediately, and all appropriate and necessary actions will be taken to resolve the problem. The existing incident investigation process will be used.
- **Risk Assessment and Preventative Measures**
  - To effectively prevent the risks of working alone, a risk assessment will be conducted to determine workgroups that may incur exposure, the risk factors, and the measures to eliminate or minimize the risks. Determining the risk factors and prevention strategies, Goose Mechanical Inc. will reference:
  - Existing policies, systems, processes, procedures, statistics, managers and employees, and
  - Federal and Provincial Regulations and Codes.

6.50.4 CONTROL MEASURES

Goose Mechanical Inc. has developed the following control measures:

- Safety Manual
- ERP Visitation Process

6.50.5 TRAINING

Goose Mechanical Inc. ensures that all employees have the skills and training needed to perform their work safely. All employees are made aware of any dangers on the job site.

- Those employees who work alone are trained and competent to work safely.
- Make sure employees are aware of the increased risk of carrying out hazardous work alone.
- Upon approaching a worksite- **STOP, LOOK** and **LISTEN** to address the site conditions**. Never** go on a site where no one is present-- call and leave a message.
- Employees are to have training in emergency survival (i.e., bear awareness training) when travelling alone to remote locations.
- All employees are to be aware of what they are doing- **YOU HAVE THE RIGHT TO REFUSE.**

6.50.6 COMMUNICATION

Goose Mechanical Inc. will, for any worker working alone, provide an effective communication system consisting of:

- radio communication,
- landline or cellular telephone communication, or
- some other effective means of electronic communication that includes regular contact by the employer or designate at intervals appropriate to the nature of the hazard associated with the worker's work.

An alternate form of Communication:
If effective electronic communication is not practicable at the worksite, the employer must ensure that:

- the employer or designate visits the worker, or
- the worker contacts the employer or designates at intervals appropriate to the nature of the hazard associated with the worker's work.

6.50.7 SCHEDULE FOR WORKERS VISITING THOSE WHO WORK ALONE

These visits or contacts must be at intervals of time appropriate to the nature of the hazards associated with the worker's work.

6.50.8 BEFORE/AFTER BUSINESS HOURS

The following are safe work procedures for employees working alone before or after business hours.

- Let your supervisor/co-worker/spouse know you are working late and when you expect to leave. Provide them with the office/shop number so they can contact you.
- Use established check-in procedures, as described in driving vehicles.

6.50.9 MENTAL HEALTH

Working alone or remotely increases the risks to physical and psychological health in any job. Exposure to violence and poor access to emergency assistance are among the common hazards associated with remote or isolated work. A 'lone worker' is an employee that performs work activities in isolation and without close or direct supervision. This includes:

- Contractors.
- Self-employed people.
- And employees.

Impact on Mental Health:

Lone workers are at a higher risk of feeling isolated from everything. The feeling of loneliness arises as a result of extended periods of isolation and can be triggered by a variety of factors. For example, it could be down to:

- Lack of support and encouragement.
- Lack of comradery.
- Reduced contact with co-workers.
- Limited inclusion in team activities and outings.

While impacts may vary depending on your specific circumstances, a common issue experienced by most lone workers is an increase in stress levels which can go on to cause depression and anxiety. Mental stress causes the body to move into a fight or flight reaction, which releases adrenaline and cortisol, raises the heart rate, boosts glucose levels in the bloodstream and diverts energy from the immune system to other areas of the body.

When mental stress is prolonged, the body will not return to normal as easily, and many key body systems can be affected and may start to break down, causing major health problems.

6.50.10 SIGNS OF MENTAL STRESS

- Physical Signs
    - Some of the most common and visible signs are as follows:
        - Panic attacks - A panic attack can be an incredibly frightening experience, and several physical symptoms can happen all at once. Someone who is suffering a panic attack may begin to shake, sweat, struggle to breathe or experience a choking sensation. They may feel as if their heart is pounding at a rapid rate or that they can feel pain in their chest. This may cause them to feel as though they are having a heart attack or going to die. Panic attacks can be associated with mental health problems such as anxiety or panic disorders. These can be eased with professional help and/or medication, making day-to-day life much easier.
        - Fatigue - If you have noticed that a certain employee seems to be suffering from constant tiredness and seems unable to function to their full potential due to this, they could be experiencing fatigue and may benefit from support.
        - Appetite and weight changes - A sudden increase or decrease in weight, or appetite, could be a warning sign that an employee's wellbeing is suffering.
- Psychological Signs
    - Psychological signs can be more difficult to spot and, therefore may require you to be more attentive towards employee wellbeing in the workplace. These psychological signs can include:
        - Lapses in memory - Memory lapses can be one of the more noticeable psychological signs in a person and can often lead to confusion or disorientation.
        - Distraction and confusion - While it may be hard to spot these symptoms in your team, you may have concerns that one of your employees is suffering but paired with any other signs, it can signal that there is a mental health problem occurring.
        - Tearfulness - Noticing that a team member is tearful can signal problems in their personal life, or perhaps they may be suffering from stress or ill mental health. Regardless of the reason, they may benefit from someone to talk to or support from their co-workers.
- Behavioural Signs
    - Behavioural signs of someone struggling with mental health can be:

- Anger or aggression - Increased irritability or anger in an employee can be a tell-tale sign of anxiety or other disorders, especially if this is an employee who usually has a calm and collected personality.
- Risk-taking - If an employee has begun to take risks that seem out of character or appears to be making more impulsive decisions without thinking through the consequences, this can be an implication of bipolar disorder or schizophrenia. Disorders such as these will require the help and support of a professional.
- Increased absence - Notable increased absence in an employee may initially lead you to disciplinary action. However, before this, you may want to consider speaking to them to ensure they're not facing personal issues. Offering help and support to your staff may help to decrease absence if there is an underlying cause.

6.50.11 MENTAL STRESS REMEDIES / CONTROLS

Job resources can include:

- supervisor and co-worker support
- praise and recognition
- following fair and just process

In practice, preventing and managing stress in the workplace before it becomes a risk to health and safety may be achieved by:

- having senior management commitment to reducing workplace stress
- consulting with workers to create and promote a mentally healthy workplace culture
- ensuring the organization has appropriate policies and procedures in place, and workers are aware of these
- managing workplace psychosocial risk factors
- providing regular and respectful performance feedback
- providing training around managing workplace and individual stress levels.

6.50.12 RESPONSIBILITIES FOR LONE WORKERS

An employee's duty of care begins at the risk assessment stage. Employees need to assess the risks of being a lone worker and take steps to prevent or control them wherever they may arise.

Other responsibilities include:

- Consulting with workers when considering potential risks.
- Putting control measures in place.
- Taking steps to remove risks where possible.
- Regular review of risk assessments either periodically or after a change to work practices or location.
- It's worth noting, you're legally obligated to consult with your employees. This process allows them to effectively communicate their concerns on issues relating to their physical or mental health.

6.50.12.1 WORKING ALONE OR IN ISOLATION CONTACT FORM

Working Alone or in Isolation Contact Form

Employee: _____ Working Location: _____

Date: _____ Phone #: _____ Alternate Phone #: _____

Check-In Contact Person: _____ Supervisor: _____

Job Task: _____

The employee is to contact the Check-In Contact Person via the prescribed method, at the pre-determined check-in time(s):

☐ In Person ☐ By Phone ☐ Other: _____

☐ Every Hour ☐ Every 2 Hours ☐ Other: _____

Time	Contact Made	Comments / Employee Wellbeing
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
	☐	

In case of emergency, the Check-In Contact Person will contact:

Name/Agency	Phone	Name/Agency	Phone

Supervisor Signature: _____ Check-In Contact Person Signature: _____

6.51 WORKING FROM HOME

It is becoming more and more common for people to do at least some of their regular work from home or another location instead of going into the office. Technology has made it possible for a worker to stay at home but be connected to the office by telephone, computer, and internet. This type of arrangement is known by many terms, including telework, telecommuting, remote work, or working from home.

6.51.1 HAZARDS

Considerations need to be made included:

- workstation design and arrangement (ergonomics and home work environment)
- work scheduling and distribution
- working alone
- who will provide what items (e.g., chairs, desks, computer, monitor, office supplies, etc.)
- who will pay for utilities (e.g., hydro, water, home or cell phone, Internet, etc.)
- any impact to or from workers compensation and occupational health and safety laws

6.51.2 TIPS

A home office should meet the same health and safety requirements as those available at work where possible. For example:

- Follow proper ergonomic requirements
- Desk, chair and other accessories need to be of a comparable (equal) quality to that in the office. For example: the desk should be appropriate height and sturdy enough to handle the weight of any peripheral equipment that you may place on it (e.g., computers, printers, scanners, etc.).
- Your chair or workstation need to be adjusted properly: the keyboard is at the right height (wrists are in a neutral position), and the mouse is placed nearby (reachable without arm or wrist strain).
- The workspace is tidy and organized to reduce reaching and twisting motions and has been cleared of potential slip-trip-fall hazards.
- Lighting is properly arranged: there should not be reflections on or glare on the computer monitor, and light levels do not cause eye strain.
- Noise levels can be controlled, either by isolating the work area or using noise-cancelling headphones or hearing protection.

6.52 WORKING AT HEIGHTS

Where workers are required to work at heights or above hazardous areas unprotected by guard rails, they are required to wear fall protection or fall equipment to protect them from injuries or fatalities linked with falls.

6.52.1 PRE JOB PLANNING

- Fill out/ refer to the emergency response plan.
- A pre-hazard assessment is to be conducted in the work area prior to work commencing.
- Workers are trained in Fall Arrest/Fall Protection, use the buddy system for inspecting harness.
- A proper Fall Clearance formula is used. Anchor points are located directly above workers to prevent swing fall. Use proper lanyard for travel restraint or fall arrest.

DO NOT use two shock absorbers; an anchor on sharp edges that may cause cuts or fraying, allow cross gate loading, 3-way loading or gate over the edge or use fall arrest equipment for anything other than fall protection.

6.52.2 HAZARD

- Fall from heights
- Swing fall
- Suspension Trauma
- Inadequate anchor points
- Equipment Failure

6.52.3 PPE REQUIRED

- CSA approved hard hat
- Safety footwear
- Hi-visibility clothing
- Safety glasses
- Safety gloves
- Additional specialized PPE required:
  - Harness - CSA Approved
  - Lanyard and related gear - CSA Approved

6.52.4 STANDARD WORK PRACTICE

1. Fall arrest protection shall be utilized where there is or may be a danger to workers falling. NO person shall use fall protection devices until they have received adequate training.
2. Be fully conversant with the protection system.
3. Ensure you know the capabilities of fall protection equipment.
4. Ensure barricades, ribbons and signs spot restricted areas.
5. Ensure you understand the procedures for the rescue of workers who may be unable to rescue themselves from an elevated work area.
6. Ensure you know your anchor points.
7. Ensure you do not wrap the lanyards and/or rope around beams, girders, pipes, etc.

8. Utilize the buddy system and continually check each other's harness and D ring to ensure that the harness is not too lose and/ or the D ring has not slipped down the back.
9. Always check the manufacturer's specifications and instructions.
10. Report to your manager.
11. Hold harness by D-ring, shake harness to allow straps to fall into place.
12. Slip straps over shoulders so that D-ring is located in the middle of the back between shoulder blades.
13. Pull buckle portion of leg strap between legs and connect to opposite ends of the leg strap.
14. Connect chest strap and waist strap if present.
15. After all, straps are buckled, tighten webbing, so that harness fits snug but allows for a full range of motion.
16. The shoulder strap retainer (chest strap) must be positioned in mid-chest area 6"-8" below trachea, but not below the sternum. Fasten securely to keep shoulder straps taut.
17. To remove, use reverse procedure.
18. Use the buddy system to inspect fit and serviceability of harness.
19. Ensure anchor sling is wrapped on a secured point that is capable of sustaining the pressures of a fall.
20. Connect anchor sling to lanyard through properly rated carabineer.
21. Ensure the anchor point is located directly above the work area to avoid swing fall.
22. When finished with fall protection equipment, hang in a warm, dry area. Ensure equipment remains clean and usable. At the end of the day, turn back into issuing staff to ensure the inspection is documented.

7 Inspections & Maintenance

7.1 INSPECTION POLICY

7.1.1 PURPOSE

Inspections are an essential way to find out if day-to-day activities support the organization's overall health and safety goals. Inspections are intended to check for and report on specific things in the workplace and could include anything from how workers are doing their job to the equipment they are using. Inspections can identify hazards that may have been overlooked during hazard assessments. They can spot where controls introduced earlier might not be working. Or maybe the controls are working as intended, but new hazards have appeared as a result

7.1.2 SCOPE

This inspection policy applies to all company employees and applies to all work areas.

7.1.3 POLICY

To control unsafe working conditions in the workplace and to maintain the necessary records, Goose Mechanical Inc. will maintain a comprehensive program of safety inspections at all Goose Mechanical Inc. worksites.

- Inspections are to be completed by the use of an inspection checklist
- Every worker shall inspect their work area daily, correct hazards if possible, and report any hazard not corrected to Goose Mechanical Inc. management immediately.
- All worksites, equipment, tools, and work methods shall be included in the inspection program.
- Informal inspections shall involve the workers in their areas of responsibility on equipment and hazard control, and findings will be reported to management.
- Results of formal inspection reports shall be posted and include follow-up inspection results.
- Deficiencies found in inspections are corrected as soon as reasonably practicable and prioritized according to risk.

