



Health & Safety Program

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Great Falls Construction

Health & Safety Program

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Section 1: Corporate Health & Safety Policy Statement

Policy Statement

Great Falls Construction is committed to providing a healthy and safe working environment for every employee. Toward that end, an established Health & Safety Program guides the company in all operations. All personnel will observe the rules and procedures in this program, as a moral and legal responsibility and as a sound business policy.

It is the company's goal always to maintain an effective safety program to incorporate procedures intended to prevent accidents, injuries and illnesses. All members of management and supervision are charged with the responsibility of preventing incidents or conditions that could lead to occupational injuries or illness and for developing the proper attitude and behavior of employees toward accident prevention. This includes instructing employees in the recognition of hazards and ensuring that all operations are performed with the utmost regard for safety.

While the ultimate success of a safety and health program depends upon the full cooperation of each individual employee, it is management's responsibility to provide a safe environment in which to work. Health and safety must be considered an integral part of quality control, cost reduction and job efficiency. Every supervisor will be held accountable for the safety performance demonstrated by employees under his or her supervision.

The Health & Safety Program is designed to reduce the number of accidents and injuries to a minimum. Unfortunately, when accidents occur every department of our operation, as well as the lives of our employees and their families, are negatively impacted. Therefore, our Health & Safety Program shall be interwoven into every phase of the business and will be enforced uniformly, consistently and swiftly.

Jonathan Smith
President

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Purpose

The purpose of the Corporate Health & Safety Policy Statement is to formally communicate the position of Great Falls Construction on Occupational Health and Safety. Our goal is clearly express to all employees the importance of proper safety procedures and employee participation at all times.

Scope

The provisions of the Great Falls Construction Health & Safety Plan and Corporate Health & Safety Policy Statement applies to all divisions, subsidiaries and companies of this corporation.

Responsibilities

Safety is a condition of employment at Great Falls Construction.

Management is accountable for preventing workplace incidents, injuries and illnesses. Management will provide support of safety program initiatives. Management will consider all employee suggestions for achieving a safer, healthier workplace. Management also will keep informed about workplace safety and health hazards and will regularly review the company Health & Safety Program and policies.

Supervisors are responsible for implementing safe work practices and for training workers. Supervisors must enforce applicable OSHA and company safety rules and work to eliminate or reduce hazardous conditions to the greatest extent possible. Supervisors shall lead safety efforts by example.

All employees are expected and encouraged to participate in all health and safety program activities including: reporting hazards, identifying and correcting unsafe work practices, attending safety training, reporting near miss accidents, and reporting accidents immediately to their supervisor. When in doubt about a situation, condition or procedure, ask your supervisor.

Records

A copy of this Corporate Health & Safety Policy Statement will be posted in visible locations where all employees and subcontractors can read the Policy.

Section 2: Safety Program Responsibilities

Purpose

The purpose of this policy is to provide a complete and clear description of the responsibilities for all employees and subcontractors as it applies to occupational health and safety. It is important for all employees to understand not only their responsibilities but also the responsibilities of all employees.

Procedure

All levels of management and supervision are charged with the responsibility of preventing conditions that could lead to occupational injuries or illness. While the ultimate success of our Health & Safety Program depends upon the full cooperation of each employee, it is management's responsibility to implement and enforce safety and health rules and procedures. Also, management must provide effective training and education programs which address hazards associated with the workplace.

Responsibilities

Corporate Management

- Communicate their commitment to health and safety.
- Implement the policies and procedures detailed in the Great Falls Construction Health & Safety Program.
- Provide opportunities for supervisors and employees to identify hazards associated with workplace tasks.
- Participate in addressing any concerns of violations resulting from an internal corporate safety inspection, insurance company audit, OSHA visit or other project safety review.
- Ensure compliance with OSHA regulations, employee safety training requirements, investigations associated with workplace accidents, follow all reporting requirements for workplace injuries or accidents.

Office Managers

- Perform and implement any health and safety responsibilities delegated by management.
- Provide necessary and requested paperwork to the field.
- Fulfill all recordkeeping and documentation requirements in a timely manner.

Field & Shop Managers

- Enforce all safety policies and procedures.

- Ensure all accidents are reported, fully investigated, and that any necessary corrective actions are implemented.
- Conduct and document monthly safety inspections. The monthly inspections should include environmental, health, safety and general compliance concerns. In addition, any deficiencies will be addressed and corrected.
- Follow-up on any safety concerns reported by the crew and implement corrective actions.
- Provide safety training as required by OSHA or established procedures for the project.
- Prepare and distribute all safety related materials to crew members.
- Investigate all accidents, injuries, fires, property damage, environmental or other safety incidents, and provide reports in a timely manner.
- Provide and distribute all required personal protective equipment, fire protection equipment, and other safety related items to meet all project needs.
- Take immediate corrective action when unsafe conditions are identified.

Employees

- Read, ask any questions, understand and follow all company safety policies and procedures.
- Perform duties in a safe manner.
- Report any unsafe situations, unsafe behaviors, and unsafe conditions to your supervisor.
- Report all accidents and near misses immediately.
- Wear all personal protective equipment that is required.
- Inspect and maintain all personal protective equipment. Ask for replacement items if defects are identified.
- Set a good example for those you work with and follow all safety requirements.
- Participate in safety discussions and training.

Safety Director

- Establish safety policies and procedures.
- Advise management and supervisors on safety policy changes or safety concerns.
- Communicate safety policies to all employees.
- Monitor regulatory changes as they relate to safety policies and procedures.
- Track and communicate safety performance.
- Perform periodic site inspections.
- Identify and evaluate job hazards and provide for any recommended corrective actions.
- Make safety equipment recommendations.
- Evaluate the enforcement of safety rules and steps take at the supervisory level to reprimand if employees violate safety requirements.
- Monitor overall effectiveness of the Health & Safety Program and provide management with any recommendations for improvement.

Section 3: Safety Violations & Disciplinary Actions (Performance Management)

All employees are expected to meet Great Falls Construction's standards of work performance. Work performance encompasses many factors, including attendance, punctuality, personal conduct, job proficiency and general compliance with the Company's safety expectations, policies and procedures.

If an employee does not meet these standards, the Company may, under appropriate circumstances, take corrective action, other than immediate dismissal.

The intent of corrective action is to formally document problems while providing the employee with a reasonable time within which to improve performance. The process is designed to encourage development by providing employees with guidance in areas that need improvement such as poor work performance, attendance problems, personal conduct, general compliance with the Company's policies and procedures and/or other disciplinary problems. However, the Company does not intend this to be a rigid process and reserves the right to skip steps whenever it deems appropriate based on the issues and the history involved in each individual case.

Performance Management Program Schedule

Once an employee has successfully completed his/her initial employment period, of 6 months, the employee will receive constructive work reviews on the following schedule:

Full-time Exempt, Salaried and Full Time Non-Exempt, Hourly Employees: Reviews will be conducted every four (4) months, unless otherwise specified by the Company President or Human Resources Department.

Part-time Employees: Reviews will be conducted every four (4) months, or as specified by the Company President, Human Resources Department, and/or the employee's supervisor finds suitable and appropriate.

Under usual and appropriate circumstances, employees should receive a performance review annually. If an employee's job responsibilities change substantially at any time after the performance review, however, additional reviews may be performed before the next regularly scheduled review, after the new assignment has begun.

Verbal and Written Warnings

The supervisor, Human Resources Department, or Company President should discuss the performance or conduct issues with the employee at the earliest possible time, making clear what corrective action the employee can take to resolve the concern. The supervisor should document the verbal conversation in a written document, which should be placed in the employee's file in the Human Resources Department.

If the employee fails to take the necessary corrective action, and/or the concern persists, the supervisor should discuss the problem and present a written warning to the employee, in the presence

of a Human Resources representative. This interaction and documentation should clearly identify the problem and outline a course of corrective action within a specific time frame. The employee should clearly understand both the corrective action and the consequence (e.g., termination) if the problem is not corrected or reoccurs. The employee should acknowledge receipt of the warning and include any additional comments of their own before signing it. A record of the discussion and the employee's comments should be placed in the employee's file in the Human Resources Department.

Employees who have had formal written warnings are not generally eligible for salary increases, bonus awards, promotions, or transfers during the identified warning period.

Section 4: Accident Reporting, Investigations, and Recordkeeping

PURPOSE

The purpose of this section is to provide a guide for reporting accidents and events that should be documented to prevent confusion or inaccurate details as time passes. This is to help the person investigating to gather information following an accident or injury that requires immediate treatment, OSHA reporting, insurance claims or as a result of an incident involving property damage or pedestrian injury.

In addition, we hope to collect information to determine the root causes of an accident and develop procedures to prevent it from happening again in the future.

SCOPE

This procedure applies to all operations within the company.

DEFINITIONS

Accident: An unintended occurrence that is either caused or may have caused personal injury, property damage, or interrupts production.

RESPONSIBILITY

Managers, supervisors, and project managers will document and complete an accident or injury investigation in a written report. The report will be returned to the office and will be distributed to the appropriate individuals in the company.

ACCIDENT MANAGEMENT PROCEDURE

The goal at Great Falls Construction is to plan our work and implement procedures to prevent accidents from occurring in the first place.

Accident Prevention. Successful accident prevention requires four fundamental activities:

1. Recognize and eliminate or control hazards to the greatest extent possible.
2. Study work methods and procedures.
3. Educate and train employees.
4. Analyze an undesirable incident or accident thorough investigation.

If an accident does occur we expect the following items to be considered or implemented.

- Report all accidents and injuries to your supervisor or manager, regardless of severity.
- When an injury occurs, check to see if the injured person needs medical attention beyond first aid. If medical attention is needed, take the injured person to the designated Occupational

Health facility for the project. If immediate and urgent medical attention is necessary, call 911 (or designated phone number for the project) for emergency services.

- Once the injured person has been cared for, any action necessary to prevent a similar injury or accident must be implemented.

INCIDENT INVESTIGATION

- An Accident & Injury Investigation Form (attached below) must be completed for every accident or injury. This includes first aid cases.
- If the Investigation cannot be completed before treatment, the form will be completed as soon as practical.
- When the injured individual returns to work, he or she must turn in all paperwork from the doctor or treatment facility to their supervisor.
- The person completing the Accident & Injury Investigation Form must return the form to the Human Resource Manager within 12 hours of the incident.
- Based on the information gathered and the medical treatment provided, a First Report of Injury may be completed and a claim filed with Workers' Compensation carrier.
- All injuries that are classified as OSHA Recordable will be entered in the OSHA Accident & Injury Log.
- The project supervisor shall conduct a thorough investigation of every accident involving an employee injury or property damage. This investigation shall be concerned with facts and circumstances – not with finding fault.
- The goal of an incident investigation is to locate and identify unsafe conditions or unsafe practices and to correct them. Consequently, one of the most important parts of the investigation is to determine the cause of the incident, the steps taken to correct the conditions, and the follow up actions needed to ensure there will be no reoccurrences.
- Pictures are very helpful for documenting the details of an incident. Photos should be captured immediately after incident without disturbing the incident site as much as possible.
- **Investigation and Analysis.** A complete and accurate investigation and analysis of an injury, accident or near miss provides an opportunity to address hazards that may not be obvious, or that result from a combination of circumstances.