7.1.4 SCHEDULES & RESPONSIBILITIES

Inspection frequencies with responsibilities are listed in this section and cover off on all of the company's operations and positions within the company.

Senior Management **Date**

7.1.5 INSPECTION FREQUENCIES

Area/Activity/Equipment Requiring Inspection	Inspection Frequency	Assigned Responsibility	Required Forms
PPE - General	Before Use	Anyone utilizing PPE	Utilize *Field Level Hazard Assessment Form*
Fire Extinguishers	Monthly documented on fire extinguisher tags - 3rd party completed annually	All Levels of Workers	Documented on extinguisher tag, worksite, office, shop, yard and vehicle forms
First Aid Kits	At Minimum Quarterly	All Levels of Workers	Documented on worksite, office, shop, yard and vehicle forms
Tools	Pre-Use Inspection	Anyone utilizing Tools	Utilize *Field Level Hazard Assessment Form & Form Specific to the Tool being used.*

7.2 INSPECTION PROGRAM

Through regular inspections, Goose Mechanical Inc. can effectively monitor workplace conditions and work procedures. Inspections enable us to ensure worker safety, regulatory requirements, and due diligence standards are being met. Inspections also identify hazards before they become incidents by revealing where improvements to equipment, job procedures, and worker training are needed.

The result of these inspections provides us with a list of identified deficiencies and potential problems that require corrective measures. To ensure all workers support these measures, they should be involved in workplace inspections and decisions for corrective action.

Inspections are designed to acknowledge good, acceptable performances as well as unacceptable performances. Inspections will be conducted by a Goose Mechanical Inc. supervisor who has received proper training in the areas that they are inspecting.

Workers are expected to identify substandard conditions, work practices and at-risk behaviour and to initiate prompt corrective action.

Inspectors will receive appropriate written instructions, templates and checklists when conducting inspections. These will cover all work activities, work areas, equipment, materials, and specific hazards. Appropriate training will also be provided to all employees conducting inspections that are appropriate to what is being inspected. Training on inspections can range from documented on-the-job training, orientations, and third-party training.

7.2.1 TYPES OF INSPECTIONS

There are two types of inspections – Ongoing (Informal) Inspections and planned (formal inspections). Safety problems do not wait for scheduled reviews. Ongoing inspections are essential to keep small problems from developing into major ones. Often these problems can be corrected simply with a brief instruction; other situations require additional actions, which Goose Mechanical Inc. management will arrange and follow-up on (unplanned safety meetings and corrective action).

Workers are encouraged to notify a supervisor of any hazardous situations whenever they see them, who will take prompt corrective action in response to these concerns.

Informal inspections, however, are not enough. *Formal (planned) Inspections* will be conducted as indicated on the inspection frequency chart to provide a complete record of conditions in the workplace. To be effective, inspections need to be planned, conducted properly and followed up with appropriate corrective action. An inspection should serve several purposes:

- Identifying existing and potential hazards.
- Identifying safety code violations.
- Determining the underlying causes of hazards.
- Monitoring hazard controls.
- Determining corrective action to minimize or eliminate hazards.
- Reinforcing and supporting safe work practices.

A good inspection program is essential to maintain workplace safety. It is a fact-finding rather than a faultfinding exercise. It is designed as a regular part of Goose Mechanical Inc. Health & Safety and Maintenance Program, and proper records of all inspections are kept.

7.2.2 INSPECTION REPORTS

Inspection reports will identify hazards and recommend appropriate control measures such as:

- Performing maintenance on equipment and vehicles
- Marking hazards with signs, flags, lights, alarms, or barricades
- Providing additional personal protective or other safety equipment to workers; and
- Informing workers of the hazards.

Wherever possible, hazards will be eliminated. Other control measures will be used if this is not possible, such as developing specific operational procedures and/or wearing appropriate PPE.

7.2.3 FOLLOW-UP ACTION & DEFICIENCIES

Deficiencies that have been noted in any inspection must be followed up by Goose Mechanical Inc.. Any serious (high potential to cause injury) deficiencies must be repaired immediately. Corrective actions are to be identified, assigned to individuals, and target completion dates are to be put in place.

7.2.4 RESPONSIBILITIES

Management is responsible for:

- Enforcing the inspection schedule
- Ensuring any inspected deficiency is tagged out, put in a designated area, and not used until it has been repaired.
- Ensuring completion of corrective actions for hazards identified during inspections.
- Proper documentation of all inspections is completed and kept on file for a period of no less than 3 years.

Supervisors are responsibilities for:

- Directing formal or informal inspections
- Ensuring appropriate action is taken when problems occur in inspections
- Involve workers in the inspection process
- Ensure employees are trained in the inspection process
- Reviewing and signing off inspections

Workers are responsible for:

- Immediately reporting unsafe conditions, hazards and near misses to a supervisor.
- Conducting inspection checks to ensure everything is in safe working order.
- Tagging out any inspection deficiency and do not use until it has been repaired.
- Participating as requested in inspections and/or audits.

7.2.5 TRAINING

Any individuals completing or leading inspections will receive inspection training. The training will cover the pre-planning required, how to conduct the inspection, identification of hazards, assigning corrective action, follow-up and close-out of deficiencies identified as part of the inspection. Documentation will be in place to confirm attendance at training sessions and the content of the training.

7.2.6 GOVERNMENT INSPECTIONS

To ensure Goose Mechanical Inc. worksites and work practices comply with regulatory requirements, occupational health and safety inspectors can inspect our work sites. Government inspectors may assess records, plans, policies, equipment, or work procedures. The inspectors may interview anyone on the worksite, and they have the right to remove any item they need to inspect further. Anyone on the site at the time of the inspection must cooperate with government inspectors. If inspectors discover violations, they may issue stop-work orders if the violations present life-threatening conditions. Alternatively, they may issue orders to correct the violations or deficiencies.

7.3 WORKSITE SAFETY INSPECTION & OBSERVATION FORM

Worksite Safety Inspection & Observation

Location: _____ Date: _____ Inspected By: _____

Description of Work: _____

Suggested Items To Observe:

- Pre-job / Tailgate meetings held and documented
- WHMIS labels on storage containers, MSDS's
- Emergency Wash Facilities (eye wash & showers)
- Proper lifting practices followed, use of tag lines
- Fire protection equipment present & maintained
- Warning signs, labels
- Electrical wiring, cords
- Buildings, structures, windows, floors,doors, stairs
- Guards in place
- Atmosphere testing (documented)
- Housekeeping, clutter, trip hazards
- Adequate lighting
- Scaffolds tagged
- Ladders tied off
- Hand & power tools general condition
- Exits, alarms, emergency lighting
- Procedures or Tasks being done properly
- Spotters for backing up vehicles/equipment
- PPE worn & in good condition
- Equipped locked out and or isolated

Priority Hazard Classification: (classification (1), (2) and (3) require follow-up action)

(1) Immediate Danger (2) Serious (3) Minor (4) Positive Safety Observation

Item	Observation	Priority	Corrective Actions to be taken	Person Responsible for Corrective Actions	Expected Completion Date	Completion Action Date & Verified by
1						
2						
3						
4						
5						
6						

Inspectors Comments: _____

_____

_____

☐ Copy Posted on Safety Board

Manager Signature: _____ Date Inspection Reviewed: _____

7.4 OFFICE INSPECTION FORM

Office Inspection Checklist

Date: _____ Inspector: _____

Emergency/Fire/Hazards	Yes	No	N/A	Comments
Are aisles/doorways/entrances unobstructed and allow for visibility and movement?	☐	☐	☐	
Safety Manual, SDS information and OH&S Legislation are easily accessible by all staff?	☐	☐	☐	
Are Emergency procedures and evacuation plans current & clearly posted?	☐	☐	☐	
Are emergency exits/first aid kits/fire extinguishers in good condition and easily accessible?	☐	☐	☐	
Are materials neatly and safely piled/stored?	☐	☐	☐	
Has any worn or damaged office furniture been removed?	☐	☐	☐	
Good ergonomics throughout the office. (Keyboard elevation, chair adjustment, ect.)?	☐	☐	☐	
Are areas suitably lit?	☐	☐	☐	
Have burnt out bulbs been removed or replaced?	☐	☐	☐	

Corrective Action Needed	Assigned to	Target Date	Completion Date

Review Signature: _____ Date: _____

7.5 MOBILE EQUIPMENT INSPECTION FORM

Equipment Inspection

Equipment Details: _____ Unit #: _____

Date: _____ Inspector: _____

Item	Checked	Comments
Engine Oil & Filter	☐	
Fuel Filter	☐	
Air Filter	☐	
Hydraulic Filter	☐	
Hydraulic Fluid Level	☐	
Coolant Fluid	☐	
Coolant/Antifreeze	☐	
Final Drive Level	☐	
Belts & Hoses	☐	
Hydraulic Hoses	☐	
Steering Components	☐	
Fan	☐	
Battery Connection	☐	
U-joints Drive Line	☐	
Tires	☐	
Differential Oil Level	☐	
Lights	☐	
Horn	☐	
Fire Extinguisher	☐	
Gauges	☐	
Windows	☐	
Wiper Blades	☐	
Bucket Pins	☐	
	☐	

Deficiency	Corrective Action	Person Responsible	Target Date	Completion Date

Signature of Inspector: _____

7.6 MAINTENANCE PROGRAM

Preventative maintenance allows weaknesses to be corrected before becoming problems. Through preventative maintenance, incidents can be prevented, and equipment life can be extended. All tools, equipment, machinery, and vehicles shall be properly maintained, and all records on maintenance will be kept by Goose Mechanical Inc..

Goose Mechanical Inc. maintains all tools, vehicles, and equipment in a condition that will maximize the safety of all workers. To accomplish this, a Preventative Maintenance Program shall be maintained and shall include the following components:

- Adherence to applicable regulations, standards, and manufacturer's specifications.
- Services of appropriately qualified maintenance personnel.
- Scheduling and documentation of all maintenance work. Maintenance will be documented

7.6.1 RESPONSIBILITIES

Management & Supervisors

All Management and supervisors shall ensure that a qualified person according to established schedules carries out all preventative maintenance and that records are maintained.

Workers

All workers shall check all tools and equipment that they are working with and shall take out of service any tools or equipment that poses a hazard due to a need for repair.

7.6.2 REMOVAL FROM SERVICE

Defects observed in tools, machinery, vehicles, or equipment shall be reported to Goose Mechanical Inc. management and must be repaired or replaced before being used again.

7.6.3 VEHICLES

When using a vehicle, daily visual pre-use inspections are to be carried out by the worker responsible for the vehicle. Any defects noted during the pre-use inspections are to be documented and reported to management. Service work is to be done by qualified personnel, with records maintained by Goose Mechanical Inc..

7.6.4 TOOLS, EQUIPMENT AND MACHINERY

All workers shall ensure that the tools, equipment, and machinery, they are working with are checked daily prior to use to ensure that they are maintained and in safe working condition. If a tool or piece of equipment is found to be defective, then it is to be taken out of use, and lockout/tag-out labelled, to reduce risk of injury to workers.

7.6.5 MAINTENANCE

All maintenance is to be completed by a competent person and will be repaired/replaced before returning it to service. Goose Mechanical Inc. will ensure that any paperwork on any piece of equipment is maintained for the lifetime of the piece of equipment.

7.6.6 EQUIPMENT INVENTORY

Goose Mechanical Inc. owns a number of pieces of equipment, and tools that are tracked on an equipment Inventory list. A copy of this inventory list can be obtained from Goose Mechanical Inc. management. The inventory also includes the schedule of required preventative maintenance, ensuring that it meets legislative and manufacturer requirements.

7.6.7 OUT OF SERVICE

Defective equipment and tools will be taken out of services. This will include any types of defective equipment including vehicles, facilities and tools that are removed from service or repair. Refer to the companies lock out procedure.

7.6.8 PREVENTATIVE MAINTENANCE SCHEDULE

Type of Equipment	Type of Inspection	Schedule
Equipment	Complete Formal Inspection	• When required
	Preventative Maintenance	• As per manufacturer specifications
	Repair / Service	• When failure occurs, and/or as per manufacturer specifications
Hand Tools/Power Tools	Visual Inspection	• Initially and daily / before each use
	Repair / Service	• When failure occurs, and/or as per manufacturer specifications
Office Equipment & Tools	Complete Visual inspection	• Daily Visual inspection before use
	Repair / Service	• When failure occurs, and/or as per manufacturer specifications
Fire Extinguishers	Visual Inspection	• Monthly
	Certification	• Annually, or after discharged
PPE- Basic & Specialized	Complete Inspection	• Daily visual before use, • As per manufacturer specifications.

8 Emergency Response

8.1 EMERGENCY RESPONSE POLICY

Goose Mechanical Inc. will ensure that we have plans in place to deal with emergencies particular to the types of hazards identified at the workplace. Affected workers must be involved when establishing the emergency response plan and Goose Mechanical Inc. will ensure that the emergency response plan is kept current.

This information is to prevent confusion during an emergency situation; emergency procedures will also be documented and available to workers. Management has the accountability for emergency preparedness to ensure that emergency response plans are in place and that the appropriate resources are available to handle emergency situations at Goose Mechanical Inc. worksites.

Goose Mechanical Inc. is responsible for implementing the emergency response plan and confirm that all workers are familiar with the plan. It is policy that all workers are to be aware of the action required in the emergency response plans, but in the event of an emergency, they should follow the instructions of a supervisor.

Goose Mechanical Inc. will require all emergency response plans to be tested (Emergency Response Drill), a minimum of once annually. Identified deficiencies in the emergency response plans will be corrected immediately upon discovery.

Goose Mechanical Inc. will ensure an emergency response plan is available and follows the guidelines set out provincial *OHS* in regard to first aid and emergency response. The emergency response plans (ERPs) will include the following:

- Identification of potential emergencies.
- Procedures for dealing with identified emergencies.
- The identification of, location of, and operational procedures for emergency equipment.
- Emergency response training requirements.
- Location and use of emergency facilities.
- Fire protection requirements.
- Alarm and emergency communication requirements.
- First aid services required.
- Procedures for rescue and evacuation.
- Designated rescue and evacuation workers.

Senior Management **Date**

8.2 EMERGENCY RESPONSE PLAN

8.2.1 PURPOSE

The purpose of an emergency response plan (ERP) is to ensure a rapid recovery from a serious incident or harmful event. In the event that an emergency situation occurs on the worksite, it is essential to be familiar with how to respond to the emergency.

8.2.2 GENERAL

The emergency response plan (ERP) will address the emergencies identified in the worksite hazard assessment. Specified in the ERP are the followed procedures in the emergency event and the personnel involved in the emergency response. All affected workers must be made aware of the plan and be familiar with the procedures.

Goose Mechanical Inc. will ensure the ERP meets all legislative requirements, as outlined in the Emergency Response Policy. All emergency preparedness information will be readily available, and workers are given worksite orientation to ensure they are aware of:

- Location of emergency equipment:
  - First Aid Supplies.
  - Fire Extinguishers.
  - Eyewash Station.
  - Rescue Equipment.
- Location of a communication device and contact numbers for contacting outside assistance.
- Location of SDS sheets.
- Escape route and muster point.
- Emergency phone numbers.

Goose Mechanical Inc. has identified a number of situations, which would call for the use of an emergency response plan. These situations are listed in this section with scenarios and procedures. All employees will be responsible for ensuring that proper emergency response plans are followed. To ensure this, training and informing the employees of the procedures will consist of verbally reviewing the ERPs during orientation.

The primary objective for implementing an emergency response plan is to ensure the safety of the employees and contractors/visitors to the site at all times during an emergency situation. In addition, the plan must also:

- Reduce the potential for causing property damage or further losses from operation stoppage.
- Assist response personnel to determine and perform remedial actions quickly and effectively.
- Reduce any effect on the environment.
- Reduce recovery times and costs.
- Create confidence in the response of personnel.

8.2.3 EMERGENCY RESPONSE DRILLS

To ensure employees understand and are able to respond safely, emergency situation practice drills will be conducted at least once per year. These drills will be used to identify any deficiencies in the program and any corrective action(s) required to rectify the deficiency.

A written report will be completed immediately following any drill. The documentation will provide information as to the date and time of the drill, any deficiencies observed, and the corrective action(s) necessary as a result. This information will be kept on file to serve as documentation that the drill occurred.

8.2.4 DEFINITION OF AN EMERGENCY

An emergency is defined as any unexpected, unplanned event which could result in serious injury, loss of life, property damage, environmental damage and that demands immediate action.

8.2.5 EMERGENCY REPORTING

- It is the responsibility of every employee to report all situations that occur to their immediate supervisor.
- Evacuations of the facility will be directed and controlled by the managers on site.
- The managers and First Aid responders are responsible for ensuring the scene are controlled and appropriate emergency services are contacted if an outside source is required.
- Employees are not to re-enter an evacuated area until directed by a manager. If a rescue is required to leave it to the professionals, do not become another victim.

8.2.6 TRAINING

All employees will be trained in what to do should a specific emergency situation occur. Training includes basic emergency response information (e.g., alarms, muster points, emergency exits) as part of the new worker safety orientation and staff assigned specific emergency response duties also are to receive specialized training, they need to ensure they are competent to perform their assigned tasks.

A fire warden has been assigned and is identified in the location emergency response plan. Training will be provided to the fire warden on how to coordinate the evacuation, including during mock fire drill practices.

8.3 EMERGENCY RESPONSE ACTION GUIDELINES

8.3.1 CONFINED SPACE (NON-ENTRY)

In the event of a confined space entrapment, the following procedures are to be followed:

1. Sound the alarm.
2. Confined Space Attendant will notify emergency response and advise of:
    a. Particulars on the confined space itself,
    b. How long the individual has been down for,
    c. Whether there are any known injuries at the time (i.e. the individual is conscious, etc.)
    d. If there is communication with the trapped individual,
    e. Whether any hazardous gases have been identified in or around the space, and
    f. Details on gas monitoring (if applicable).
3. The attendant is not to enter a confined space at any time.
4. The attendant shall make all efforts to identify the hazard and try to establish a reason for the emergency.
5. The attendant shall contact management and/or supervisor to advise of the emergency.
6. Once emergency services arrive as much information about the confined space and individual trapped is to be communicated to personnel.
7. The attendant is to follow instructions of emergency personnel and assist if and when instructed to do so.
8. An incident report is required upon completion of the rescue operation.

8.3.2 ELECTRICAL SHOCK

1. All power sources should be shut off immediately.
    a. DO NOT ATTEMPT TO REMOVE THE VICTIM FROM THE CURRENT UNTIL POWER SOURCE IS SHUT OFF!
2. Once the victim has been removed from the source of electricity, appropriate first aid should be given, and EMS contacted.
    a. Do not leave the casualty alone but continue necessary first aid treatment until paramedics arrive.
    b. In many electrical accidents, the injuries are not only from electrical shock but from the effects of the burns.
    c. These should be treated in accordance with the instructions in First Aid.
    d. Person should be taken to a doctor or emergency facility.

8.3.3 GAS LEAK

Upon smelling or noticing a gas leak or unusual vapours:

- Pull fire alarm (if present) or sound warning and evacuate the premises via the nearest exit.
- Proceed to the Emergency Assembly Area.
- Contact local emergency response personnel by phone or radio.
- Re-enter only after the Emergency Coordinator has given an ALL CLEAR.

If employees are required to control a release of a hazardous substance, or to carry out testing before re-entry, Goose Mechanical Inc. shall provide:

- Adequate written safe work procedures and documented training.

- Appropriate personal protective equipment which is readily available to employees and is adequately maintained.
- Material or equipment necessary for the control and disposal of hazardous substance.

8.3.4 MAJOR WEATHER ACTIVITY

8.3.4.1 TORNADOS

Tornados frequently occur throughout the Prairie Provinces. They have the capability to destroy buildings and equipment and cause serious or fatal injuries. By following certain procedures, the danger can be minimized. Tornados are very unpredictable and can cause untold damage to people and property.

A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one mile wide and 50 miles long.

Things to do in the case of a tornado:

- Be weather alert. Understand weather signs, keep an eye on the sky and monitor Environment Canada weather watches and warnings. Tornadoes can develop very rapidly.
- When a tornado threatens, take shelter immediately, preferably in the basement or lower level of a sturdy building at the center of the structure.
- Tornado winds that find their way into a building through open doors and windows can lead to large internal pressures and greater damage. When a watch is issued, that is the time to ensure all doors and windows are closed.
- Try to gather everyone in an interior room of any onsite building. Bring an accessible, working communication device and, if possible, a First Aid Kit.
- Complete a headcount to ensure all workers and visitors are accounted for.
- If caught outdoors with no shelter available, lie flat in a ditch, ravine or other low-lying area and shield your head with your arms.
- If outdoors and unable to get to shelter, try to gather all workers in one area.
- Never try to out drive a tornado. They can change direction very quickly and have the ability to lift and toss a vehicle easily. Get out of the vehicle and take shelter in a building or ditch away from the vehicle.
- Flying glass and other debris pose the greatest danger to human safety.
- Wait for the ALL CLEAR to be given before leaving the area.

8.3.4.2 LIGHTNING STORMS

The first and most important thing to remember is that if you can hear thunder, you are within striking distance of lightning. Take shelter immediately, preferably in a building or all-metal automobile (not the convertible top). Remember to shut down all equipment prior to departing from the area.

If caught outside far from a safe shelter, stay away from tall objects, such as trees, poles, wires and fences. Take shelter in a low-lying area. People who have been struck by lightning do not carry an electrical charge and are safe to handle. If you come across someone who has been struck, call for medical assistance immediately.

If caught outdoors:

- Avoid putting yourself above the surrounding landscape. Seek shelter in low-lying areas such as valleys, ditches and depressions but be aware of flooding.
- Stay away from water. Do not go boating or swimming if a storm threatens and get to land as quickly as possible if you are already on the water. Lightning can strike the water and travel a substantial distance from its point of contact.
- Stay away from objects that conduct electricity, such as tractors, golf carts, golf clubs, metal fences, motorcycles, lawnmowers and bicycles.
- Avoid being the highest point in an open area. Swinging a golf club or holding an umbrella or fishing rod can make you the tallest object and a target for lightning.
- You are safe inside a car during lightning but be aware of downed power lines which may be touching your car. You are safe inside the car, but you may receive a shock if you step outside.
- In a forest, seek shelter in a low-lying area under a thick growth of small trees or bushes.
- Keep alert for flash floods, sometimes caused by heavy rainfall, if seeking shelter in a ditch or low-lying area.
- Remember, there is no safe place outdoors during a thunderstorm. Once in a safe location, remain there for 30 minutes after the last rumble of thunder is heard before resuming your outdoor activities.

Indoor Precautions:

- Before the storm hits, disconnect electrical appliances including radios, computers, etc. Do not touch them during the storm.
- Do not go outside unless absolutely necessary.
- Keep as many walls as possible between you and the outside.
- Stay away from windows, doors, fireplaces, radiators, sinks, bathtubs, appliances, metal pipes, telephones, and other things, which conduct electricity.
- Do not handle electrical equipment or telephones. The electrical current from the lightning strike will travel through wires and cords, and if you are directly connected with them, you could be struck. Use battery-operated appliances only. (Cell phones and cordless telephones are safe, however).

8.3.4.3 FLOODS

Be weather alert. Understand weather signs, keep an eye on the sky and monitor Environment Canada weather watches and warnings.

- If it has been raining hard for several hours or steadily raining for several days, be alert to the possibility of a flood.
- Make your way to higher elevations. Try to stay away from low-lying areas.
- Avoid walking through floodwaters. Even shallow, swiftly moving water can knock you off your feet.
- If you come upon a flooded area while driving, turn around and go another way.
- Stay clear of bridge crossings, rivers, creeks, water sources or areas with a history of flooding.
- Monitor the weather service on the radio, internet (if available), or television for weather warnings.

8.3.4.4 WILDFIRE

At any time, if you are advised to evacuate the area- do so immediately, following the designated route. Contact management and report in once you have reached a safe zone (or designated evacuation centre).

Driving through the Fire

- Wear your fire-retardant coveralls and boots to protect from flying sparks and ashes.
- Close all windows and vents, put air conditioning on recirculation.
- Keep your headlights on low beam and hazard lights when visibility is minimal.
- Watch for other vehicles and pedestrians- in rural areas, prepare to encounter fleeing livestock and wild animals.
- Use your horn if you feel people or animals are very close, but you cannot see them.
- Never attempt a pass in an evacuation route, as visibility is generally minimal, and you cannot see what is ahead.

Trapped in a Building

- Stay calm; keep everyone together.
- Call 911 and inform of location.
- Fill sinks and tubs with cold water.
- Keep doors/windows closed, but not locked.
- Stay inside the building, but away from walls or windows.

Trapped in a Vehicle

- Staying in a vehicle while waiting for a fire to pass should be the last resort, as the interior of a vehicle can get very hot, and a person can overheat very quickly.
- Stay calm- fast rapid breathing can do more harm than good- call 911 and report location if possible.
- Park in an area clear of vegetation or low-lying ditch. If you have a trailer attached or any fuel/compressed gases in the back of the vehicle, try to rid of it if time allows.
- Leave the engine running and keep all windows and vents closed. Keep the air conditioning on to recirculate air within the vehicle.
- Cover yourself/passengers with a blanket (not made of synthetic fibre), coveralls, jacket, etc.
- Wet a piece of fabric to breathe through if possible, or alternatively, breathe through your own clothing.
- Lie on the floor of the vehicle and say covered under the fire passes over.
- Immediately leave the vehicle once the fire passes. Watch for hot spots and tree limbs potentially still burning.

8.3.4.5 BLIZZARD

- Always check the weather and road conditions before departing.
- Each truck should have a winter survival gear that can be used.