SERIOUS INJURIES OR DEATH

Employers must report any worker fatality to OSHA within 8 hours of the occurrence.

Employers must report any worker injuries that result in an amputation, loss of an eye, or in-patient hospitalization within 24 hours of the occurrence.

This report can be done in the following ways:

- Call the nearest OSHA office during normal business hours.
- Call the OSHA 24-hour hotline at 1-800-321-6742 (OSHA).
- Report online through the OSHA.gov website.

RECORDKEEPING

- All paperwork resulting from an accident or injury will be maintained in the corporate office.
- Any correspondence with OSHA shall remain on file in the corporate office.

Incident Investigation Form

INDIVIDUAL INFORMATION		
Individual's Name (First, Last):	Company:	
Mailing Address:		
City:	State & Zip:	
Phone Number:	DOB:	<input type="checkbox"/> Male <input type="checkbox"/> Female

GENERAL INCIDENT INVESTIGATION		
Name of individual completing the report:		
Date of incident:	Time of accident: <input type="checkbox"/> AM <input type="checkbox"/> PM	Date of report:
Type of incident: <input type="checkbox"/> Lost time <input type="checkbox"/> Medical only <input type="checkbox"/> First aid <input type="checkbox"/> Near miss <input type="checkbox"/> Other Specify:		
Date employer was notified:		
Describe location where accident occurred (Project Name and Location):		
Supervisor's Name:	Manager's Name:	
When was supervisor notified? <input type="checkbox"/> Immediately <input type="checkbox"/> Later Explain:		
Were emergency services called? <input type="checkbox"/> YES <input type="checkbox"/> NO		
Public entity(s) that arrived:		
Describe work being performed during incident:		
How long has the individual been performing these duties?		
Was work within normal job duties?		

VEHICLE INCIDENT

Was this a vehicle incident? YES NO (If "no" skip this section)

Other Driver(s) involved:

Company (if applicable):

Registration and insurance documentation collected (and attached)? YES NO

INCIDENT INVESTIGATION

(DESCRIBE THE ACCIDENT IN AS MUCH DETAIL AS POSSIBLE)

Contributing factors: Human error Unsafe conditions Weather Equipment Other

Explain:

Type of equipment, tool, vehicle, etc. involved:

Was the right tool or equipment being used for the job?

List any outside agencies that may be involved in this investigation (police, insurance, customer, subcontractor, etc.):

Was the location inspected immediately after incident? YES NO Time of Inspection:

Number of photos taken of location (Photos should be taken in the state in which in incident occurred):

PREVENTION

Safety device available? Yes No / In use? Yes No / In use correctly? Yes No

Describe the safety appliance:

Was a job safety analysis or work activity plan performed for the job? Yes No

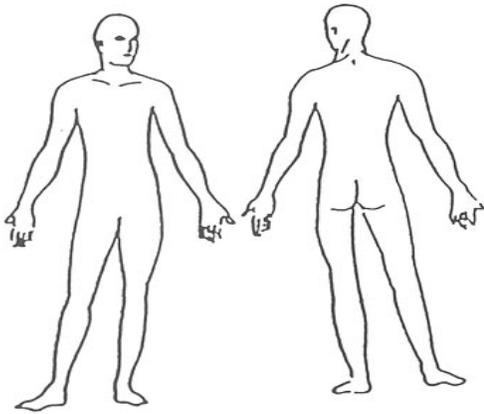
Explain and attach a copy (if Yes):

What has supervision initiated to prevent this accident from recurring?

Has this accident been discussed with employees and corrective action communicated? Yes No

How?

Please identify the area in which you received an injury and any areas where you are feeling pain:



Do you have any suggestions to prevent this accident from recurring?

Do you feel any discomfort? Yes No

Please describe the type of discomfort you are feeling:

Did injured individual seek medical treatment? Yes No

Date of visit:

If yes, location of medical facility:

How was the injured individual transported?

Drove Self Ambulance Transported by:

Medical treatment received:

WITNESS(ES) STATEMENT OF ACCIDENT

Witness #1

Please describe your observation of the accident:

Do you have any suggestions to help prevent future accidents such as this?

Witness Signature:	Date:
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Witness #2

Please describe your observation of the accident:

Do you have any suggestions to help prevent future accidents such as this?

Witness Signature:	Date:
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For Human Resources Use Only:

Date Report Received:

Reviewed by: Name _____ Signature: _____

Reviewed by:

- Cindy Smith Initials: _____
- Jon Smith Initials: _____
- Darren Shiers Initials: _____

Section 5: Drug Free Workplace Policy

It is the policy of Great Falls Construction to maintain a drug and alcohol free workplace. No employee shall be allowed to work while under the influence of drugs or alcohol.

The company prohibits the use, possession, sale, purchase, manufacture, distribution, transfer or consumption of alcohol and all illegal drugs, including legally regulated drugs.

Any employee who is seen using drugs or alcohol during working hours shall be subject to immediate suspension and possible termination of employment.

Any employee who is suspected of being under the influence of drugs or alcohol shall be immediately removed from the job site and driven to a safe location.

An employee who is using prescription drugs shall inform his/her supervisor so that his/her job requirements can be altered to minimize possible injury to the employee and other employees.

For complete details regarding expectations, company drug testing program, and procedures associated with the goal of a drug and alcohol free workplace, refer to the Great Falls Construction **Substance Abuse Policy** in Employee Handbook.

Section 6: Return to Work/Light Duty Policy

If an employee is injured at work, our goal is to get them the most appropriate treatment to facilitate a quick recovery. To do this, injuries must be reported in a timely manner. In addition, Occupational Health facilities will be utilized to manage and recommend the best course of action for the employee.

PROCEDURE

The goal is to reduce all injuries at work to the greatest extent possible. However, if an injury does occur, we want to prevent it from being severe enough to result in lost time from work. To do this, the company is committed to the following:

- Great Falls Construction will provide meaningful alternate or light duty work for each injured employee who is unable to return to his/her regular duty. The alternate or light duty work assigned will be within the restrictions placed on the injured employee by the treating physician.
- The injured employee, and their supervisor shall review and strictly adhere to any restrictions recommended by the treating physician.
- In the event an employee must lose time from work as a result of a workplace injury, the project supervisor shall conduct a thorough investigation of the incident, including:
 1. A review of the Accident & Injury Investigation Form to confirm it is complete and accurate.
 2. Conduct interviews with the injured employee and/or witnesses to the incident.
 3. Determine all factors including actions, procedures, and/or conditions that contributed to cause the injury.
 4. A determination of steps to be instituted to prevent recurrence.
 5. Communication to all members of the company – detailing the causes of the lost time injury and resulting procedural changes, (if any).

Section 7: Work Area Hazard Assessment

Job or Task Name: _____ JHA #: _____ JHA completed by: _____ Date: _____

1	Description of Task Steps (in sequence)	Potential Hazard(s)	Potential outcome of hazards	Risk, before control measures*		Safe Job Control Measures	Risk, after control measures*	
				P	S		P	S
1	Define Job or Activity	For Each Task Identify all of the hazards and consequences that could occur. Think about the inherent hazards of the material, equipment, or activity.	Identify consequences of hazards, what could go wrong; what is worst-case consequence.	P		Identify existing controls to eliminate or mitigate the potential hazard/consequence scenario. If the consequence is severe, use safe control or engineering controls and multiple controls to mitigate the risk.	P	
				S			S	
				PC			PC	
2				P			P	
				S			S	
				PC			PC	
3				P			P	
				S			S	
				PC			PC	
4				P			P	
				S			S	
				PC			PC	

5				P			P	
				S			S	
				PC			PC	
6				P			P	
				S			S	
				PC			PC	
7				P			P	
				S			S	
				PC			PC	
8				P			P	
				S			S	
				PC			PC	

*P=Probability; S=Severity; PC=Priority Code

Signature: _____

Save all completed forms electronically to the Project.

Section 8: Safety Education and Training

Education and training are important tools for informing supervisors, workers and managers about workplace hazards and controls so they can work safely and be more productive. Another role of education and training is to provide supervisors, workers and managers with a greater understanding of the health and safety program itself. This training allows them to contribute to its development and implementation.

Education and training provides employers and all employees with:

- The knowledge and skills needed to do their work safely and avoid the creation of hazards that could place them or others at risk.
- Awareness and understanding of workplace hazards and how to identify, report, and control these hazards.
- Additional necessary information through specialized training when their work involves unique hazards.

Various training may be needed depending on the roles assigned to employers or individual managers, supervisors, and workers. For example, some employees may need specific training to ensure they can fulfill their roles in providing leadership, direction, and resources for the health and safety program. Workers assigned specific roles in the program (e.g., incident investigation team members) may need training to ensure their full participation in those functions. Others may need specific skills training for a specialized piece of equipment or method of work.

Effective training and education can be provided outside a formal classroom setting. Peer-to-peer training, on-the-job training, and worksite demonstrations can be effective in conveying safety concepts, ensuring understanding of hazards and their controls, and promoting good work practices.

Effective steps toward providing training include the following:

- Provide program awareness training.
- Train employees, managers and supervisors on their responsibilities in the program.
- Train workers on their specific roles in the safety and health program.
- Train workers on hazard identification and controls.

Section 9: Hazard Communication (HAZCOM) Program

PURPOSE

It is the policy of Great Falls Construction to comply with all applicable regulatory standards for hazard communication as enacted by OSHA (29 CFR 1926.59 and 29 CFR 1910.1200).

Under this HAZCOM program, employees and subcontracted workers will be provided with the information necessary for the safe use, handling, and storage of hazardous chemicals.

This policy includes guidelines on identification of chemical hazards, employee training, and the preparation and proper use of container labels, placards and other types of warning devices. It is intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Revision 3.

DEFINITIONS

Carcinogen: A chemical is considered to be a carcinogen if it is determined to be a potential cancer-causing agent.

Chemical: Means any substance, or mixture of substances.

Container: Means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank or the like that contains a hazardous chemical. For the purpose of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Corrosive: A chemical that causes visible destruction of or alterations in living tissue by chemical action at the site of contact.

Explosive: A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure or high temperature.

Flammable Liquid: Any liquid having a flashpoint below 199.4°F (93°C). Flammable liquids are subdivided into 4 categories.

Flashpoint: The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when exposed to a flame.

Hazardous Chemical: Means any chemical which is classified as a physical hazard or a health hazard, simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Hazard Warning: Any words, pictures, symbols or combination thereof appearing on a label or other appropriate form of warning which convey the hazard(s) of the chemical(s) in the container(s).

Irritant: A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact.

Label: Any written, printed or graphic material displayed on or affixed to containers of hazardous chemicals.

Physical Hazard: A chemical that is classified as posing one of the following hazardous effects: explosive; flammable; oxidizer; self-reactive; pyrophoric; self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas.

Pictogram: Means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Several pictograms are designated under this standard for application to a hazard category. (See Appendix A of this Section for GHS pictograms).

Precautionary Statement: A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Safety Data Sheet (SDS): Written or printed material concerning a hazardous chemical.

Signal Word: A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. “Danger” is used for more severe hazards and “Warning” is used for the less severe.

Oxidizer: A chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Water-Reactive: A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

HAZCOM STANDARD PROCEDURES

Chemical Inventory.

Great Falls Construction maintains an inventory of all known chemicals in use at each project. The chemical inventory list shall be provided electronically through a shared company drive. In addition, paper copies will be printed and available on the jobsites.

Site specific hazardous materials brought onto the work site shall be added to the SDS notebook and to the posted chemical inventory list.

Container Labeling.

All chemicals on site shall be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. Any container not properly labeled should be given to the project supervisor for labeling or proper disposal.

Workers may dispense chemicals from the original container to a smaller secondary container so long as it is intended for immediate use. Any chemical left in a secondary container after work is completed must be returned to the original container.

No unmarked containers of any size are to be left unattended in the work area.

Great Falls Construction will rely on the manufacturer applied labels whenever possible, and will ensure that these labels are maintained. Containers that are not labeled or on which the manufacturer’s label has been removed will be relabeled.

The project supervisor shall ensure that each container is labeled with the identity of the hazardous chemical contained and any appropriate hazard warnings.

Safety Data Sheets (SDS).

SDS's shall be provided to all projects electronically through a shared company drive. In addition, paper copies will be printed and available on the jobsites.

The project supervisor shall review the SDS for a hazardous chemical with all affected employees (if they are not familiar with a product) before assigning employees to work with the chemical.

Employees working with a hazardous chemical may request a copy of the SDS. Requests for SDS's may be made to project supervisor.

Each SDS contains the following information and will have 16 sections:

1. Identification – Basic information about the chemical/product.
2. Hazard Identification – Describes the product's chemical hazards.
3. Composition/Information on Ingredients – Identifies what the product is made of, in chemical terms.
4. First Aid Measures – Gives appropriate steps for immediate response to exposure to the material.
5. Fire-Fighting Measures – Precautions or special instructions for fighting a fire when the material is present.
6. Accidental Release Measures – Appropriate instructions and warnings for responding to a spill of the material.
7. Handling and Storage – How to appropriately keep or move the material.
8. Exposure Controls and Personal Protection – PPE needed when handling the material.
9. Physical and Chemical Properties – Lists technical identifying details about the material.
10. Stability and Reactivity – Chemical details about the reactions the material may undergo.
11. Toxicology Information – Medical type details about the material's health effects.
(Routes of entry into the body and potential long-term effects).

Sections 12-16 cover information that is only needed for specific concerns or at specific times. (These sections are considered non-mandatory, but may be needed and helpful).

12. Ecological Information.
13. Disposal Considerations.
14. Transportation Information.
15. Regulatory Information.
16. Other Information.

Employee Training.

The project supervisor shall ensure employees are trained to work safely with hazardous chemicals prior to using or coming in contact with them.

Employees at each project site shall be trained to know about and recognize any hazardous chemicals being used at the site. New employees shall be trained as they are orientated at the beginning of their employment.

Employee training will include appropriate topics such as:

- Methods that may be used to detect a release of a hazardous chemical in the workplace.
- Physical and health hazards associated with chemicals on site.
- Protective measures to be taken.
- Safe work practices.
- Information of the Hazard Communication Standard including:
 - a) Labeling, pictograms (see Appendix A of this HAZCOM Program), and warning systems, and
 - b) An explanation of Safety Data Sheets (SDS's).

Personal Protective Equipment.

The project supervisor shall provide each employee with the required PPE that is appropriate for the chemical(s) to which he/she is being exposed.

Any employee found in violation of PPE requirements shall be subject to disciplinary action.

Emergency Response.

Any incident involving over-exposure or the spill of a hazardous chemical must be reported to the project supervisor at once.

The project supervisor shall be responsible for ensuring that proper emergency response actions are taken in over-exposure or spill situations.

Chemical Hazards of Non-Routine Tasks.

Employees shall be informed of any special tasks that may arise which would involve possible exposure to hazardous chemicals.

Review of safe work procedures and use of required PPE shall be conducted prior to starting such tasks.

Where necessary, signs and barricades shall be used to indicate the nature of the hazard involved.

Informing Other Site Workers about Known Chemical Hazards.

Information on hazardous chemicals known to be present shall be exchanged with other contractors and/or subcontractors on the project site. Employers shall be responsible for providing necessary information to their employees.

Subcontracted workers are required to adhere to the provisions of this HAZCOM Program.

Other on-site employers will be provided with a copy of the Great Falls Construction Hazard Communication Program upon request.

Posting Requirements.

Great Falls Construction will post information about OSHA's Hazard Communication Standard at each project site or in a location that is known and available to all employees.

PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis.

Appendix A - GHS Pictograms and Related Hazard Classes

GHS - Hazard Pictograms and Related Hazard Classes			
			
Exploding Bomb <ul style="list-style-type: none"> • Explosive • Self-reactives • Organic Peroxides 	Corrosion <ul style="list-style-type: none"> • Skin corrosion/burns • Eye damage • Corrosive to metals 	Flame Over Circle <ul style="list-style-type: none"> • Oxidizing gases • Oxidizing liquids • Oxidizing solids 	
			
Gas Cylinder <ul style="list-style-type: none"> • Gases under pressure 	Environment <ul style="list-style-type: none"> • Aquatic toxicity 	Skull & Crossbones <ul style="list-style-type: none"> • Acute toxicity (fatal or toxic) 	
			
Exclamation Mark <ul style="list-style-type: none"> • Irritant (eye & skin) • Skin sensitizer • Acute toxicity • Narcotic effects • Respiratory tract irritant • Hazardous to ozone layer (non-mandatory) 	Health Hazard <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive toxicity • Respiratory sensitizer • Target organ toxicity • Aspiration toxicity 	Flame <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-heating • Emits flammable gas • Self-reactives • Organic peroxides 	Biohazard <ul style="list-style-type: none"> • Biohazardous infectious materials

Section 10: Emergency Action Plan

An emergency response plan is designed to identify known and anticipated site specific hazards and/or hazardous materials not covered in this Health and Safety Plan. A project specific Emergency Action Plan will be developed for each project to address these and other site specific issues, to minimize dangers to employee safety, and to limit damage to equipment or property in an emergency situation.

GENERAL REQUIREMENTS

This plan shall address the following items:

1. Responsibilities
2. Notifications
3. Evacuation Routes
4. Assembly Points
5. Communications
6. Subcontractors

Types of hazards that would be considered and noted on an Emergency Action Plan include:

1. Fire & explosions
2. Release of hazardous chemicals, gases, vapors or fumes
3. Material spills
4. Severe weather situations
5. Flooding and water hazards
6. Power outages
7. Bomb threats, arson, illegal activities, violence
8. Radiation exposure
9. Fatality, catastrophic or multiple employees injured.

RESPONSIBILITIES

The project supervisor will develop the Emergency Action Plan specific to the hazards and conditions at the project. This Plan will be posted in appropriate locations and presented to all employees at the project.

NOTIFICATION

A method of most effectively notifying all employees of an emergency will be determined for each project. The method used will be quickly notifying all employee of an evacuation situation. Once the evacuation has begun, emergency response personnel will be contacted, as well as the corporate office.

EVACUATION ROUTES

During the development of the Emergency Action Plan, the most effective primary evacuation route shall be determined. In addition, a secondary evacuation route will be developed. These evacuation routes shall be the safest, quickest paths from the hazard to an area of safety.

ASSEMBLY POINTS

Each evacuation route shall lead to a pre-determined assembly area. This designated area is used to determine if everyone has evacuated the area and is accounted for following an emergency situation. No employee will leave the assembly point unless authorized to do so by their direct supervisor.

COMMUNICATIONS

The method to communicate with emergency response services will be most appropriate for each specific project and the specific site conditions.

SUBCONTRACTORS

The project supervisor shall coordinate the Emergency Action Plan with the owner, other contractors, subcontractors, and other personnel at the project. They will be made aware of the details of the Emergency Action Plan, project hazards, notification requirements in an emergency, evacuation routes, assemble points and any other applicable information.

A project specific Emergency Action Plan will be developed to address these and other site specific issues, such as:

1. The names, titles, and telephone numbers for emergency contact persons and agencies, owner representatives, and contractor or subcontractors.
2. Each phone capable of connecting to the emergency response personnel – normally 911 or local fire/medical responders shall be clearly identified and posted in a visible location near the phone.
3. Site control elements including site maps, communication procedures, and locations of occupational healthcare and emergency medical care facilities shall be available.
4. Special hazards that may be encountered on the project and precautions associated with those hazards.
5. Levels of Personal Protection Equipment required.
6. Fire, explosion and emergency response guidelines.
7. Site security.
8. Other safety concerns unique to the project.

Great Falls Construction shall not provide rescue teams for fire or emergency evacuations. These services shall be prepared and maintained by outside resources. The outside rescue team should be invited to the project when conditions at the project change.

Emergency Action Plan - Great Falls Construction

Job Site Name: _____

Street Address: _____ City: _____ State: _____

Emergency Phone Number: _____

Emergency Phone Number: _____

Project Names, Phone Numbers and Contacts:

Project Supervisor (GFC): _____ Phone: _____

Owner's Representative: _____ Phone: _____

Other: _____ Phone: _____

Project GPS Coordinates: _____

Designated Assembly Areas:

Form of Emergency Notification to be utilized on the Project:

Occupational Health Provider for the Project: _____

Address: _____ Phone: _____

Nearest Hospital: _____

Address: _____ Phone: _____

List of Identified Site-Specific Hazards, Hazardous Locations, or Activities of Concern:

Other Site-Specific Emergency Procedures:

Section 11: Lockout/Tagout/(Tryout) Program

PURPOSE

This program is written to ensure all Great Falls Construction employees and subcontracted workers are protected from unintended machine motion, machine start-up, or the unexpected release of stored hazardous energy that could cause injury. It shall be used to ensure that the machine and/or equipment is isolated from all potentially hazardous energy.

This program establishes minimum requirements for locking out and tagging of all energy controlling devices, such as valves, switches, and breakers when the unexpected energizing, start-up, or release of stored energy could cause harm to an employee.

SCOPE

This program applies to all authorized and affected employees as well as subcontracted workers that are working on or near a construction or maintenance activity under lockout/tagout/(tryout) procedures intended to control hazardous energy.

SUMMARY

Incidents resulting in significant injuries from electrical, mechanical, and/or pressurized equipment and systems have occurred in the construction industry due to incomplete planning for the work or task to be performed. Improper or omitted application of lockout and tagout equipment can also contribute to avoidable incidents in the workplace.

Work performed on temporary energized systems or those under construction is equally dangerous and important from the requirements of lockout/tagout as they are for machines and systems located in permanent facilities.