Driving in a Blizzard

- Clear all the snow from the vehicle- especially the window, mirrors and all lights.
- Keep your wipers and headlights on at all times (low beam). For instances of minimal visibility, use hazard lights as well.
- Drive for the conditions, go well below the speed limit, keep in mind that your stopping distance will at least double in inclement weather.
- Snowplows always get the right of way, leave them plenty of room for stopping.
- Take extra caution maneuvering in a blizzard when you have a trailer attached, any quick movements on icy or slushy roadways can cause a jack-knife.

- Try to stay in any tire tracks on the roadway already established.
- Do not change lanes unless absolutely necessary.
- Black ice is very common on highways in Western Canada, especially under bridges and overpasses.
- Never use your cruise control when driving in a blizzard or winter storm.
- Some roadways and routes in Canada require tires to be chained to travel in preferred conditions.

Stranded

- If you become stranded during a winter storm, contact emergency services, and management to advise of the situation and location.
- Using a shovel, clear away snow from all around the exhaust area.
- Place emergency triangles on the roadway if the trailer or back end of the vehicle may be protruding onto the roadway.
- Stay in the vehicle while waiting for help; there is a chance that other vehicles may steer off the roadway and strike you. It is also very common to get disorientated in a blizzard.
- To conserve fuel, run the engine occasionally to provide heat.
- Bundle up in layers, however, do not sweat. The added moisture can potentially cause cold-related illnesses.
- Make small movements in the vehicle to circulate blood flow.
- Stay hydrated,
- Do not fall asleep if alone- if there is a passenger, take turns resting.

8.3.5 MEDICAL EMERGENCY

- Call for assistance by phone or radio. Give the exact location and details of the medical emergency.
- If qualified, provide basic first aid, and keep the person comfortable. Do not move the person. Do not leave him or her unattended.
- Arrange for emergency medical transportation based on the medical planning portion of the site's Emergency Response Plan.

8.3.6 MOTOR VEHICLE COLLISION

Involvement in a highway or secondary road collision or witness to a collision is high if we are on the road for work. You can lessen the risk of collision involvement by following the procedures, rules, and regulations set out by Goose Mechanical Inc. and the government.

8.3.6.1 AVOIDING A COLLISION

- Never work over your regulated hours.
- Always ensure you take the required time off each day.
- Never go out in adverse weather.
- Take unscheduled breaks if you are getting tired.
- Drive defensively.
- Get rid of all the unnecessary distractions such as loud music.
- Never use a handheld cell phone while driving. Each truck is equipped with a hands-free phone.

- Never eat while driving.
- If you need to reach for something in the cab, wait until it is safe and pull over.
- Never drive over the posted speed limits.
- Read and know the hazards and control measures.
- This company tries to ensure that drivers are always paired up, but there are times that you will be driving alone.
- When you are alone, always make sure you use the call-in service.

8.3.6.2 IF YOU ARE INVOLVED IN A COLLISION

You must stop; Failure to stop is a criminal offence.

8.3.6.3 STEPS TO FOLLOW AFTER A COLLISION

1. In the event of a traffic collision, REMAIN CALM.
2. If possible, and only if safe to do so, try to move the vehicle out of traffic (i.e. the side of the road). If the vehicle cannot be moved away from the road and traffic, then secure the area by setting up traffic cones. Activate hazard lights and lift your vehicle's hood (if possible) to make motorists aware you are there.
3. Turn the vehicle off and remove the key from the ignition
4. At no point should you put yourself between the vehicle and oncoming traffic
5. Call 9-1-1 or send for emergency services if and when necessary.
6. When necessary, attend to affected victims by administering first aid.
7. Take pictures of the scene and obtain witness statements and information.
8. Exchange insurance, registration and licence information with the driver of the other vehicle (if applicable).
9. Contact supervisor for further instructions.

8.3.7 WORKING ALONE- MISSING OR OVERDUE EMPLOYEE

8.3.7.1 PROCEDURE

In the event of a missing or overdue employee, the following procedure will be followed:

- A person in charge of assisting the employee who was working alone must immediately take charge or if informing another employee or management representative is deemed necessary or quicker, and then take charge of the situation.
- If there are any other available workers in the area, they may be transferred to assist in a search and rescue effort. These workers must be informed of all hazards that may be suspected. (i.e., H2S, poor road conditions, etc.)
- If no other workers in the area are available, and a third party is inaccessible; the person in charge may attend the area of interest him/herself.
- When the missing or overdue worker has been located, the person in charge must immediately be informed, so as he/she can address the situation appropriately. (I.e., call off the search, call emergency services, etc.)
- If the missing or overdue worker has been injured or emergency services have been called, Goose Mechanical Inc. must be contacted.
- If the missing or overdue worker cannot be located in a timely manner, the local authorities, as well as upper management, must be contacted and informed of the matter.
- The situation must be investigated, documented in its entirety, and filed.

8.4 FIRST AID

AB OHS Code Part 11; Schedule 2, Tables 5; 6; 7,

8.4.1 TRAINING STANDARDS

Workers successfully completing an approved first aid course are issued a first-aid certificate by an approved training agency. This card will be photocopied and put in workers file during the orientation process.

8.4.2 LOCATION OF FIRST AID

Goose Mechanical Inc. will ensure that first aid services, equipment, and supplies are available at worksites. The type of first aid services that must be provided is based on three criteria:

1. How hazardous the work is
2. The time is taken to travel from the worksite to a health care facility
3. The number of workers on each shift

8.4.3 EQUIPMENT AND SUPPLIES STORAGE REQUIREMENTS

First aid services, equipment, and supplies must be quickly and easily accessible during all working hours. Supplies will be:

- Maintained in a clean, dry, and serviceable condition.
- Contained in a material that protects the contents from the environment.
- Clearly identified as first aid equipment and supplies.

8.4.4 FIRST AID PROVIDERS

We will ensure that the number of first aiders at a worksite, their qualifications and training comply with the appropriate legislated requirements as indicated in provincial OH&S First Aid Tables. Goose Mechanical Inc. will also keep a record of workers who are first aiders.

8.4.5 POSTING SIGNS & EMERGENCY PROCEDURES

Goose Mechanical Inc. will ensure that the location of a first aid station is clearly and conspicuously identified. A first aid station, and an appropriate emergency procedure is to be prominently displayed that includes: an emergency telephone list or other instruction for reaching the nearest fire, police, ambulance, physician, hospital or other appropriate service and any written rescue procedure required. Signs posted, should be visible, easy to understand and appropriate to the workforce. Where signs are not practicable, workers must be informed of the location of the services, equipment and supplies by other means such as printed materials or verbal instructions. If members of the workforce have difficulty reading or understanding English, signs and printed materials (if they are used) should use easily understood symbols or include translations.

8.4.6 TRANSPORTATION PLAN

If an ambulance service *is not* readily available, or if the area of work is considered 'distant' or 'isolated,' Goose Mechanical Inc. will ensure before work begins, that a transportation plan is in place. The transportation plan will consider the following factors:

- The types of injuries or illnesses likely to occur given the hazards inherent to the work and the ages and limitations of the workers.
- The number of workers at the worksite.
- The distance to be travelled from the worksite to the health care facility.
- The availability of a local ambulance service.
- Ambulance or emergency vehicle response times.
- The time(s) of day that the worksite is in operation.
- The means of transportation needed to get to the worksite.
- Transportation routes.
- Seasonal or weather changes that may affect the means or routes of transportation.
- Travel times.

8.4.7 IDEAS TO CONSIDER WHEN BUILDING A TRANSPORTATION PLAN

The written plan must be available to all, including Occupational Health and Safety Officers upon request. Officers will look for the following in a transportation plan:

- Who to call — a list of the means of transportation that is to be used to transport injured or ill workers. The plan must specify whether an ambulance service is used, whether a means of transportation is summoned from a different location or whether on-site transportation is available.
- How to call — a clear statement of how the means of transportation will be summoned. List telephone numbers or radio channels as appropriate. Telephone numbers must be kept current and correct.
- Who makes the call — a clear statement of who may summon the emergency means of transportation.
- What to say — a listing of the information that the caller must give to the ambulance service so that the service can respond quickly. Location coordinates, for example, may be important when trying to reach a worksite in an isolated area.
- What to expect — a description of what will happen in the event that another worker becomes injured while the first one is being transported to a health care facility. Workers and first aiders remaining at the worksite must know what to do, whom to call if work continues and another worker becomes injured. The transportation requirements apply at all times while work is being performed at the worksite.
- Communication of the plan — evidence that the plan has been communicated to workers, including all designated first aiders. Officers may verify this by talking to workers and asking what the workers would do if they had to summon an ambulance.
- Date of plan completion — the plan should be dated to show when it was completed and how current it is.

Ambulance services should be contacted in advance to find out the processes involved in responding to a call and the expected response times. Response times to distant and/or isolated worksites may vary considerably depending on the type of day, the weather and other factors.

8.4.8 ACCOMPANYING HURT WORKER

Where a worker is seriously injured or in the opinion of first aid attendant, needs to be accompanied during transportation, Goose Mechanical Inc. will ensure that the worker is accompanied by a first aid attendant during transportation *if* travelling by means other than an ambulance.

8.4.9 RECORD OF INJURY OR ILLNESS

Goose Mechanical Inc. will create and maintain an accurate written record of all work-related injuries or sudden occurrences of illness that workers experience while at work.

If the cause of the illness or injury is unknown at the time treatment is provided, every effort should be made to determine the cause within a reasonable period of time and add this information to the First Aid Record Form. Workers must immediately report all injuries to Goose Mechanical Inc.. Even if no first aid is administered, any illness or injury reported by a worker must be recorded. A record will include the following:

1. The name of the worker.
2. The name and qualifications of the person giving first aid.
3. A description of the illness or injury.
4. The first aid given to the worker.
5. The date and time of the illness or injury.
6. The date and time, the illness or injury was reported.
7. Where the incident occurred.
8. The work-related cause of the incident, if any. Goose Mechanical Inc. must retain the records for three years from the date the incident is recorded.

8.4.10 FIRST AID RECORD FORM

First Aid Record

Date of Injury or illness:
dd/mm/yr _____ Time: _____ ☐ AM ☐ PM

Date of Injury or illness reported:
dd/mm/yr _____ Time: _____ ☐ AM ☐ PM

Name of injured worker: _____

Description of the injury or illness:

_____

_____

_____

_____

Details on location where the injury / illness occurred / began:

_____

_____

_____

Cause of the injury or illness:

_____

_____

_____

First Aid Provided: ☐ Yes ☐ No Name of First Aider: _____

First Aider Qualifications: ☐ Emergency First Aider ☐ Standard First Aider ☐ Advanced First Aider ☐ Nurse
☐ Emergency Medical Tech ☐ Emergency Medical Paramedic ☐ Emergency Medical Responder

Describe First Aid Provided:

_____

_____

_____

☐ Copy provided to injured worker ☐ Copy refused Injured worker's initials: _____

Keep this record confidential and retain for at least 3 years from date injury/illness is reported.

8.4.11 EMERGENCY RESPONSE PLAN FORM

Emergency Response Plan

Date: _____ Location: _____

Potential Emergencies		
Emergency Procedures	Evacuate - turn off any equipment / sources of ignition Alarm - notify others of an emergency Assess - assess the situation Protect - protect yourself, is it safe to be in the area? Do I have protective clothing? Rescue - proceed with rescue only if capable Revive - CPR, First Aid Medical Aid - seek, wait for medical aid Wait - Wait from approval from emergency personnel & Site Supervisor before re-entering worksite or resuming work activities	
Location of Emergency Equipment	Fire Extinguisher:	
	First Aid Kit:	
	Emergency Exits	
	Muster Point:	
Location of Emergency Facilities	Fire Station:	
	Ambulance:	
	Police:	
	Hospital:	
	Other:	
Workers Trained in the use of Emergency Equipment	First Aid:	
	Fire Extinguisher:	
Emergency Response Training Requirements		
Alarm & Emergency Communication Requirements		
Safety Data Sheets	Location/Type:	
Procedures for Rescue and Evacuation		
Designated Worker(s) for Evacuation & Rescue		

Comments: _____

Signed: _____

8.4.12 EMERGENCY RESPONSE DRILL FORM

Emergency Response Drill

Date of Drill: _____ Location: _____

Time of Drill: _____ Drill Conducted By: _____

In attendance:

_____ _____ _____

_____ _____ _____

_____ _____ _____

Describe the type of emergency drill conducted:

Summary of completed drill (what worked well, what needs improvement, etc.):

Follow-up action required:

Management Sign-off: _____

8.5 EMERGENCY CONTACT LIST

Alberta Emergency Numbers	
Emergency Services	911
STARS Air Rescue	1-888-888-4567 or *4567 from a cell phone
Occupational Health & Safety	1-866-415-8690
Workers Compensation (WCB)	1-866-922-9221
Alberta Environment	1-800-222-6514
Fortis	403-310-9473
Epcor	403-310-4300
Telus	403-310-3100
Provincial Disaster Services	1-800-272-9600
Alberta Energy & Utilities Board	1-780-538-5138
Alberta 1- Call	1-800-242-3447
Poison Control Center	1-800-332-1414
Transportation of Dangerous Goods	1-800-272-9600
CANUTEC	(613) 996-6666 or *666 from a cellphone

8.6 EMERGENCY RESPONSE PLAN

ERP Plan	
Goose Mechanical Inc.:	
Address or Location:	
Completed By:	
Date	
Potential Emergencies	- Fire - Power outage
Emergency Procedures	**If an Emergency occurs, these steps need to be taken by the assigned personnel**
	If a fire occurs, sound the alarm or use an air horn to initiate the evacuation and alert the fire station. All staff must calmly exit the building and head to the nearest muster point. Fire warden is to ensure that all staff are alerted and visitors are accounted for and provide information to emergency personnel. No one may enter the building until the Fire Warden Allows
Location of Emergency Equipment	
Emergency Response Equipment Training & Requirements	Training and frequency of required training in fire extinguishers, fire warden and standard first aid is in the designated employee identified above with proof of training in their training records.