The key to the process of lockout/tagout is the isolation of all energy sources of a machine so there is no unexpected start-up or release of stored energy that could result in injury. Lockout does not mean placing the machine or equipment in the off position. Lockout requires the placement of an energy isolating device at specific locations to prevent any operation or startup. Tagout is a form of communication warning employees not to energize the machine or equipment.

DEFINITIONS

Affected Employee. An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized Employee. A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance.

Capable of Being Locked Out. An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it.

Energized. Connected to an energy source or containing residual or stored energy.

Energy Isolating Device. A mechanical device that physically prevents the transmission or release of energy.

Energy Source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Lockout. The placement of a lockout device or an energy isolation device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device. A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment.

Servicing and/or Maintenance. Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Tagout. The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Tagout Device. A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

Zero Energy State. The point at which machinery or equipment has **no energy** flowing to or from it and as a result, does not have the potential to cause accidental physical harm or injury if handled in this state.

RESPONSIBILITIES

Great Falls Construction firmly believes in protecting the health and safety of our employees. This responsibility begins with management providing support to properly implement this program. The success of the program requires active participation from all employees.

Only authorized employees who have received instruction and training on lockout/tagout procedures can lockout a piece of equipment. All other employees receive affected personnel training.

Management/Project Supervisor:

- Each project supervisor shall train new employees and periodically instruct all of their

employees regarding provisions and requirements of this lockout/tagout procedure.

- Each supervisor shall effectively enforce compliance of this lockout/tagout procedure including the use of corrective disciplinary action where necessary.
- Each project supervisor shall assure that the locks and devices required for compliance with the lockout procedure are provided to their employees.
- Prior to setting up, adjusting, repairing, servicing, installing, or performing maintenance work on equipment, machinery, tools or processes, the project supervisor shall determine and instruct the employees of the steps to be taken to assure they are not exposed to injury due to unintended machine motion or release of energy.

Authorized Employees:

- Only authorized employees may install lockout devices, tag machinery and equipment or remove their own locks and tags.
- Employees shall comply with the lockout/tagout procedure.
- Employees shall consult with their project supervisor or other appropriate knowledgeable management personnel whenever there are any questions regarding their protection.
- Employees shall obtain and care for the locks and other devices required to comply with the lockout procedure.

Affected Employees:

- Affected employees are individuals who cannot use machines or equipment for production purposes due to lockout/tagout devices.
- Affected employees will be verbally notified, if a machine in their work area is to be locked out for maintenance or repair.
- Never attempt to restart any machinery or equipment that is locked or tagged.
- When the machinery or equipment is ready for restart for production, the lockout/tagout supervisor will notify affected employees.
- Do not attempt to remove any energy isolating device.

Subcontracted Workers:

- Subcontractors working for Great Falls Construction or other outside contractors in the work area must have a full understanding of this Lockout/Tagout/(Tryout) Program and the requirements in place at the time of the work.

FORMS OF HAZARDOUS ENERGY

There are many types of machinery and equipment used, and systems encountered by Great Falls Construction employees.

Energy exists in many forms and can be categorized in two states: *active* and *stored*.

The following list identifies different forms of hazardous energy:

- Electrical
- Compressed Air (Pneumatic)
- Pipe or Fuel Lines
- Gravity (Suspended Items)

- Hydraulic
- Tension
- Spring
- Chemical
- Thermal (Surface Temperature)

When repair, maintenance and upgrades are necessary on machinery and equipment used by the company or at a project under construction, the details shall be discussed and control measures documented on the **Energy Control Shutdown Form** included in this Section.

GENERAL PROCEDURE

When performing work where Lockout/Tagout/(Tryout) procedures are required, the following procedures must be followed:

1. The energy source(s) of any equipment, machine, tool, or process to be set-up, adjusted, repaired, serviced, installed or where maintenance work is to be performed and unintended motion or release of energy could cause personal injury, such an energy source shall be locked out by each employee doing the work. Sources of energy, such as electrical, springs, mechanical, air (pneumatic), hydraulic, chemical, thermal, steam, or other energy shall be evaluated in advance to determine whether to retain or relieve the pressure prior to starting the work.
2. Safety locks are for the personal protection of the employees and are only to be used for locking out machines or equipment.
3. Safety locks, lockout devices, adapters, and “Danger Tags” can be obtained from the project supervisor.
4. Equipment locks and adapters can be obtained from a supervisor. The sole purpose of the “Equipment” lock and adaptor is to protect the equipment during periods of time when work has been suspended or interrupted. The locks are not to be used as a substitute for the employee’s personal safety lock.
5. Personal locks shall contain a tag and will include the employee’s name.
6. One key of every lock issued shall be retained by the employee to whom it was issued and the only other key to the lock shall be retained by the employer.
7. Employees shall request assistance from their supervisor if they are unsure of where or how to lockout equipment.
8. Employees should tryout the controls or attempt to energize the equipment or process prior to starting work under lockout/tagout to confirm the process was effective in removing all stored or potentially dangerous energy.
9. Any questions concerning the lockout procedure should be directed to the employee’s supervisor.

LOCKING/TAGGING OUT AND ISOLATING THE POWER SOURCE

1. Equipment, machines, or processing main disconnect switches shall be turned off and locked in the off position only after the electrical power is shut off at the point of operator control. Failure to follow this procedure may cause arcing and possibly an explosion.

2. Equipment and tools connected to a 120 volt source of power by a plug-in-cord shall be considered locked out if the plug is disconnected and tagged with a “do not start tag.”
Exception: Work on 120 volt cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start-up of the equipment is controlled by the unplugging of the equipment from the energy source may be performed without locks and tags if the plug is under the exclusive control of the employee performing the servicing or maintenance.
3. Equipment and tools connected to over a 120 volt source of power by a plug-in-cord shall have a locking device applied to the plug attached to the cord leading to the machine to be considered locked out.
4. After locking out all energy sources, the employee shall try the equipment, machine or process controls to ensure no unintended motion will occur. They may also test the equipment, machine or process by use of appropriate testing equipment to determine that the energy isolation has been effective.
5. When two or more employees work on the same equipment, each is responsible for attaching his/her lock. Safety locks and adapters are to be fixed on levers, switches, valves, etc. in the non-operative (off) position.
6. An employee who is assigned to a job and upon arrival finds an “equipment” lock adaptor and danger tag affixed to the equipment shall take the following actions:
 - a. Affix his/her personal lock to the equipment adaptor.
 - b. Determine who placed the equipment out of service and contact all parties who have locks on the equipment to determine if the assignment to be performed would affect their safety. The assignment will proceed only if safe to do so with all parties involved.
 - c. Try the controls to ensure no unintended motion will occur before starting work or qualified personnel shall test the equipment, machine, or process by use of appropriate test equipment to determine that the energy isolation has been effective. (Such testing of equipment is only used by trained qualified personnel).

PERFORMING TESTS AND ADJUSTMENTS DURING LOCKOUT/TAGOUT/(TRYOUT)

1. Power may be turned on when it is required to perform tests or adjustments. All of the rules pertaining to removing locks and restoring power shall be followed. The equipment or process shall again be locked out if it is necessary to continue work after completing the test or adjustments.

RELEASING EQUIPMENT AND MACHINERY FROM LOCKOUT/TAGOUT

1. If the employee leaves the job before completion, such as job reassignment, the employee shall remove his/her personal lock and adaptor and replace it with an “equipment” lock and adaptor. In addition, the employee will prepare and attach a danger tag indicating the reason the equipment is locked out (should more than one employee be assigned to the job, the last employee removing his/her lock will be responsible for affixing the “equipment” lock adaptor and the danger tag.

2. Upon completion of the work, each employee will remove his/her lock, allowing the machine to be operable when the last lock is removed.
3. The employee responsible for removing the last lock, before doing so, shall ensure that all guards have been replaced, the equipment, machine, or process is cleared for operation, and appropriate personnel notified that power is being restored. This employee is also responsible for removing the “equipment” lock and returning it to the supervisor.

EMERGENCY LOCK REMOVAL

1. The employer, or other designated management person, will be authorized to remove an employee’s lock under the following conditions:
 - a. Verification by the employer that the authorized employee who applied the device is not at the facility.
 - b. Making all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed.
 - c. Ensure that the authorized employee has this knowledge before he/she resumes work at the facility.
 - d. Receipt of a written request signed by the appropriate supervisor which shall state the reason the employee is not able to remove the lock. An **Emergency Removal of Lock Form** found in this section shall be completed.
 - e. The supervisor is responsible for making certain that all the requirements for restoring power are followed.

PERIODIC INSPECTION

Great Falls Construction will verify the Lockout/Tagout/Tryout Program is being followed by performing periodic inspections. The purpose of these inspections is to reinforce the requirements of this program and to identify and correct any deviations from policy or inadequacies observed.

ENFORCEMENT

Failure to follow the Lockout/Tagout/(Tryout) Program can create life threatening situations and cause serious injuries if ignored. Disciplinary actions will be taken if employees and subcontractors do not follow required safety procedures.

TRAINING RECORDS AND FORMS

All employees will be informed of the procedures in the Lockout/Tagout/(Tryout) Program when hired. In addition, all employees will be updated during the term of their employment. Information and training topics include this Program, responsibilities, how to identify sources of hazardous energy, isolation and control locations, available lockout/tagout equipment and the equipment and

machinery lockout/tagout procedures. Training records will be kept in employee files at the main office.

All completed forms will be kept on file at the project location for the duration of the project. Once a project is completed, all forms will be sent to the main office.

The following forms are included in this Lockout/Tagout/(Tryout) Program:

PROGRAM EVALUATION

This Lockout/Tagout/(Tryout) Program will be reviewed and evaluated on an annual basis.

Section 12: Respiratory Protection Program

PURPOSE

This Respiratory Protection Program is established to ensure the proper selection, inspection, use and care of respiratory protection equipment. In doing so, employees and subcontracted workers are protected from respiratory hazards at all Great Falls Construction projects and situations that could result in injury or illness will be avoided.

Engineering controls such as local ventilation and the use of wet methods shall be used whenever possible to prevent atmospheric contamination or silica exposure in the workplace.

Respirators (PPE) are to be used to protect employees from respiratory hazards only when engineering and administrative controls cannot control the hazards, or while engineering controls are being implemented.

SCOPE

This program applies to all employees that are working on projects with exposures to airborne contaminants that exceed, or potentially exceed exposure limits. Airborne respiratory hazards should be identified as early as possible before working with the anticipated hazard so an effective plan to address these hazards can be developed. This program does not allow for work in situations where atmospheric conditions are immediately dangerous to life or health (IDLH).

DEFINITIONS

Air Purifying Respirator – A respirator, which removes contaminants from the atmosphere by absorption or filtration media such as cartridges, canisters or filters.

Contaminant – A harmful, irritating or nuisance material in the air that is foreign to the normal atmosphere in the concentrations that may be encountered.

Dust Mask – A single-use disposable respirator made of filter material to be used only for particulates.