9 Investigations

9.1 INVESTIGATION POLICY

Incident investigations are an integral component of Goose Mechanical Inc.'s Health and Safety Program and shall be conducted to determine the cause of an incident in order to implement corrective action to prevent future occurrences. Investigations will be done on all loss, no-loss (near miss), occupational illnesses, work refusals and vehicle incidents.

All injuries or incidents must be reported immediately for appropriate treatment of the situation. An investigation will be conducted for any incident, and they will be documented on the ***Incident Investigation Form***. Any safety concerns, near misses, hazards, unsafe acts, or noteworthy events will be recorded on the ***Near Miss / Safety Concern Form***.

- All workers must report all incidents and near misses to their Goose Mechanical Inc. supervisor or management.
- Management, or a supervisor trained in incident investigations, shall promptly conduct initial investigations.

9.1.1 TYPES OF INCIDENTS TO BE INVESTIGATED

- Personal injury requiring first aid
- Incidents that cause property damage or interrupt operations with a potential loss
- Occupational Illnesses
- No-loss type (close calls/near miss)
- Work refusals

Goose Mechanical Inc. will ensure that all reportable incidents are reported to OHS as legislated, as indicated in:

- Alberta section 40(1) of the *Alberta OH&S Act,* The OHS Act, section 33, describes incidents that must be reported to Alberta OHS as soon as possible. These are:
    - Serious injuries, illnesses or incidents, including fatalities.
    - Radiation overexposures.
    - Incidents at a mine or mine site
- Workplace injuries are reported to the Workers Compensation Board as soon as possible. All incidents and the corrective action shall be discussed with workers at scheduled safety meetings.

A supervisor will go to hospital with injured workers to identify if the injury is one that will have to be reported to WCB and OH&S, and to collect information from the attending doctor

Senior Management **Date**

9.2 INCIDENT REPORTING

All health and safety incidents must be reported, no matter how small, and incidents must be documented and reported as soon as possible. Reporting an incident requires the worker to communicate to a supervisor or Goose Mechanical Inc. management, documenting on the relevant form, and submitting the form.

9.2.1 REPORTING AN INCIDENT

- Immediately verbally report to management or supervisor the details of the incident and the current status of the workers and the equipment.
- The protection of evidence as required by legislation
- An outline of the types of incidents that must be reported to the applicable governing authority
- Depending on the severity of the incident, management will dispatch assistance as appropriate or recommend and coordinate corrective action.
- As soon as possible, start documenting the incident
- A full investigation will be performed

9.2.2 REPORTING HAZARDOUS CONDITIONS

If a hazardous condition is encountered:

- Bring it to the attention of a supervisor immediately.
- Ensure that all workers are aware of the hazardous condition.
- Supervisor and competent individuals will ensure that corrective measures are taken to either eliminate or control the hazard.
- Fill out the form and submit it to management for review.
- A competent individual trained in incident investigations or management will investigate and assist in all incidents. Management will determine if a new policy or procedure is required, existing policies or procedures need to be revised, additional training is required, etc.
- The report will be reviewed at a safety meeting.

If a worker is involved in a near miss:

- Bring it to the attention of a supervisor immediately.
- If corrective action is required to prevent possible injury/damage, ensure that it is done immediately.
- Complete a report and submit it to a supervisor for review.
- Management will investigate to determine if a new policy or procedure is required.
- Existing policies or procedures need to be revised; additional training is required, etc.
- The report will be reviewed at a safety meeting.

Workers are required to comply with health & safety incident reporting, and care will be taken at all times to ensure that the communication lines remain open. All incidents and near misses will be investigated, and the investigation procedure is detailed in the following section of this manual. In the case of an OH&S report required incident, Goose Mechanical Inc. will ensure to report to Provincial Occupational Health & Safety promptly when required.

9.3 REPORTING & INVESTIGATING POTENTIALLY SERIOUS INCIDENTS

9.3.1 WHAT IS A PSI?

A PSI is any event where a reasonable and informed person would determine that there would be a high likelihood for a serious injury to a person under slightly different circumstances. A PSI is not limited to workers, and it does not require the occurrence of an injury.

When determining whether an incident is a PSI, the following factors should be taken into consideration:

- actual circumstances of the incident (person, place, time, work practices being followed)
- hazards present at the time of the incident
- appropriate controls in place at the time of the incident
- slightly different circumstances (timing, distance, body position, etc.) that may have resulted in a serious injury

An injury is considered serious if it falls under Section 33(5) of the OHS Act gives the two criteria that define a reportable potentially serious incident. These are:

- The incident had a likelihood of causing a serious injury or illness.
- There is reasonable cause to believe that corrective action may need to be taken to prevent recurrence

A PSI is not limited to workers. If someone who isn't a worker is involved, it's only a potentially serious incident if it resulted from work activities at the work site or could have happened to a worker.

9.3.2 REPORTING AN INCIDENT

Use the online form to report PSIs. Submit PSI reports after an investigation is complete, as required by Section 33(6) of the OHS Act.

To meet their obligations under the Act, the employer or prime contractor (if there is one) must also:

- carry out an investigation of the incident
- prepare a report that outlines their investigation, including any corrective actions taken
- ensure a copy of the report is readily available and given to an OHS officer on demand
- provide a copy of the report to a director, the joint health and safety committee or health and safety representative, if applicable. If there is no committee or representative, a copy must be made available to workers once the investigation is complete
- retain a copy of the report for at least 2 years after the PSI

PSI reporting is the responsibility of the employer or prime contractor, if there is a prime contractor. If a worker wishes to report an incident, they will be directed to contact the OHS Contact Centre.
An employer is not required to secure the scene of a PSI.

PSI reports are not admissible as evidence for any purpose in a trial arising out of the injury or incident, except in a prosecution for perjury or for the giving of contradictory evidence.

9.3.3 WHAT INFORMATION IS REQUIRED FOR THE REPORT?

Goose Mechanical Inc. will be required to provide, but are not limited to, the following information:

- the location of the PSI
- a description of what happened
- the time and date when the PSI occurred

9.3.4 WHO IS RESPONSIBLE FOR INVESTIGATING THE PSI?

To meet their obligations under the OHS Act, Goose Mechanical Inc. will:

- Investigate the circumstances surrounding the incident. Involve the joint worksite health and safety committee (HSC) or health and safety (HS) representative, if there is one.
- Prepare a report that outlines the circumstances of the incident and corrective actions taken, if any.
- Provide a copy of the report to the Director of Inspection.
- Provide a report to the HSC or HS representative, if applicable; if there is no committee or representative, a copy must be made available to workers.
- Retain a copy of the report for at least two years after the PSI occurred.

9.3.5 WHAT HAPPENS AFTER A PSI HAS BEEN REPORTED?

An OHS officer may contact Goose Mechanical Inc. and/or attend the worksite to conduct an inspection. They have the authority but are not limited to the following activities:

- Collect information, including electronic documents that relate to the health and safety of workers, as well as statements from witnesses to the incident.
- Request documents, seize or take samples of any substance, material, product, tool, appliance, or equipment present at, involved in, or related to the incident.

Goose Mechanical Inc. is required to conduct an independent investigation.

9.4 CONDUCTING INCIDENT INVESTIGATIONS

9.4.1 PURPOSE

Incident investigations are intended to determine the direct causes of an incident and recommend changes to the health and safety management system to prevent similar events. A near miss could easily result in an injury or a fatality and will also be thoroughly investigated. The following is a basic guide for investigation, and each incident is unique, and therefore, the effort and detail required of an investigation will be dependent on the severity.

9.4.2 TYPES OF INCIDENTS TO BE INVESTIGATED

- Any incident or personal injury requiring first aid
- Incidents that cause property damage or interrupt operations with a potential loss
- Occupational Illnesses
- No-loss type (close calls/near miss) that have the potential for serious injury or major equipment damage.
- A worker's refusal to perform a job task due to unsafe work condition.
- Any incident involving costs for a Workers' Compensation claim.
- All vehicle and equipment damage.
- All significant spills, leaks and release of hazardous substances.

9.4.3 INVESTIGATION PROCEDURES

Goose Mechanical Inc. will ensure that a competent, trained individual performs the incident investigation, and is familiar with the activities that relate to the incident. All members of the investigative team will have received appropriate training, which will identify them as competent and qualified to investigate the incident. We will provide training on the appropriate investigation techniques that will be utilized during an incident investigation.

If media arrives at the workplace, only an approved spokesperson is permitted to make any statements on behalf of the Company. Workers are not authorized to speak to the media.

In the event of any work-related incident, the following procedures must be followed:

1. Immediately verbally report to management or supervisor the details of the incident and the current status of the workers and the equipment.
2. Depending on the severity of the incident, the supervisor will dispatch assistance as appropriate or recommend and coordinate corrective action.
3. The appropriate company and regulatory forms are to be fully and concisely completed and submitted to management or supervisor as soon as possible (within 12 hours of the incident).
4. Management will complete an investigation and do the following:
    a. Ensure that any injured persons are cared for.
    b. Ensure that no further injury or damage occurs.
    c. Get the "big picture" of what happened.
    d. Examine the equipment/materials involved.
    e. Preserve the evidence - collect and safeguard any physical evidence. Where practicable, the scene of any incident should be left untouched, except for activity necessitated by rescue work or to prevent further failures or injuries until the incident has been investigated.
    f. Take photographs of the scene.

g. Interview witnesses and obtain written statements where appropriate.
h. Analyze all the available information to determine the causes.
i. Look for causes where "the system failed the worker," not only for those where the "worker failed the system."
j. Determine what corrective action will prevent a recurrence.
k. Complete the report.
l. Follow-up to ensure corrective action is completed.

5. Management will handle notifications and reports to appropriate client representatives and/or Government Agencies.
6. If a worker is injured, appropriate WCB forms must be completed and submitted to the Workers Compensation Board, by both the worker and by Goose Mechanical Inc. management.
7. Appropriate WCB forms must be completed and submitted to the Workers Compensation Board if incident results in, or likely to result in:
    a. Lost time or the need to modify work temporarily or permanently beyond the date of accident,
    b. Death or permanent disability (amputation, hearing loss, etc.),
    c. A disabling or potentially disabling condition caused by occupational exposure or activity (poisoning, infection, respiratory disease, dermatitis, etc.),
    d. The need for medical treatment beyond first aid (assessment by physician, physiotherapy, chiropractic, etc.) or
    e. Incurring medical aid expenses (dental treatment, eyeglass repair or replacement, prescription medications, etc.).

Goose Mechanical Inc. will ensure that a competent, trained individual performs the incident investigation and is familiar with the activities that relate to the incident.

All members of the investigative team will have received appropriate training, which will identify them as competent and qualified to investigate the incident. Goose Mechanical Inc. will provide training on the appropriate investigation techniques that will be utilized during an incident investigation.

9.4.4 EMPLOYEE PARTICIPATION

It is not an occupational requirement for all employees to actively participate in the incident investigation process. However, all employees need to be able to describe how employees at Goose Mechanical Inc. are participating in the investigation process. Employees at all levels, including workers, senior managers, managers, and supervisors, should be involved in the investigation process. Incident investigations are also to include the involvement of workers who conduct the type of work associated with the incident.

9.4.5 IDENTIFICATION OF ROOT CAUSES, CONTRIBUTING AND UNDERLYING FACTORS & CORRECTIVE ACTIONS

After the investigation of any incident, Goose Mechanical Inc. will complete in full the investigation report, which shall include the following:

- Description of the incident.
- Details of all evidence collected during the investigation.
- Causes (both direct and indirect) of the incident.

- Contributing factors or root cause of the incident.
- Corrective Actions:
    - Immediate corrective action.
    - Long-term corrective actions that will assist in the prevention of a reoccurrence.

9.4.6 DOCUMENTATION

All incidents must be documented and provided to Goose Mechanical Inc. management without delay. All incident investigation reports will be retained for a period of no less than three years after the incident investigation has been concluded. Incident files will contain the following:

- Copy of the initial incident report.
- All investigation documents, such as interview notes, investigators report copies of all loss invoices.
- Proof that the agreed recommendation actions have been enacted.

Goose Mechanical Inc. will also keep records of each injury that affects a worker and is made known to the company. The record will contain:

- Date, time, location of the incident that resulted in an injury.
- Name of the worker affected.
- Brief description of the injury.
- Causes of the injury.
- First aid treatment received (if any).