Face Piece – That portion of the respirator that covers the wearer's nose, mouth, and chin (half-mask), or nose, mouth, chin and eyes (full-face mask). It is designed to make an airtight fit with the face and includes head straps, exhalation valve(s), and connections for an air-purifying device or breathing quality air source.

Filter – A media component to remove solid or liquid particulate matter from the inhaled air entering the respirator.

Filtering Facepiece (Dust Mask) – Means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Immediately Dangerous to Life or Health (IDLH) – Any atmosphere that poses an immediate threat to life or causes irreversible debilitating health effects.

Negative Pressure Respirator – A respirator in which the air pressure inside the respiratory inlet covering is positive during exhalation and negative during inhalation in relation to the air pressure of the outside atmosphere.

Oxygen-Deficient Atmosphere – An atmosphere where the oxygen content in the air is less than 19.5% by volume. Employees shall not be permitted to work in such areas without approved self-contained breathing apparatus. Air purifying shall not be used in an oxygen deficient atmosphere.

Permissible Exposure Limit (PEL) – The concentration of a contaminant in the air published by OSHA (usually an 8-hour time weighted average - TWA) above which workers may not be exposed without controls.

Positive Pressure Respirator – A respirator in which the air pressure inside the respiratory inlet covering is positive in relation to the air pressure on the outside during inhalation and exhalation.

Pressure-Demand Respirator – A respirator that supplies enough air to maintain a slight positive pressure inside the face piece at all times so that any leakage will be outward.

Protection Factor – The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection by a respirator to the wearer.

Qualified Personnel – Individuals who by way of specific training and education are qualified to perform one or more of the following functions: fit testing evaluations, conduct employee training in respirator usage, exposure assessments, and properly select type(s) of respirator(s) to be used.

Respirator – A device designed to protect the wearer from the inhalation of harmful atmospheres.

Self-Contained Breathing Apparatus (SCBA) – A device that supplies a respirable atmosphere to the wearer, independent of the ambient air via a hose connected to a breathing quality air supply (such as a cylinder) carried by the wearer. It may be used in IDLH and oxygen-deficient atmospheres.

Supplied-Air (Airline) Respirator – A respirator that supplies a respirable atmosphere to the wearer independent to the ambient air via a hose connected to a breathing quality air supply not carrier by the wearer. May not be used in IDLH or oxygen-deficient atmospheres, unless outfitted with a continuous flow or pressure-demand face piece and escape provisions.

Threshold Limit Value (TLV) – The concentration of a contaminant in the air (8-hour TWA) to which nearly all workers may be exposed without adverse health effects. Published yearly by the American Conference of Governmental Industrial Hygienists (ACGIH).

RESPONSIBILITIES

Great Falls Construction firmly believes in protecting the health and safety of our employees. This responsibility begins with management providing the necessary support to properly implement this program and depends on employees to comply with the requirements of this program to be effective.

Management:

- Provide and maintain this program to prevent exposure to respiratory hazards.

- Maintain the respiratory protection equipment and procedures at the project level to protect employees.

Project Supervisor:

- Comply with this respiratory protection plan and ensure compliance with the procedures determined necessary to protect employees are each project.
- Ensure that only qualified employees wear respiratory protection equipment.
- Ensure employee respirators are properly used, cleaned and stored before, during and after each use.

Authorized Employees:

- Comply with all aspects of this program.
- Notify the project supervisor if conditions change or a new hazard is present at the project.
- Properly inspect, wear, clean and store respiratory protection equipment.

RESPIRATORY PROTECTION PROCEDURES

Training. Respirator users shall be instructed and trained on the proper use of respirators and their limitations. The training is to be provided on an annual basis, will review this program, and must include the following elements:

- The nature, extent, and effects of the respiratory hazards to which an employee may be exposed and the appropriate respiratory protection.
- Engineering, administrative or work practice controls to be used.
- Respirator selection to match the level of exposure and the specific hazard.
- Capabilities and limitations of respirators.
- Replacement schedule for filter cartridges for air-purifying respirators.
- Care, storage and maintenance of respirators.
- Proper inspection of respirators prior to and following each use.
- Recognizing medical signs and symptoms that limit or prevent the effective use of respirators.

Respirator Selection. Respirators shall be selected on the basis of hazards to which the worker is exposed. Only NIOSH certified respirators shall be used.

Medical Evaluations. Employees shall not use a respirator until it has been determined they are physically able to perform the required work while wearing a respirator. Each employee required to wear a respirator will complete a Medical Evaluation Questionnaire and this document will be reviewed by a medical professional to determine if it is appropriate for the employee to use the specific respirator for the work effort and duration required.

Fit Testing. Prior to using a respirator, each employee will be given a fit test to ensure the respirator provides a proper seal and fits the user’s face. Employees must be clean shaven where the face seal occurs. The wearer shall follow the manufacturer’s instructions to check the face fit each time the respirator is worn. Fit tests shall occur on an annual basis (if respirator use is required).

Pre-Job Planning. The job site and scope of work shall be reviewed to anticipate any possible respiratory hazards. Respiratory hazards shall be addressed to reduce potential exposure to levels that

will not cause injury or illness. If this is not possible, respirators will be provided to protect employees working in an area with exposure levels exceeding the PEL.

VOLUNTARY RESPIRATOR USE (Dust Masks)

If employees have requested or have been provided with dust masks (filtering face pieces) to use on a voluntary basis at a project, the Voluntary Respirator Use Form will be provided. In this situation, the use of respirators is not required for personal protection and no respiratory hazard exists.

A medical evaluation is not required for the voluntary use of filtering face pieces (dust masks). Note: Employees are required to undergo a medical evaluation if they choose to voluntarily use a half or full-face respirator.

If an employee voluntarily wears a respirator of any kind in an environment where no respiratory hazard has been identified, a fit test is not required.

On the following page, you will find the Voluntary Respirator Use Form – Appendix D from Section 1910.134 of the OSHA Standard.

Voluntary Respirator Use Form

Appendix D to Section 1910.134

(Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I have read and understand the respirator requirements for voluntary use as stated above.

Employee Name (Printed)

Employee Signature

Date

Note: This record will be placed in the employee file.

Section 13: Fall Protection Program

PURPOSE

This Fall Protection Program is written to ensure that employees and subcontracted workers are protected from fall hazards at all Great Falls Construction projects and to prevent situations that could result in injury.

SCOPE

This program (for Construction) applies to all employees that are working on or near a surface with unprotected edges where they are exposed to a fall greater than 6 feet to a lower level. OSHA states that each employee on a walking/working surface (horizontal and vertical surfaces with an unprotected side or edge which is 6 feet or more above a lower level shall be protected from falling by use of guardrail systems, safety net systems or personal fall arrest systems.

- a. OSHA provides exceptions to this rule to include excavations, scaffolding and steel erection.
- b. When an excavation or trench is readily visible and the employee is working directly with the crew involved with the excavation, fall protection is not required if the excavation is greater than 6 feet. If a walkway is constructed across an excavation where walkways are 6 feet or more above a lower level, fall protection must be provided.
- c. For scaffolds, at 10 feet above a lower level, each employee shall be protected from falling to a lower level.
- d. For steel erection, each employee engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet (4.6 m) above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.

An additional exclusion is provided through the definition of a walking/working surface provided in the definition section below. Fall protection is not required for work performed on ladders, vehicles or trailers.

Employees working at any height above dangerous equipment shall be provided with fall protection.

When work is being done in the shop facility, the OSHA standards (for General Industry) apply and require that fall protection is provided and ensure that each employee on a walking/working surface with an unprotected side or edge that is 4 feet or more above a lower level is protected from falling.

When a fall hazard exists, the hazard shall be eliminated or controlled by following the hierarchy detailed below:

1. Eliminate the fall hazard by implementing engineering or design changes. (Examples: move the work to ground level, replace ladders with stairways, or build a work platform).
2. Install fall prevention measures to prevent the employee from being exposed to the fall hazard. (Example: guardrail systems).
3. Utilize a fall restraint system by attaching the employee to an anchorage point and line of appropriate length that will prevent them from being able to reach the fall hazard.

4. Safety net system.
5. Provide the employee with fall limiting measures and equipment such as self-retracting lifelines (SRL).
6. And as a last option, use personal protective equipment by placing the employee in a Personal Fall Arrest System (PFAS), installing a safety net, or implement an alternate fall protection plan.

For work performed in aerial boom and scissor lifts, see the Aerial Work Platform portion of the standard operating procedures in Section 28 of this Health & Safety Program for additional information.

DEFINITIONS

Anchorage means a secure point of attachment for lifelines, lanyards or deceleration devices.

Body Harness means straps which may be secured about the employee in a manner that will distribute the fall arrest force over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.

Connector means a device which is used to couple (connect) parts of the personal fall arrest system and positioning device systems together. It may be an independent component of the system, such as a carabiner, or it may be an integral component or part of the system (such as a buckle, dee-ring sewn into a body belt or body harness, or a snap-hook spliced or sewn to a lanyard or self-retracting lanyard).

Guardrail System means a barrier erected to prevent employees from falling to lower levels.

Lanyard means a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline or anchorage.

Lifeline means a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connection other components of a personal fall arrest system to the anchorage.

Personal Fall Arrest System means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combination of these. (As of January 1, 1998, the use of a body belt for fall arrest is prohibited).

Self-retracting lifeline/lanyard (SRL) means a deceleration device constraining a drum-wound line which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

Walking/working surface means any surface, whether horizontal or vertical on which an employee works, including, but not limited to, floors, roofs, ramps, bridges, runways, formwork, and concrete reinforcing steel but not including ladders, vehicles or trailers, on which employees must be located in order to perform their job duties.

RESPONSIBILITIES

Great Falls Construction firmly believes in protecting the health and safety of our employees and subcontracted workers. This responsibility begins with management providing the necessary support to properly implement this program.

Management:

- Provide oversight, technical support and training;
- Secure the resources necessary to implement this program;
- Ensure that routine safety checks of work operations are performed.

Project Supervisor:

- Comply with this program at project sites;
- Perform routine safety checks of work operations;
- Correct any unsafe practices or conditions immediately;
- Ensure employees have the proper tools and personal protective equipment for working on elevated work surfaces;
- Address the situation if a potential fall hazard requires additional assessment, updated training, or revisions to this plan.

Employees & Subcontracted Workers:

- Comply with all aspects of this program;
- Cooperate with the project supervisor in all safety and health matters;
- Report incidents related to fall protection to your project supervisor immediately;
- Wear all required personal protective equipment – (no exceptions);
- Inspect the equipment in accordance with manufacturer's guidelines and instructions;
- Report hazardous conditions or other health and safety concerns immediately to your project supervisor.

FALL PROTECTION PROCEDURES

Training. Each employee who may be exposed to fall hazards shall be trained in the recognition of and how to minimize fall hazards. In addition, training will include the correct procedures for installing, maintaining, disassembling and inspecting fall protection systems. When new fall hazards are identified or unsafe behaviors are observed, there shall be retraining for all affected employees. All fall protection training will be documented.