9.4.7 IMPLEMENTING RECOMMENDATIONS

All recommendations approved by Goose Mechanical Inc. management will be documented and closed out through the following actions:

- Recommended changes will be communicated through safety meetings, safety alerts or safety memos.
- The corrective action process will be documented, indicating the required time, to/by whom, what, etc.
- Follow-up inspections required to be performed by management.
- New procedures; and amendments of procedures/regulations.

9.4.8 MANAGEMENT REVIEW

Goose Mechanical Inc. will ensure that senior managers are involved in the investigation process. This will include the review and sign-off of all completed investigations.

9.4.9 TREND ANALYSIS

Internal statistics will be kept on all incidents occurring within Goose Mechanical Inc. to determine trends. Information on trends will be shared with internal workers through safety meetings, memos or alerts. Statistical analysis may be shared with external customers to verify the safety program.

Through the analysis of past incidents and trends, a more proactive approach can be used to prevent incidents in the future.

9.4.10 DEFINITIONS

Incident: An event that results in an unintended loss, harm or damage. Incidents resulting from contact with a substance or source of energy above the threshold limit of the human body or object.

Direct Cause: direct causes of incidents may be attributed to substandard practices or conditions. These are the hazards that exist immediately prior to the incident. Immediate direct causes are the symptoms of deeper problems.

Fatality: A work-related incident or illness that results in death.

First Aid (FA): Any treatment of minor scratches, cuts, burns, splinters, and so forth, and any follow-up visits for the purpose of observation. The following are generally considered First Aid treatments:

- Application of an antiseptic during the first visit to a medic or physician.
- Treatment of first-degree burns.
- Use of elastic bandages.
- Removal of foreign bodies not embedded in the eye if only irrigation is required.
- Use of non-prescription medicine or the use of a single dose of prescription medication on the first visit to a medic or doctor to treat a minor injury or discomfort.

Incident: An unplanned event or chain of events, which has or could have caused injury, illness and/or damage to assets, environment or third party. Incidents incorporate all near misses and incidents.

Indirect/Underlying Cause: are personal or job factors that contributed to the immediate direct cause. These are the causes behind the symptoms. They are not as apparent as the immediate direct causes.

Near Miss: An undesired event, which, under slightly different circumstances, could have resulted in harm to people, damage to property, or loss to process.

Root Cause: The purpose of investigations is to identify both the factors that contributed to an incident and the root causes behind those factors.

Substandard Condition: a substandard condition is any hazardous arrangement that, if left uncorrected, may lead to an incident.

Substandard Practice: a substandard practice of any individual is any departure from an accepted, normal, or correct procedure or practice that permits the occurrence of an incident

Unsafe Act: where the cause was a specific action, or lack of action taken by the individual would be considered under the individual's control (i.e., general violation of safety rules, disregard of a hazard, etc.) would be considered an unsafe act unless specific criteria indicate a personal factor to be the cause.

9.4.11 TRAINING

Any individuals leading investigations will be trained in investigation techniques. Training records will be maintained in employee files.

9.4.12 INCIDENT INVESTIGATION REPORT FORM

Incident Investigation Report Form

Date Report Started: _____ Police File Number (If Applicable): _____

Incident Specifics

Incident type: ☐ Injury/Illness ☐ Property Damage ☐ Fire ☐ Spill ☐ Work Refusal ☐ Other

Incident date: _____ Incident time: _____ ☐ AM ☐ PM

Location: _____

Injury/Illness (If not applicable, do not fill out)

Incident Type: ☐ First Aid ☐ Medical Aid ☐ Modified Work ☐ Lost Time

Name of injured: _____

Employee occupation: _____

Type of injury: _____

Equipment / object that caused injury: _____

Person in control of the equipment or object that caused injury: _____

Event prior to incident: _____

Property Damage

Item damaged: _____

Description of damage: _____

Estimated cost: _____ Actual cost: _____

Equipment / object that caused damage: _____

Person in control of the equipment or object that caused damage: _____

Description of incident (including individuals involved)

_____

_____

_____

_____

_____

_____

_____

Diagram

Not to Scale

Cause Analysis

DIRECT CAUSES

Unsafe Practices

- ☐ Improper loading
- ☐ Using defective equip./tools
- ☐ Procedural deviation
- ☐ Operating without authority
- ☐ Improper manual lifting
- ☐ Improper placement
- ☐ Servicing equip. in operation
- ☐ Inappropriate conduct
- ☐ Unsafe position (line of fire)
- ☐ Operating at improper speed
- ☐ Using Equip./tools improperly
- ☐ Micro breaks not taken
- ☐ Failing to use PPE properly
- ☐ Impairing/removing guards
- ☐ Failure to warn
- ☐ Failure to secure
- ☐ Working unsafely on equip.
- ☐ Trying to gain/save time
- ☐ Inattentive to job hazards
- ☐ Horseplay
- ☐ Workplace Violence
- ☐ Breach of rule
- ☐ Improper body posture
- ☐ Altering or modifying equip.

Other: _____

Unsafe Conditions

- ☐ Inadequate guards/barriers
- ☐ Inadequate/improper PPE
- ☐ Chemical reaction
- ☐ Congested work area
- ☐ Defective equip./tools
- ☐ Inadequate warning system
- ☐ Fire/explosion hazards
- ☐ Wildlife
- ☐ Inadequate ventilation
- ☐ Hazardous atmosphere
- ☐ Radiation exposure
- ☐ Insufficient housekeeping
- ☐ Slip/trip hazards
- ☐ Equip. design/arrangement
- ☐ Adverse weather
- ☐ Noise exposure
- ☐ Inadequate illumination
- ☐ High/low temp. exposure

Other: _____

Other: _____

Other: _____

BASIC/ROOT CAUSE

Job Factors

- ☐ Inadequate design
- ☐ Inadequate Maintenance
- ☐ Inadequate work standard
- ☐ Inadequate Equip./tools
- ☐ Inadequate communication
- ☐ Inadequate purchasing
- ☐ Inadequate supervison
- ☐ Inspection oversite

Other: _____

Other: _____

Other: _____

Personal Factors

- ☐ Insufficient training
- ☐ Inadequate skills/knowledge
- ☐ Unfit for work
- ☐ Insufficient planning
- ☐ Excessive physical stress
- ☐ Excessive mental stress
- ☐ Distraction
- ☐ Fatigue

Other: _____

Other: _____

Other: _____

**Specify Corrective Action(s) to be taken, and due date for completion

ACTION ITEMS

Action Item	Assigned to	Due Date	Completion Date

Witness statements attached? ☐ Yes ☐ No Drug & alcohol testing conducted? ☐ Post Incident ☐ Return to Work

Investigated by:		Date:	
Follow-up review by:		Date:	
Management Signature:		Date:	

Witness Statement

Statement of: _____

Address: _____

Date of Birth: _____ Telephone: _____

Occupation: _____ Position: _____

Experience with employer: _____

Duties at time of incident: _____

Description of Incident:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Signature: _____ Date: _____

9.4.13 NEAR MISS / SAFETY CONCERN REPORT FORM

Near Miss / Safety Concern Report

Report of: ☐ Safety Concern ☐ Near Miss ☐ Hazard ☐ Unsafe Act ☐ Incident ☐ Noteworthy Event

Date: _____ Supervisor: _____ Job #: _____

Name: _____ ☐ Male ☐ Female Age: _____ Years of Experience: _____

Date of Incident: _____ Time: _____ Position: _____

Location: _____ Client: _____

Type of Event: (Check all applicable categories)

☐ Hazard ☐ Incident ☐ Near Miss ☐ Unsafe Act ☐ Security ☐ Illness ☐ Injury ☐ Behaviour

Weather:

Temp _____ Wind _____ Cloud Cover _____ ☐ Rain ☐ Fog ☐ Snow ☐ Ice ☐ Hail

Potential Risk: ☐ Low ☐ Medium ☐ High

Description of Event:

Employee Signature: _____ Supervisor Signature: _____

Supervisor's Comments

Findings - Causes

Direct: _____ Indirect: _____ Root: _____

Controls

Interim Action: _____

Remedial Action: _____

Remediation Completed By: _____ Date: _____

Management Review: _____ Date: _____

9.4.14 CORRECTIVE ACTION LOG

Corrective Action Log

Item #	Hazard or Deficiency	Date Reported d/m/yr	Corrective Action	Date Completed d/m/yr	By Whom (print name)

Manager's Signature: _____ Day/Month/Yr _____

Comments:

10 Program Administration

10.1 RECORD KEEPING AND STATISTICS

Record keeping and statistics refer to the methods of recording, analyzing and tracking the safety performance of Goose Mechanical Inc.. Tracking statistics and measuring the performance of the safety program will help identify areas of concern that may indicate a need to modify worker performance, accountability and/or other aspects of the safety program. Trending past performance will allow for key learning's into what is working and what is not.

Goose Mechanical Inc. shall maintain statistics and records as an aid in identifying trends, unusual conditions and problem areas. The following information will be kept on file:

- Corrective Action Logs
- Emergency Response Drills
- Emergency Response Plans
- First Aid Records
- Hazard Assessments
- Hazard Reports
- Incident Reports & Investigations
- Inspections
- Maintenance Records
- An offer of Modified Work
- Orientations
- Right to Refuse Forms
- Safety Concern/ Near Miss Reports
- Safety Meeting Forms
- Safety Summaries
- Training Records
- Worker Evaluation
- Worker Warning Report

All documentation pertaining to the safety tracking will be retained for a period no less than three years and for future reference.

10.1.1 PROACTIVE REPORTING

Proactive reporting consists of hazard identification, near miss reporting, incident reporting and all forms of inspections. It is essential that all workers participate in all forms of proactive reporting.

10.1.2 HEALTH AND SAFETY STATISTICS

In order to measure the safety performance of Goose Mechanical Inc., health and safety statistics will be prepared at a minimum of a quarterly basis. Statistics will be addressed by management and communicated to workers at the corresponding quarterly safety meetings.

Understanding and communicating the impact and significance of health and safety statistics to all workers will heighten the awareness of safe work behaviours.

Safety statistics are to be recorded on the ***Safety Summary Form,*** and injuries are to be summarized annually on the ***Year-End Summary Form***.

In order to measure the safety performance of Goose Mechanical Inc., the following methods will be used to calculate the various losses to health and safety:

- **Lost-time Incident Frequency Calculations**
  - **Definition:** The number of lost-time injuries multiplied by the American National Standards Institute (ANSI) constant of 200,000 and divided by the total number of worker hours of exposure.
- **Total Recordable Injury Calculations**
  - **Definition:** Total recordable injuries are the sum of the fatalities, lost time, restricted work injuries, and medical aid cases. The total recordable injury rate is the number of total recordable injuries per 200,000 exposure hours worked during the period.
- **Equipment Damage, Failure and Process Loss**
  - Goose Mechanical Inc. will track and trend various damages or failure to equipment and loss or potential loss. These statistics are a valuable tool in accessing a company's performance towards maintenance, inspections, processes, and procedures.

10.1.3 PROGRAM REVIEW

Goose Mechanical Inc.'s health and safety program will be evaluated at least annually to ensure support of continuous improvement. This will be completed through evaluations or the use of an action plan.

10.1.4 SAFETY SUMMARY FORM

Safety Summary

Date: _____ ☐ Monthly ☐ Quarterly ☐ Annually

Number of Workers Hired: _____

Number Orientations Completed: _____

Number of Safety Courses Completed: _____

Number of Hazard Assessments Completed: _____

Number of Inspections: ☐ Shop ☐ Yard ☐ Office ☐ Worksite ☐ Equipment ☐ Vehicles

Total Emergency Response Drills: _____

Total Safety Meetings: _____ Total Toolbox Meetings: _____

Number of Total Incidents: _____

Damage Only: _____

Injury Only: _____

Damage + Injury: _____

Near Misses + Hazard ID's: _____

Fatalities: _____

Lost Time Injuries (miss 1 day of work or more): _____

Total Recordable (Medical aid + Light Duty + LTI): _____

Modified Work Cases and Total Days: _____

Vehicles: _____

Employee Hours Worked: _____

Approximate Kilometres Driven: _____

Comments:

_____

_____

_____

Management Signature: _____ Date: _____

10.1.5 YEAR END INJURY SUMMARY REPORT FORM

Year End Injury Summary

Year: _____

	Personal Injury Cases				
Month	**Lost Time Cases**	**Medical Referral**	**Days Lost**	**Frequency**	**Severity**
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Total					

Management Sign-off: _____

11 Health and Safety Committees (HSC) / Health & Safety Representatives

11.1 JOINT WORKSITE HEALTH & SAFETY COMMITTEES AND REPRESENTATIVE POLICY

Health & Safety Committees and representatives are a key element of the internal responsibility system. They bring worksite parties together to collaborate on topics such as hazard identification and control, investigation of health and safety incidents and responding to reports of dangerous work.

11.1.1 WHAT IS AN HSC OR HS REPRESENTATIVE?

HSC – A group of worker and employer representatives working together to identify and solve health and safety concerns at the worksite.

HS Representative – An individual worker representative who promotes health and safety awareness and works with the employer to address health and safety concerns at the worksite.

- HSCs and HS representatives are an important part of the internal responsibility system because they allow meaningful participation in health and safety.
- HSCs and HS representatives serve as advisors to the employer.
- Regulated work site parties who have control of work sites – such as prime contractors and employers – are responsible for implementing solutions.

11.1.2 WHEN IS AN HSC OR HS REPRESENTATIVE REQUIRED?

Alberta

(Occupational Health and Safety Act & Part 13 of the OHS Act gives the requirements for determining the number of workers.)

- Health and Safety Committee
  - An employer must establish an HSC if the employer regularly employs 20 or more workers
- Health and Safety Representative
  - An employer must designate an HS representative if the employer regularly employs five to 19 workers.
  - OHS statutory directors can also require an HSC or an HS representative at any work site

Senior Management **Date**

11.2 JOINT HEALTH & SAFETY COMMITTEE RULES OF PROCEDURE / TERMS OF REFERENCE

11.2.1 CONSTITUENCY

Representative Name	Group/Area/Department/Union

11.2.2 PURPOSE

To identify and resolve safety concerns as well as to promote health and safety at the worksite.

11.2.3 DUTIES AND FUNCTIONS

- The response, consideration, confidentiality, and disposition of concerns and complaints respecting the health and safety of workers
- Participation in the identification of hazards to workers or other persons arising out of or in connection with activities at the worksite
- Develop, monitor, and follow-up on corrective actions
- The development and promotion of measures to protect the health and safety of persons at the worksite and checking the effectiveness of such measures
- Cooperation with an officer exercising duty under the OHS Act, the regulations and provincial OHS
- The development and promotion of programs for education and information concerning health and safety
- The making of recommendations to improve the health and safety management system
- Coordinating with the other worksite health and safety committees and representatives
- The inspection of the worksite at regular intervals
- The participation in investigations of serious injuries and incidents at the worksite
- The maintenance of records in connection with the receipt and disposition of concerns and complaints and the attendance to other matters relating to the duties of the committee
- Other duties as may be specified in this act, the regulations and provincial OHS
- Duties shall be performed during normal working hours.

11.2.4 RECORDS

The committee will keep accurate records of all activities conducted by and all items addressed by the committees.

11.2.5 MEETINGS

The committee shall meet:

- within ten days of being established

- at least quarterly
- if requested by a co-chair
- if requested by an OHS officer

A quorum is required to hold a meeting (see below).

11.2.6 AGENDA AND MEETING MINUTES

Meeting agendas and minutes will follow our template.

11.2.7 TRAINING REQUIREMENTS

All worker and employer representatives will receive a JWSHSC orientation by committee members prior to being on the committee.

11.2.8 COMPOSITION

- A representative will be elected from each group/area/department.

11.2.9 CO-CHAIRS

- The committee will consist of a designated number of members
- One worker representative will be elected from each group/area/department.

11.2.10 ONE EMPLOYER

The members of the JWSHSC committee will select two co-chairs.

- The worker representative will select one co-chair
- The employer representatives will select one co-chair

Co-Chair responsibilities are listed below.

- Alternate in serving as chair at committee meetings
- Participate in all decisions of the committee
- Prepare the agendas for the committee meetings
- Ensure that meeting minutes are recorded
- Ensure that meeting minutes are approved and given to the employer within seven days of the meeting
- Ensure copies of the approved meeting minutes are posted or provided by electronic means at the worksite within seven days after the day the meeting was held.
- Either co-chair may call a special meeting.

11.2.11 QUORUM

The composition of the quorum shall follow the requirements below:

- The committee consists of a selected number of members
- Both worker and employer members must be present
- At least one-half of the member's present are workers

A quorum is required to conduct a meeting or make valid recommendations and decisions.

11.2.12 SUCCESSION STRATEGY

Should both co-chairs be unavailable for the meeting, a worker will be nominated as a temporary co-chair.

11.2.13 TERMS OF OFFICE

The duration in the OHS Act are specified below:

- Normally not less than one year
- May be longer than one year until a successor is elected or appointed
- Determined as per the union's agreement
- If there are multiple unions, determined via an agreement amongst all the unions.

11.2.14 RECOMMENDATIONS TO THE EMPLOYER

Recommendations that are made by the JWSHSC will be provided to management.

11.2.15 RESOLUTIONS OF DISAGREEMENT

- **With the Employer**
  - when a matter cannot be resolved after written reasons are given by the employer, and then if the matter still cannot be resolved, a member of the JSHC may refer the concern to an OHS officer.
- **Amongst the JWSHSC**
  - When the committee is unable to reach an agreement regarding a health and safety matter, the committee will contact OHS.
- **Amendments**
  - Vote of the committee members may amend these rules of procedure.
  - Any changes must be recorded in this section of the rules of procedure.

11.2.17 JOINT HEALTH & SAFETY COMMITTEE MEETING MINUTES

Joint Health and Safety Committee Minutes

Date: _____ Time: _____ Location: _____

Name	Present / Absent	Member Category *	Certified Member	Work Location

(*) W – Worker/Non-Management, M – Management

Co- Chair (Management) _____ Co- Chair (Non-Management) _____

Guests

Name	Title/Position	Department

MINUTES OF PREVIOUS MEETING:

Business Arising From Previous Meeting		
Item #:	Discussion (heading, description, actions taken,recommendations)	Actions Done By
1.		
2.		
3.		
4.		
5.		

New Business		
Item #:	Discussion (heading, description, actions taken,recommendations)	Actions Done By
1.		
2.		
3.		
4.		
5.		

Accident / Incident / Reporting Statistics:

First Aid: _____ Medical Aid: _____ Lost Time: _____ First Aid: _____ Modified Duty: _____

Near Miss: _____ Hazard Id's: _____ Other: _____ _____

Inspections

Education & Training

Committee Recommendation(s)

Other Business

Joint Health and Safety Committee Recommendations

To: _____ Date: _____

From:

Co-Chair Signature (Management): _____ Co-Chair Signature (Non-Management): _____

Please respond by _____ (within 21 days)

OHS Issues

Committee Recommendations

Employer Response

Sr. Management Signature: _____ Date Returned: _____

Joint Health and Safety Committee Comments

12 Additional Policies

12.1 MODIFIED WORK / SAFE RETURN TO WORK

In order to maintain a safe working environment, it is essential that employees, contractors and subcontractors are able to perform their duties associated with the assigned tasks. This is to ensure that all are physically fit to safely perform the duties without risk or harm to themselves or others.

Goose Mechanical Inc. prefers to offer modified work to employees who have suffered a workplace injury and/or have limited physical restrictions rather than having a lost-time injury. Goose Mechanical Inc. has a Modified Work program, and modified work will be offered to any worker who has been injured on the job.

Goose Mechanical Inc. reserves the right to have an employee's duties and/or have the employee removed from the worksite if the employee's actions or behaviours are creating a position where they may be placing harm on themselves or others.

12.1.1 TRAINING AND QUALIFICATIONS

Goose Mechanical Inc. will strive to ensure that employees are trained in all matters that are necessary to protect the health and safety which begins work at commencement of employment or when he/she is moved from one work activity or worksite to another that differs with respect to hazards, facilities or procedures.

Goose Mechanical Inc. will ensure that no worker is permitted to perform work unless the worker has the knowledge, has been trained, and has sufficient experience to perform the work safely and in compliance with the OH&S Act and Regulations; or is under close and competent supervision. Training will include:

- Procedures to be taken in the event of a fire or other emergency.
- The location of first aid facilities.
- Identification of prohibited or restricted areas.
- Precautions are to be taken for the protection of the worker from physical, chemical or biological hazards.
- Any procedures, plans, policies and programs that the employer is required to develop pursuant to the act or any regulations made pursuant to the act that applies to the worker's work at the place of employment.
- Any other matters that are necessary to ensure the health and safety of the worker while the worker is at work.

Goose Mechanical Inc. will ensure that all workers are informed of our program, and appropriate training is conducted and communicated to workers prior to commencing work.

12.1.2 PHYSICAL DEMANDS ANALYSIS

A physical-demands analysis (PDA) is a systematic procedure to qualify and evaluate the physical, cognitive, and environmental demands of a job's essential and non-essential tasks. Often a PDA may be used for an employee that is returning to work from leave for an injury or medical reasons. The analysis will identify the essential and non-essential physical components relating to a job task to ensure that employees are placed with appropriate duties, especially when returning from an injury or medical leave. Benefits of a PDA include:

- Evaluation of a job task or duty.
- Identifies areas for risk of injury or illness, or safety concerns.

12.1.3 MONITORING & SUPPORT

Goose Mechanical Inc. will advise local health care providers or clinics specializing in Occupational Health by providing them with the necessary documents stating that we are able to support injured employees who are unable to perform regular duties with modified work.

Goose Mechanical Inc. will work with the healthcare provider and employee to ensure that any modified work is consistent with the medical restrictions as advised by the healthcare provider.

Goose Mechanical Inc. will monitor all employees for any unsafe behaviour on the worksite. If Goose Mechanical Inc. feels that an employee exhibiting unsafe behaviours is not fit for duty or an employee expresses concerns regarding restrictions for job-specific tasks/duties, discussions and arrangements will be made to find suitable alternative duties for the employee. Employee Assistance programs and access to objective professional advice may be offered for those with limitations. A leave of absence for rehabilitation purposes can be discussed with Goose Mechanical Inc. as well.

Goose Mechanical Inc. reserve the right to implement a possible future requirement for all employees, contractors and/or subcontractors to participate in a formal Fitness for Duty program that would include a physical agility-testing component.

12.1.4 DOCUMENTATION

Goose Mechanical Inc. will strive to keep records of each incident that affects a worker regarding any modified work. This information will be kept confidential and only be accessible by persons required to perform their job. The records will contain:

- Date, time, location of the incident that resulted in an injury.
- Name of the employee affected.
- Brief description of the injury.
- Causes of the injury and first aid treatment received (if any).
- Any communication between Goose Mechanical Inc. and employee.
- Workers compensation and medical records.

12.1.5 LIGHT DUTY WORK AVAILABLE

- Site maintenance.
- Clean-up.
- Vehicle inspections.

12.1.6 OFFER OF MODIFIED WORK FORM

Offer of Modified Work

Employee Name: _____ Case Number: _____

In keeping with our policy to consider suitable employment to employees unable to perform their regular duties, we are offering the following modified work placement.

The Modified Position (name of position and department): _____

The duties that you will be required to perform are as follows:

_____

_____

_____

_____

The Modified position hours of work. Start time: _____ End time: _____

The Length of the modified position. Start date (dd/mm/yr): _____ End date (dd/mm/yr): _____

Your rate of pay will be _____. The length of this modified work placement will be for the authorized period. We will continually review your progress and adjust the length of this placement as required, based on relevant medical information.

During this modified work placement, you will be supervised by (name of supervisor): _____

If you have any concerns or difficulties please notify your supervisor or myself immediately.

_____, will also ensure that you are only performing the duties as outlined above.

We also request that you meet with _____, Case Coordinator, once a week to review your progress.

☐ Offer Accepted Date: _____

☐ Offer Rejected Date: _____

Supervisor Signature: _____ Case Coordinator: _____

12.1.7 NOTICE OF MODIFIED WORK AVAILABLE

Notice of Modified Work Available

Date: _____ Date of Injury: _____

Employee Name: _____

Our Company is pleased to support a formal injury management program and Return to Work Program. As part of our program, we have modified or alternate duties available for our injured employees.

Your support in defining any temporary restrictions or functional limitations is key and will help us provide the most suitable duties during the employee's recovery. Attached is a **Health care Provider Evaluation and Return to Work Recommendations** form that we ask you kindly complete to define these restrictions/limitations.

Under your direction, we will ensure that the Modified Work offered to the injured employee is achievable, safe, constructive and productive to our Company.

Modified Duties that the Company can offer to the injured worker, depending on your assessment and instructions, may include:

_____

_____

_____

_____

Our Company will work collaboratively with an assigned WCB Case Coordinator to ensure that the injured employee's rehabilitation back into their regular duties and progress is tracked.

Any costs incurred with completing the attached Evaluation is to be invoiced to the Company directly.

If you have any concerns or difficulties please contact the injured employee's Supervisor or overseeing Safety Representative immediately.