Inspections. All fall protection equipment will be inspected before each use to confirm it is in good working condition. Defective equipment shall not be used and will be tagged out-of-service and removed from the work area.

Annual Inspection. A formal inspection for personal fall arrest system components shall be performed at least annually by a competent person.

Pre-Job Planning. The job site and scope of work for the project shall be evaluated prior to starting work at the project. The Pre-Job Planning efforts should address the following:

- Evaluate the existing fall hazards or those possibly created during the construction process where employees could be exposed while accessing, walking or working in an elevated area.
- Detail the fall protection measures to address identified fall hazards.
- Provide clear warnings to identify fall hazards and prevent unintentional exposure.
- Develop a fall rescue plan.

Rescue Plan. A fall rescue plan must be developed and communicated whenever personal fall protection systems are in use and when an employee may not be able to self-rescue if they fall. The plan must provide for prompt rescue (within 15 minutes of a fall into the PFAS) and begin immediately after the event.

Impacted PFAS. Any fall protection equipment that has been impacted shall be removed from service.

FALL PREVENTION MEASURES

Guardrail Systems.

Guardrail systems are erected at unprotected edges, ramps, runways, or holes where it is determined by the project supervisor, that a fall hazard exists.

A standard railing shall consist of top rail, intermediate rail, toeboard, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth-surfaced throughout the length of the railing. A guardrail system shall be capable of withstanding, without failure, an outward or downward force of at least 200 pounds with minimal deflection.

The following specifications are used in the erection of guardrail systems:

Top Rails:

- At least ¼ inch in diameter (steel or plastic banding is unacceptable);
- Flagged every six (6) feet or less with a high visibility material if wire rope is used;
- Inspected by the project manager as frequently as necessary to ensure strength and stability;
- Must be constructed so they stand forty-two (42) inches (plus or minus three (3) inches) above the walking/working level.
- A top rail shall be capable of withstanding, without failure, an outward or downward force of at least 200 pounds.

Intermediate (Mid) Rails:

- Shall be approximately halfway between the top rail and the floor, platform, runway, or ramp.
- A midrail shall be capable of withstanding, without failure, an outward or downward force of at least 150 pounds.
- The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

Toeboards:

- A standard toeboard shall be 4 inches nominal in vertical height from its top edge to the level of the floor, platform, runway, or ramp.

- It shall be securely fastened in place and with not more than 1/4-inch clearance above floor level.
- It may be made of any substantial material either solid or with openings not over 1 inch in greatest dimension.
- A toeboard shall be capable of withstanding, without failure, a force of at least 50 pounds.

Fall (Travel) Restraint System.

A fall restraint system prevents a worker from being exposed to a fall. When this system is used, it must be installed and setup so the employee is not exposed to (cannot reach the edge) the fall hazard. A full body harness must be used. The anchorage point shall be able to withstand at least 1,000 pounds (per person attached).

FALL PROTECTION MEASURES

Personal Fall Arrest Systems (PFAS).

Personal fall arrest systems are issued to and used by employees as determined by the project supervisor and may consist of anchorage, connectors, body harness, deceleration device, lifeline, or suitable combinations of the list above.

Personal Fall Arrest Systems:

- Limit the maximum arresting force on the body to 1,800 pounds;
- Are rigged so an employee cannot free fall more than six (6) feet or contact any lower level;
- Bring an employee to a complete stop and limit the maximum deceleration distance traveled to three and a half (3½) feet;
- Are strong enough to withstand twice the potential impact energy of an employee free falling six (6) feet (or the free fall distance permitted by the system, whichever is less);
- Are inspected prior to each use for damage and deterioration; and
- Are removed from service if any damaged components are detected.

All components of a fall arrest system must meet the specifications of the OSHA Fall Protection Standard, and be used in accordance with the manufacturer's instructions.

Dee-rings and locking snaphooks (the use of non-locking snaphooks is prohibited):

- Have a minimum tensile strength of 5,000 pounds; and
- Are proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or suffering permanent deformation.

Lifelines are:

- Designed, installed, and used under the supervision of a qualified person – one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project; and
- Protected against cuts and abrasions.
- Self-retracting lifelines (SRL) and lanyards that have wire ropes or straps (webbing) made of synthetic fibers, shall;

- Sustain a minimum tensile load of 3,600 pounds if they automatically limit free fall distance to two (2) feet; or
- Sustain a minimum tensile load of 5,000 pounds (includes ripstitch, tearing, and deforming lanyards).

Anchorage are:

- Able to support at least 5,000 pounds per person attached;
- Designed, installed, and used under the supervision of a qualified person;
- Capable of supporting twice the impact expected to be imposed on it; and
- Independent of any anchorage used to support or suspend platforms.

PROGRAM EVALUATION

This Fall Protection Program will be reviewed and evaluated on an annual basis to ensure employee safety as well as compliance with OSHA Standards.

Other Safety Situations Involving Fall Protection:

PERIMETER GUARDING FOR LOW-PITCHED ROOFS

1. Built-up roofing work includes the hoisting, storage, application, and removal of built-up roofing materials and equipment including related insulation, sheet metal, and vapor barrier work but does not include construction of the roof deck.
2. To protect employees from falls, Great Falls Construction will provide workers with motion-stopping safety systems, warning lines, and/or safety monitoring systems.
3. A motion-stopping safety system (MSS) may be guardrails, platforms or scaffolds with guardrails, safety nets, or safety belt systems. Safety monitoring may be done by a competent person to warn workers of hazards or unsafe actions.
4. MSS, warning lines, and safety monitoring systems do not apply at points of access such as stairways, ladders, and ramps, or when employees are on the roof only to inspect, investigate, or estimate roof level conditions.
5. Employees working between the warning line and the roof edge must be protected by an MSS system or, when mechanical equipment is not being used or stored, by the use of a safety monitoring system.

WARNING LINES

1. All sides of the work area must be protected by warning lines. When mechanical equipment is not being used, the warning line must be erected at least six feet from the roof edge.
2. When mechanical equipment is being used, the warning line must be erected at least six feet from the roof edge which is parallel to the direction of mechanical equipment

operation, and at least 10 feet from the roof edge which is perpendicular to the direction of mechanical equipment operation.

3. The warning line may be a rope, wire, or chain, and have supporting stanchions. It must be flagged with highly visible material at least every six feet. It must be rigged and supported in such a way that its lowest point (including sag) is no more than 34 inches from the roof surface. At its highest point it must be no more than 39 inches from the roof surface.
4. After being erected with the rope, wire, or chain attached, the stanchions should be capable of resisting-without tipping over a force of at least 16 pounds “applied horizontally, 30 inches above the roof surface, perpendicular to the warning line, and in the direction of the roof edge”.
5. All ropes and wires shall have a minimum tensile strength of 500 lbs. and be able to support the loads applied to the stanchions.
6. The line should be attached to the stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
7. Points of access, material handling areas, and storage areas should be connected to the work areas by a clear access path formed by two warning lines.
8. When a path of access is not in use, it should be closed off by rope, wire, or chain equal in strength and height to the warning line.
9. Mechanical equipment may only be stored in areas where employees are protected by either a warning line or an MSS system.

ROOF OPENINGS AND HOLES

1. A combination of partial perimeter guarding plus a warning line provides some protection against perimeter falls from “flat” decks under good weather conditions. However, the only safe method for working near roof openings is to construct standard guardrails attached to the inner surface of the opening, at least for those openings that are flush with the deck. Roof openings with a suitable raised lip may allow an alternative: nailing a strong plywood sheet over the opening. Regardless of which method of protection is used, the protective structure should be designed so that it does not have to be removed until after the roof surrounding the opening is completed.

FLOOR OPENINGS, OPEN SIDES, ETC.

1. All stairways and ladder way floor openings shall be guarded by a standard railing with standard toe board on all exposed sides except at the entrance. For infrequently used stairways the guard may consist of a hinged cover and removable standard railings. All entrance to ladder way openings will be guarded to prevent workers from walking directly into the opening.
2. All hatchway and chute floor openings must be guarded by a hinged floor opening cover equipped with standard railings to leave only one exposed side or a removable railing with

toe board on not more than two sides and fixed standard railing with toe board on all other exposed sides.

3. All floor holes into which persons can accidentally walk must be guarded by either a standard railing with standard toe board on all exposed sides, or a floor cover that is secured in place. While the cover is not in place, the floor hole must be attended or must be protected by a removable standard railing.
4. All open-sided floor, platform or runway 4 feet or more above adjacent floor or ground level must be guarded by a standard railing with toe board on all open sides, except where there is entrance to a ramp, stairway, or fixed ladder. Runways not less than 18 inches wide used exclusively for special purpose may have the railing on one side omitted where operating conditions necessitate.
5. Regardless of height, open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment must be guarded with standard railing and toe board.
6. Every open-sided floor or platform six feet or more above adjacent floor or ground level must be guarded by a standard railing, or the equivalent, on all open sides except where there is an entrance to a ramp, stairway, or fixed ladder.
7. Floor holes into which workers can accidentally walk must be guarded either by a standard railing with standard toe board. Floor holes must be protected by a standard railing.
8. Wall opening screens should be of such construction and mounting that they are capable of withstanding a load of at least 200 pounds applied horizontally at any point on the near side of the screen. They may be of more solid construction, of grillwork with openings not more than eight inches long, or of slat wood with openings not more than four inches wide in length unrestricted.

Section 14: Confined Space Entry Program

PURPOSE

This **Confined Space Entry Program** outlines safe work practices and shall be conducted in accordance with all OSHA safety standards (Subpart AA) when performing work in any area meeting the definition of a confined space.

SCOPE

This program applies to all employees (and subcontracted workers) who will perform work in confined spaces at any Great Falls Construction project.

DEFINITIONS

Competent Person means one who is capable of identifying existing and predicable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees, and who is authorized by the company to take prompt corrective measures to eliminate them. (Note: Any entry into a confined space shall be overseen by a competent person).

Confined Space means a space or work area that:

- a) Is large enough for an employee to bodily enter and perform work;
- b) Has a limited or restricted means of entry or exit; and
- c) Is not designed or intended for continuous human occupancy.

Examples of confined spaces include but are not limited to trenches, sewers, manholes, catch basins, culverts, tunnels, tanks, vessels, attics, and crawl spaces. It also includes open top spaces greater than 4 feet deep such as pits, bins, tubs, silos, vaults, etc.

Controlling Contractor is the employer that has overall responsibility for construction at the worksite.

Entry Employer means any employer who decides an employee it directs will enter a permit space.

Host Employer means the employer that owns or manages the property where the construction work is taking place.

Non-Entry Rescue occurs when a rescue service, usually the attendant, retrieves employees in the permit space without entering the permit space.

Non-Permit Confined Space means a confined space that does not contain or have the potential of containing any hazard capable of causing death or serious harm.

Examples of non-permit confined spaces may include trenches in a safe location, new manhole structures that have not been piped or backfilled, and most open ended culverts.