Supervisor or Safety Representative: _____

Phone Number & Email: _____

Company Billing Address: _____

_____

Additional Comments/Notes:

_____

_____

_____

Supervisor/Safety Rep. Signature: _____ Date: _____

12.1.8 HEALTH CARE PROVIDER EVALUATION- RETURN TO WORK RECOMMENDATIONS

Healthcare Provider Evaluation and Return to Work Recommendations

Employee's Name (Last)	First Name	Middle Initial
Department	Supervisor's Name	Date of Injury/Illness

THE FOLLOWING IS TO BE COMPLETED BY ATTENDING PHYSICIAN / HEALTHCARE PROVIDER

I saw and treated this patient on _____ date _____ and based on the patient's current medical problem:

- ☐ a. He/She is totally incapacitated at this time. Patient will be re-evaluated on : _____ date _____
- ☐ b. Recommend his/her return to work with no limitations on: _____ date _____
- ☐ c. He/She may return to work on _____ date _____ based on the following restrictions:

SECTION 1

In an average work day the patient may: _____

Please indicate the **ABILITIES** that apply, include additional details in section 3:

Walking	Standing	Sitting	Lifting from Floor to Waist	Lifting from Waist to Shoulder
☐ Full Abilities	☐ Full Abilities	☐ Full Abilities	☐ Full Abilities	☐ Full Abilities
☐ Up to 100 m	☐ Up to 15 mins	☐ Up to 30 mins	☐ Up to 5 kg	☐ Up to 5 kg
☐ 100-200 m	☐ 15 - 30 mins	☐ 30 mins - 1 hour	☐ 5 - 10 kg	☐ 5 - 10 kg
☐ Other (specify below):	☐ Other (specify below):	☐ Other (specify below):	☐ Other (specify below):	☐ Other (specify below):

Stair Climbing	Ladder Climbing	Crouching/Kneeling	Notes:
☐ Full Abilities	☐ Full Abilities	☐ Full Abilities	
☐ Up to 5 steps	☐ 1 - 3 steps	☐ Up to 5 mins	
☐ 5 - 10 Steps	☐ 4 - 6 steps	☐ 5 -10 mins	
☐ Other (specify below):	☐ Other (specify below):	☐ Other (specify below):	

SECTION 2

Please indicate the **RESTRICTIONS** that apply, include additional details in section 3:

Bending and twisting	Work at or above shoulder	Limited use of wrist(s)	Limited use of hand(s)	
☐ Repetitive motion of (specify body part)	☐	☐ Left ☐ Right	Left	Right
			☐ Gripping	☐
			☐ Pinching	☐
			☐ Other	☐

SECTION 3

Additional instructions or limitations due to prescribed medications, psychological or environmental conditions:

The above limitations are in effect until : _____ or until the patient is re-evaluated on : _____

Physicians Name (Print)_____ Physicians Signature _____ Date _____

Patients Authorization to Release Information

I hereby authorize my attending physician and/or hospital to release pertinent information acquired in the course of my examination or treatment for the above injury/illness to my employer or his representatives.

Patient's Name (print) Patient's Signature Date

To assist in the successful rehabilitation of injured/ill workers. We offer modified duties available. Please contact the Supervisor listed on the aforementioned page if you have any questions or concerns.
Any costs incurred to complete this form is to be invoiced to the Company directly.

12.2 PANDEMIC PREPAREDNESS & CONTINGENCY PLAN

With globalization, the threats of new infectious diseases are a growing concern. When a new kind of virus spreads quickly from person to person throughout the world, it can become a pandemic. A pandemic is not a physical disaster. It has unique characteristics that require the implementation of activities to limit contact, including a restriction of services, movement, quarantine and closure of public areas.

The Public Health Agency of Canada (PHAC) states that during an outbreak, it would be appropriate for employers to plan for a total workplace absenteeism rate of between 20% and 25% during the peak two-week period with lower rates in the preceding and subsequent weeks. It is essential to know that a pandemic is expected to come in 2 or 3 waves about 3 to 9 months, separating each outbreak, and each wave is expected to last approximately 6 to 8 weeks.
Apart from employee absences, a pandemic may have other impacts on company operations that include:

- shortage or delay of materials/supplies, especially if imported by air freight or by boat,
- professional services unavailable (such as inspections, permits, etc.)
- availability of services from sub-contractors may be limited,
- demand for service increases or decreases.

12.2.1 ASSIGN A PANDEMIC DISEASE PLAN COORDINATOR

Goose Mechanical Inc. has identified a pandemic disease plan coordinator, and they will be responsible for dealing with disease issues and their impact at the workplace. This will include contacting the local health department and health care providers in advance and developing and implementing protocols for response to ill individuals.

12.2.2 RESPIRATORY HYGIENE

Personal hygiene can effectively minimize the transmission of influenza and other illnesses and should include:

- Covering the nose and mouth when sneezing or coughing
- Disposing of used tissues immediately
- Washing hands frequently
- Keeping hands away from eyes, nose and mouth

12.2.3 HAND WASHING & HYGIENE

Hand washing (with warm soap and water, alcohol-based hand rub, or antiseptic handwash) is the single most effective measure to reduce the risks of transmitting infections. Handwashing prevents the spread of infectious diseases, including influenza. The influenza virus is readily inactivated by soap and water. Waterless alcohol-based hand sanitizers can be used as an alternative to hand washing and are useful when sinks or warm running water is limited.

Goose Mechanical Inc. will ensure that proper handwashing and the use of hand sanitizers be encouraged by supervisors. Handwashing facilities, hand sanitizers, tissues, no-touch trash cans, hand soap and disposable towels will be provided by Goose Mechanical Inc..

12.2.4 TRAINING

Employees will be trained on health issues of the pertinent disease to include prevention of illness, initial disease symptoms, preventing the spread of the disease, and when it is appropriate to return to work after illness. Disease

containment plans and expectations will be shared with employees. Communicating information with non-English speaking employees or those with disabilities has been considered and will be available if required.

12.2.5 MONITORING EXTERNAL COMMUNICATIONS

The pandemic disease plan coordinator will actively monitor the following information sources to identify any emerging public health issues, including pandemics:

- World Health Organization (www.who.int)
- US Department of Health & Human Services (http://www.hhs.gov)
- Centre for Disease Control (http://www.cdc.gov/)
- Pandemic Flu (www.pandemicflu.gov)
- Public Health Agency of Canada (www.phac-aspc.gc.ca)

12.2.6 TRIGGERS FOR PLAN ACTIVATION

In a pandemic situation, it is critical that Goose Mechanical Inc. triggers the contingency plan as soon as possible. When 15% of employees are affected and off work, the pandemic contingency plan will trigger, and essential control measures will be put into place. This will include controls such as:

- Flexible work options
- Alternative staffing arrangements
- Cross-training

12.2.7 CROSS-TRAINING

All employees with potential occupational exposure that are considered key employees will require another worker to be cross-trained in their role. This approach will provide more flexibility in managing the workforce, and it is beneficial for employees as it helps them learn new skills and help critical positions that can directly be negatively affected by a Pandemic. In a worst-case scenario where cross-trained employees are also affected by the pandemic, Goose Mechanical Inc. will plan for possible requirements of new staff to maintain critical services.

12.2.8 PANDEMIC OPERATIONS

Pandemic influenza presents a new biological hazard in the workplace. Goose Mechanical Inc. estimates that in a pandemic situation that operations and business functions will continue. This is based on the assumption that absenteeism will be lower than 35%.

12.2.9 WORK AT HOME

Flexible work policies have been developed and will be available to workers in the event of a pandemic. Workers are encouraged to stay at home when ill, care for sick family members, or care for children when schools close, without fear of reprisal.

Telecommuting, working at home, and the use of offsite locations are valuable tools that Goose Mechanical Inc. will use to contain the spread of illness at work sites during a public health emergency.

12.2.10 CONTINUATION PLAN

A pandemic business checklist should be prepared so that if significant absenteeism or changes in business practices are required, business operations can be effectively maintained.

12.2.11 IMMUNIZATION

Workers are encouraged to obtain appropriate immunizations to help avoid disease. Goose Mechanical Inc. will grant time off work to employees so that they can obtain vaccines when they become available in the community. Also, annual influenza vaccinations help build resistance to influenza strains and prevent illness, and access will continue to be supported by Goose Mechanical Inc..

12.2.12 ISOLATION DURING ILLNESS

Employees should stay home if they are unwell
Isolation of individuals during an illness prevents the spread of disease through the workplace. Isolation periods would be based on government guidance or recommendations from Health Services.

12.2.13 MANAGEMENT OF CASES AT WORK

If an employee feels ill, or if someone observes that a person is exhibiting symptoms associated with a public health emergency, the Pandemic Disease Plan Coordinator will need to be contacted. The coordinator will then:

- Avoid direct contact with the person by managing the process over the phone if possible
- Confirm symptoms with the employee to determine if it is a suspect case
- Assist the employee in leaving the worksite, avoiding the use of public transportation if possible, and contact a health professional as appropriate
- Consider identifying other individuals who have had recent contact with the suspect case and consider requiring these employees or contractors to return home
- Ensure the employee's work station is cleaned and disinfected
- Continue to monitor the health of co-workers in the work area
- Check with the suspect case employee during a work absence and confirm appropriate criteria for return to work

12.2.14 TRAVEL

During a public health emergency, Pandemic Disease Plan Coordinator will review travel plans within their departments and regions and limit travel as appropriate. The Pandemic Disease Plan Coordinator will monitor travel advisories associated with public health concerns. Travel advisors will be communicated to employees to avoid the potential for travellers to be stranded overseas. For employees returning from a restricted area, appropriate health monitoring and quarantine measures may be implemented. The Pandemic Disease Plan Coordinator will assist in this process.

12.2.15 INTERNAL COMMUNICATION

Key contacts, a chain of communications and contact numbers for employees, and processes for tracking business and employee status will be developed. The Business continuity plan in the appendix will be used to identify internal communication systems.

12.2.16 EXTERNAL COMMUNICATION

A procedure has been developed to notify key contacts, including both customers and suppliers, in the event of an outbreak that has impacted Goose Mechanical Inc.'s ability to perform services. This procedure includes notification to customers and suppliers when operations resume.

12.2.17 SOCIAL GATHERINGS

Social distancing, including increasing the space between employee work areas and decreasing the possibility of contact by limiting large or close contact gatherings, will be considered. In addition to protecting our employees, Goose Mechanical Inc. will minimize employee contact with others. This will be achieved by:

- Staffing the office with two members that will utilize separate entrances and communicate electronically.
- Utilizing phones, video conferencing, email, and the internet to conduct business as much as possible.
- Avoid unnecessary travel
- Arrange for work at variable hours (staggered shifts) and working alone to avoid unnecessary exposures
- Putting any projects on hold that are directly related to facilities treating individuals that are recovering from the illness/influenza pandemic.

12.2.18 CLEANING

Clean all areas that are likely to have frequent hand contact (like doorknobs, faucets, handrails) periodically and when visibly soiled. Work surfaces will also be cleaned frequently using normal cleaning products. Goose Mechanical Inc. ultimately desires to minimize the spread of pandemic influenza or illness. Our strategies will include:

- Practice good personal hygiene and workplace cleaning habits,
- If an employee becomes ill, we will clean the employee's workstation and sanitize all materials, tools, surfaces that may have been contacted. All clean up must be completed with appropriate PPE to prevent further infection to others.

12.2.19 PLAN REVIEW & TESTING

The plan and emergency communication strategies will be periodically tested at least annually to ensure it is effective and workable.

12.2.20 LESSONS LEARNED

Following a pandemic event, the person responsible for the implementation of the plan will identify learning opportunities and take action to implement any corrective actions. These corrective actions will also be shared with all employees at the next company safety meeting.

12.2.21 COMMUNICATION AND MONITORING

Goose Mechanical Inc. will monitor pandemic activity utilizing online and media resources from Health Services, Health Canada, the World Health Organization (WHO) alongside local community bulletins.

12.2.22 PROTECTION

Goose Mechanical Inc. ultimately desires to minimize the spread of pandemic influenza or illness. Our strategies will include:

- Restricting workplace entry of people with symptoms of illness.
- Practice good personal hygiene and workplace cleaning habits,
- Increase social distancing (avoid face-to-face contract),
- Manage employee who becomes ill at work,
- Manage employees that travel,
- Include sanitizers in working areas.

12.2.23 PROTECTION MEASURES

Goose Mechanical Inc. will restrict the entry of people with pandemic influenza or illness at the workplace by:

- Putting up notices at entrances advising employees and visitors not to enter if they have any symptoms,
- Encourage employees not to come to work when they are ill, particularly if they are exhibiting symptoms relating to influenza/illness pandemic.
- Provide information to employees on the pandemic illness/influenza, signs/symptoms, and how to stay well or treat during an outbreak. See Attachments
- Goose Mechanical Inc. will have available at the workplace masks to give to employees that may develop symptoms of the illness/influenza outbreak while at the workplace.
- Include a quarantine duration for any ill employees prior to returning to work.

Additional protection measures implemented during a period of a pandemic may include:

- Not permitting the entrance of any confined or restricted space, as improperly ventilated areas that an infected person may have visited, could still be transmittable.
- All necessary paperwork will be transmitted electronically
- Encourage the use of electronic submission, communication and sharing of work-related matters to avoid personal contact between those that are affected by the illness/influenza and those that are not.
- As well, Goose Mechanical Inc. will reinforce the importance of personal hygiene measures. Additional protection regarding workplace cleaning will be introduced to minimize transmission through environmental sources that include counters, railings, tools, office equipment, etc.

12.2.24 MANAGING ILL EMPLOYEES

If a worker feels ill or is observed with symptoms of the illness/influenza pandemic, Goose Mechanical Inc. will:

- Over the phone, if possible, inquire with the employee in question if they are experiencing symptoms relating to the illness/influenza outbreak.
- Have employees wear a mask to protect others and ask the employee to leave work immediately, go home and contact a health care provider.
- Identify the potentially infected employee's recent movements and identify individuals that they may have been in contact with an individual suspected of the illness/influenza.
- Clean the employee's workstation and sanitize all materials, tools, surfaces that may have been contacted. All clean up must be completed with appropriate PPE to prevent further infection to others.

- Maintain contact with the potentially affected worker to discuss the duration of absence, progress in recovery, and procedure for returning to work.