Permit-Required Confined Space (PRCS) means a confined space where there is an existing or potential hazard, or where the work in the space could create a hazard. Such hazards include:

- a) Contains or has the potential to contain a hazardous atmosphere;
- b) Liquid or solid materials that could engulf an entrant;
- c) Inwardly sloping walls or floor, or other configuration of the space that could cause an entrant to become trapped or asphyxiated;
- d) Electrical, mechanical, chemical, or biological hazards; or
- e) Any other recognized serious safety or health hazard, such as potential falls, falling objects, fires, and poisonous insects or animals.

Note: Each confined space shall be considered a permit-required confined space unless and until the competent person specifically confirms that the space does not have existing or potential hazards of any kind.

RESPONSIBILITIES

For confined space work, there are three specific roles that must be performed. There is an entrant(s), an attendant, and the entry supervisor. The entry supervisor is also the competent person for the entry.

Note: The entry supervisor may act in dual capacities and function as an entrant or attendant. All team members must be trained as it applies to each confined space entry situation.

The **Entry Supervisor (and Competent Person)** is the person authorizing the entry. This person shall be trained in confined space entry procedures and be responsible for the following:

- Determine that the entry permit contains all the required information before authorizing or allowing entry.
- Determine that the necessary procedures, practices, and equipment for safe entry, and a rescue plan are in place before allowing entry.
- Verify at appropriate intervals, that entry operations remain consistent with the terms of the entry permit, and that acceptable entry conditions are maintained.
- Cancel the entry authorization and require all entrants to evacuate the space whenever acceptable entry conditions are not present.
- Take the necessary measures for concluding an entry operation, such as closing off a permit space and canceling the permit when the work authorized by the permit has been completed.
- The entry supervisor may at the same time be an entrant or attendant so long as he/she has the proper training.

The **Attendant** shall be trained in confined space entry procedures and shall be responsible to:

- Stay in continual contact with entrants in the space. The attendant shall evacuate all entrants from the confined space or wait for a trained replacement attendant before leaving the immediate area of the confined space.
- Maintain a count of the number of workers in the confined space at all times.
- Monitor activities both inside and outside the space and recognize conditions that could pose a potential hazard to those in the space.
- Order the immediate evacuation of the entrant(s) if he/she observes any of the following:
 - a) A condition not allowed by the permit (i.e. hot work, abrasive blasting, solvent usage or unauthorized work practices/procedures);

- b) Behavioral changes in the entrant(s), such as euphoria (feeling good or giddiness) or unexpected laughing that may result from an oxygen deficiency or excessive exposure to certain gases or vapors;
 - c) Situations outside the space that could endanger those inside (i.e. a pool of spilled solvent or a vehicle idling near the ventilation intake); or
 - d) An uncontrolled circuit or a leaking fluid line in the space.
- Use emergency equipment and practices to begin non-entry rescue procedures (i.e. calling for emergency assistance by phone or radio and/or using the tripod and winch to extract an entrant who is unable to self-rescue).
 - The attendant shall not allow an unauthorized person to attempt rescue.
 - An attendant shall never attempt an in-space rescue unless he/she:
 - a) Has been relieved by another trained attendant; and
 - b) Has been trained and equipped as necessary to safely perform the rescue procedure.

The **Entrant** shall be trained in confined space entry procedures and shall be responsible for:

- Recognizing any hazardous condition or substance they might be exposed to during entry. They must be aware of the signs and symptoms of exposure to the hazard, understand the possible consequences, and know the proper procedures for safely eliminating the hazard or avoiding exposure to it.
- Maintain contact and communication with the attendant and follow his/her direction immediately at all times and without question.
- Wear a harness attached to a mechanical winch for vertical entry.
- Exit the space under any of the following conditions:
 - a) When ordered by the attendant;
 - b) When a gas meter or other evacuation alarm sounds;
 - c) If they become aware of an uncontrolled hazard in the space; or
 - d) If they believe they are in any danger.

REQUIREMENTS FOR ENTRY INTO ALL CONFINED SPACES

Safe Working Procedures and Conditions. Work in a confined space shall be conducted in accordance with all OSHA and Great Falls Construction safety standards.

A Competent Person shall oversee all confined space entry work. Prior to entry into a confined space, the competent person shall conduct a thorough survey of the space to determine if there are any existing or potential hazardous materials or conditions.

Training. Each employee who enters into a confined or enclosed space shall be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of any protective or emergency equipment required. Training will be documented on the confined space entry permit for the space. This instruction shall include a review of the Safety Data Sheets (SDS) for all hazardous materials that are present in the confined space or will be used inside the space.

Confirm Safe Atmosphere. Prior to entry into a confined space, the competent person shall use a properly calibrated air monitoring instrument to determine that the atmosphere in the space provides a safe work environment. The instrument(s) used shall at a minimum measure the oxygen content of

the air and identify the presence of any combustible gases, carbon monoxide, or hydrogen sulfide. The following acceptable levels shall be maintained prior to entry:

- Oxygen (O₂): Between 19.5% and 23.5% (fresh air contains 20.9% O₂)
- Combustible Gases: 10% of Lower Explosive Limit (LEL) maximum
- Toxics:

	CEILING	8-hr. TWA	15 min. STEL
Carbon monoxide (CO) –	35 ppm	35 ppm	100 ppm
Hydrogen sulfide (H ₂ S) –	10 ppm	10 ppm	15 ppm
- Any known toxic gas or hazardous substance that could reasonably be expected in the space shall be monitored and maintained below OSHA’s Permissible Exposure Limit (PEL).
- Total Dust – Below 50 micrograms of respirable crystalline silica per cubic meter of air (µg/m³), averaged over an 8 hour day.
- TWA – Time Weighted Average.
- STEL – Short Term Exposure Level.

Permit Space Entry Communications and Coordination. Prior to performing permit entry operations, affected employers shall obtain all available information regarding known and potential hazards in the permit required confined space(s). They shall provide this information to all persons who will enter the permit space, and to all other entities performing activities that could potentially result in a hazard in the space.

OTHER REQUIREMENTS OR PRECAUTIONS:

Confined Space Entry Permit.

- The entry supervisor shall begin filling out a Confined Space Entry Permit before allowing entry into the space and he/she shall maintain it as long as people are in the space. The entry permit documents all appropriate steps that are taken to protect employees in the space and comply with the requirements of this Section.
- The entry permit expires and must be terminated when:
 - a) The planned work is completed; or
 - b) The work shift is completed for the day; or
 - c) There is an emergency evacuation.
- New entry permits shall be completed each day before re-entry into the same space.
- A separate entry permit shall be completed for each new permit space entered.
- The entry permit shall be maintained in the immediate vicinity of the PRCS. The supervisor shall make the entry permit available upon request from any official or authority.
- Copies of all entry permits shall be maintained in the project file.

Eliminate/Control Hazards. All necessary steps shall be taken to control all existing or potential hazards in the space, such as:

- Using lockout/tagout procedures.
- Purging and/or blocking pipelines.
- De-watering and/or pre-cleaning contaminants from the space.

- Posting warning signs and sufficient barricades to prevent unauthorized entry and to protect entrants from external hazards.
- Using proper PPE.
- Initiating other engineering and/or administrative controls as appropriate.

Ensure Safe Atmosphere. Air monitoring shall be conducted prior to entry and on a full time basis while people are inside the PRCS. Mechanical ventilation shall be provided as necessary to maintain safe breathing conditions.

- If a safe atmosphere cannot be maintained on a continual basis, an entry plan reviewed and approved by the Project Manager shall be in place prior to entry, and entrant(s) shall comply with all requirements of the approved entry plan.
- If a safe atmosphere cannot be maintained on a continual basis, only properly trained personnel who are wearing appropriate respiratory protective equipment shall be allowed to enter the space.
- When conditions are immediately dangerous to life or health (IDLH) and the confined space is occupied, rescue services must be on-site.

Lockout/Tagout (LOTO). After the confined space environment has been made safe for work, the entry supervisor shall take all necessary precautions, including LOTO procedures to prevent the accidental release of hazardous energy in the space and/or to keep unwanted liquids, gases or solids from entering into the confined space during occupancy.

Confined Space Rescue Requirements. While the preferred means of rescuing an entrant from a confined space is always self-rescue, there shall be a plan in place for the emergency rescue of an ill or injured person from the space.

Non-Entry Rescue Plan.

- For vertical entry into a structure, a mechanical retrieval device (tripod and winch) shall be attached to each entrant. If the retrieval device is also being used to provide entry into the space, a secondary means of fall protection shall be provided. Never use a rescue retrieval device to raise or lower materials or equipment.
- For horizontal entry, a lifeline from the entrance shall be attached to each entrant, and standby personnel shall be available to pull the entrant(s) from the space.

Alternate Permit Entry Plan. Non-entry rescue procedures listed above may not be required if all of the following conditions are met:

- The competent person has determined that the only actual or potential hazard in the permit-required confined space is an atmospheric one; and
- The competent person confirms and documents on the Confined Space Entry Permit that continuous forced ventilation alone is sufficient to maintain safe atmospheric conditions; and
- Mechanical ventilation is used to force a continuous supply of fresh air into the space for the duration of entry operations; and
- The entrant(s) tests the atmosphere within the space on a continuous basis to ensure that the forced air ventilation is preventing an accumulation of a hazardous atmosphere; and
- The entrant(s) into the space shall wear harnesses and there is a retrieval system readily available at the site; and

- The entrant(s) shall exit the space immediately if any hazard (including but not limited to an atmospheric hazard) arises within the space; and
- The attendant shall not enter the confined space to assist with a rescue or for any reason until he/she is replaced by another qualified attendant.

Other Approved Rescue Plans. In the event the established rescue procedures described in this section are impossible or impractical for a particular confined space, a written effective rescue plan shall be reviewed and approved by the Project Manager. The approved rescue plan shall be in place and all members of the CSE team shall be trained to execute the plan prior to entry.

Multi-Employer Worksites. When employees from more than one employer are working simultaneously in a permit space, procedures to coordinate entry operations, in consultation with the controlling contractor, shall be developed and implemented. These procedures apply to the permit space or elsewhere on the worksite where their activities could, either alone or in conjunction with the activities within a permit space, foreseeably result in a hazard within the confined space. The coordinated operations is intended to prevent employees of one employer from endangering the employees of any other employer.

PROGRAM EVALUATION

This plan shall be reviewed annually for accuracy and to ensure employees working in confined spaces are effectively protected from hazards.

Company Name: _____ Date & Time Issued: _____
 Job Site / Space ID: _____ Date & Time Expired: _____
 Purpose of Entry: _____

HAZARDS IN THE CONFINED SPACE: (☑)

- Oxygen deficiency (<19.5%)
- Toxic gasses or vapors > PEL
- Engulfment or Entrapment
- Electrical hazards
- Flammable hazards (gases, vapors, high oxygen)
- Heat or Cold (circle one)
- Hazardous configuration
- Rotating or moving equipment
- Chemical hazards
- Other _____

REQUIRED ENTRY EQUIPMENT: (☑)

- Respirator
- Coveralls
- Hearing protection
- Explosive proof lighting
- Fire Extinguishers
- Harnesses
- Emergency Escape Equipment
- Resuscitator - Inhalator
- Emergency Escape Respirator
- Other: _____

COMMUNICATION

- Line of sight
- Radios
- Other _____

ADDITIONAL NOTES

AUTHORIZED WORKERS

Entrant(s): _____
Attendant(s): _____
Supervisor: _____

Written Rescue Plan Posted

- Employee Rescue
- Employee Non Entry Rescue
- Outside Rescue – Contact # _____

ENTRY PREPARATIONS

- Notify affected employees of work
- Isolate hazardous energy
- Apply locks and tags
- Verify isolation
- Secure area with posts and flags
- Clean, drain and purge space
- Establish required ventilation
- Review hazards and work procedure
- Notify available emergency team
- Atmospheric test satisfactory
- Additional permits obtained
- Required PPE worn
- Communication plan works
- Other _____
- Other _____

ATMOSPHERIC TESTING

Test will be done before entry
 Continuous monitoring? Yes No
 Test frequency: _____
 Tester name: _____
 Tester ID #: _____
 Tester name: _____
 Tester ID: _____

TEST	PEL	☑	Meter Reading 1	Meter Reading 2	Meter Reading 3	Meter Reading 4	Meter Reading 5	Meter Reading 6	Meter Reading 7
Oxygen Minimum (O ₂)	19.5%	<input type="checkbox"/>							
Oxygen Maximum (O ₂)	23.5%	<input type="checkbox"/>							
Flammability	10% LFL	<input type="checkbox"/>							
Carbon Monoxide (CO)	35 ppm	<input type="checkbox"/>							
Hydrogen Sulfide (H ₂ S)	10 ppm	<input type="checkbox"/>							
Time of Reading		<input type="checkbox"/>							
Toxic		<input type="checkbox"/>							
Temperature		<input type="checkbox"/>							
Other		<input type="checkbox"/>							

Instrument #1 _____ Model / Type _____ ID Number _____
 Instrument #2 _____ Model / Type _____ ID Number _____

Notes:

AUTHORIZATION Time: _____ Name: _____
 I certify required entry conditions are met Date: _____ Signature: _____
 & it is safe to commence work in this space. Phone: _____

Notes:

Section 15: Forklift Safety

General Requirements

- Only employees who have been trained in the proper use of industrial trucks or forklifts, will be authorized in their use.
- All forklifts must be operated and used in strict accordance to the manufacturer's recommendations as to the safe use of that equipment. Owner's manuals are located on the machines at all times for reference to their safe use.
- A documented inspection shall be performed before use each day. Employees will report any damage or defects of any equipment to the immediate supervisor for repairs.
- Forklifts will not be used as work platforms and should not be used to lift people into an elevated position.
- Seatbelts are required on forklifts when in use.

Loading – Hoisting and Rigging

- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be balanced.
- Only loads within the rated capacity of the truck shall be handled.
- Long or high (including multiple-tiered) loads which may affect capacity and stability shall be adjusted.
- Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
- A load engaging means (hook) shall be placed under the load as far as possible; the mast shall be carefully tilted backwards to stabilize the load.
- Extreme care shall be used when tilting the load forward or backward, particularly when moving a tall load. Tilting forward with elevated load engaged shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when load is being deposited into position. When stacking or tiering, use only enough tilt to stabilize the load.
- Although free rigging is a common practice, it could affect the capacity and safe operation of the forklift. OSHA CFR 1910.178(a)(4) requires that "Modification and additions which affect the capacity and safe operation shall not be performed by the customer or user without manufacturer's prior written approval."
 - a. Only approved attachments to make lifts are allowed.
 - b. Approval consist of the following:
 - i. Use an approval attachment from the forklift manufacturer
 - ii. Have a qualified registered PE approve an engineered designed attachment
 - iii. Use an approved attachment from an attachment manufacturer
- Free rigging from the tines is an unacceptable procedure.

Rigging Below the Tines – with an approved attachment.

- DO NOT attach or operate any attachment on a forklift that has not been approved for use.
- When hook plate attachments are used, extra care shall be taken in securing, manipulating, positioning and transporting the load.
- Only use manufacturer approved attachments for use with forklifts operated on site.
- All hook plates must have the placard in place and legible before any lift can occur. The placard information must include the following:
 - a. Model number
 - b. Serial number
 - c. Weight
 - d. Capacity
- All lifts with hook plates will follow load charts provided by the manufacturer.
- The rated capacity of an attachment and forklift combination shall not be exceeded.
- No worker shall be placed below the load.

Changing Tanks

The following procedures shall be followed when changing propane tanks or refueling a forklift.

- No Smoking.
- Move the forklift outside for refueling.
- Turn off the forklift.
- PPE required – Safety glasses and gloves.
- Propane tanks will be removed in the following order:
 - a. Shut off service valve
 - b. Disconnect tank from hose
 - c. Unbuckle and remove tank from bracket
- Propane tanks will be replaced in the following order:
 - d. Place tanks in bracket and re-buckle
 - e. Reconnect hose to tank and tighten firmly
 - f. Open valve slowly and assure proper seal

Section 16: Hearing Conservation Program

PURPOSE

- Identify work areas and activities that expose employees to noise levels that exceed Permissible Noise Exposure Limits as defined in the table below:

Duration per day, hours	Sound level dBA slow response
12	87
10½	88
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

- Implement engineering controls wherever practical in noisy work areas to reduce employee exposure levels to within Permissible Noise Exposure Limits.
- Provide hearing personal protective equipment (PPE) in all work areas, and require employees to use hearing protection where engineering controls do not reduce noise exposure to acceptable levels.
- Great Falls Construction intends to protect all employees from significant noise exposure that could cause hearing impairment.

SCOPE AND APPLICATION

- Whenever employee noise exposure is equal to or exceeds an 8-hour time-weighted average sound level (TWA) of 85 dBA, the affected employee shall be enrolled in a **Hearing Conservation Program**.

PROGRAM ELEMENTS

Noise Monitoring

- Employee noise exposure levels shall be monitored for a variety of work activities. This sampling of noise exposure levels will help identify which employees must be included in the Hearing Conservation Program.
- Noise level monitoring will be utilized to determine where appropriate engineering controls need to be implemented and/or hearing protection required.

- Representative personal noise sampling will be performed rather than area monitoring in most cases since most employees are mobile and are not assigned to individual work stations.

Employee Notification

- Each employee exposed at or above an 8-hour TWA of 85 dBA shall be notified of such exposure.

Audiometric Testing Program

- Audiometric testing shall be conducted for all employees whose exposures equal or exceed an 8-hour TWA of 85 dBA. Such testing shall be provided at no cost to the employee.

Baseline Audiogram – Must be performed within 6 months of the employee’s first exposure at or above an 8-hour TWA of 85 dBA. Prior to completing the baseline audiogram, the employee shall not be exposed to workplace noise for at least 14 hours. This shall provide a comparison point for all future audiograms.

Annual Audiogram – After obtaining the baseline audiogram, a new audiogram shall be performed at least annually for each employee exposed at or above an 8-hour TWA of 85 dBA.

Standard Threshold Shift - A change in hearing threshold relative to the baseline audiogram of an average of 10 dBA or more at 2000, 3000, and 4000 HZ in either ear.

- a. If an annual audiogram indicates a standard threshold shift, Great Falls Construction may obtain a retest within 30 days and consider the results of the retest as the annual audiogram.
- b. An employee whose annual audiogram indicates a standard threshold shift shall be informed of this fact in writing, within 21 days of determination.
- c. Unless a physician indicates that the standard threshold shift is not work related or aggravated by noise exposure in the workplace, Great Falls Construction shall take all necessary corrective and preventative steps as listed in OSHA 1910.95 (g)(8)(ii).

Evaluation of Audiogram – Shall be performed by an audiologist.

Training Requirements

Hearing Conservation Training shall be included in safety orientations for newly hired employees. In addition, training shall be provided annually to any employees enrolled in the hearing conservation program. The training shall include the following topics:

- The rules and procedures of this Hearing Conservation Program.
- Requirements for employee use of hearing protection when noise levels exceed the limits listed in section 1.1 above).
- Proper methods for selection, use, and care for hearing protection.
- Effects of noise on hearing and hearing loss.

RESPONSIBILITIES

Management Responsibilities

- Conduct noise surveys whenever new equipment, new activities, or work conditions create noise levels that could potentially exceed 85 dBA. Accurate records of employee exposure monitoring shall be maintained.
- Carefully check and calibrate instruments used to monitor noise levels.
- Provide hearing conservation training for all employees that are or could be exposed to noise levels that exceed 90 dBA.
Implement engineering and administrative controls to limit or reduce employee noise exposure.
- Develop and provide a list of work activities and the typical noise exposure levels associated with each activity. Post warning signs at locations that regularly have high noise levels.
- Provide adequate hearing protection for employees at all jobsites. At least two types of earplugs shall be made available and shall be individually fitted for each affected employee. Hearing protectors shall be provided free of charge to employees.
- Conduct annual hearing tests for all employees who are exposed at or above the 8-hour TWA of 85 dBA.

Employees Responsibilities

- Use company provided and approved hearing protection whenever informed that noise exposure in their work area exceeds OSHA permissible exposure limits as shown in Table D-2.
- Request and use hearing protection whenever working with or near loud equipment such as a plate tamp, chain saw, pipe saw, impact tool, metal grinder, or sheet pile driver. If you need to shout to be heard above background noise, you should use hearing protection.
- Once a person suffers some level of hearing loss, it can never be restored.

HEARING CONSERVATION CONTROLS

Engineering Controls

If noise exposure levels are determined to be above 85 dBA, engineering controls shall be considered prior to implementing administrative controls. Examples of engineering controls include:

- Replacing and/or upgrading exhaust mufflers.
- Insulating noise producing components or operations.
- Installing cabs or shields.

Administrative Controls.

If engineering controls alone are not sufficient to reduce noise exposure to permissible levels, administrative controls shall be implemented to limit noise exposure. Examples of administrative controls include:

- Restricting the time of exposure by rotating job duties.
- Posting signs to warn employees of the noise hazard.
- Providing hearing personal protective equipment such as ear muffs or ear plugs.

Personal Protective Equipment (PPE) for hearing protection shall be provided on all jobsites.

- Hearing protection shall be provided for optional use by employees when exposure levels are below 90 dBA.
- Use of hearing protection shall be mandatory for employees exposed to noise levels at or above 90 dBA.

Section 17: Bloodborne Pathogens

While the bloodborne pathogens standard as defined in 29 CFR 1910.12(b) does not apply to construction work, it does apply to employees performing maintenance activities who experience occupational exposure to blood or other potentially infectious materials. OSHA expects the construction employer performing maintenance activities to take the following precautions and requires that the employer instruct each employee in the recognition and avoidance of unsafe conditions and in the regulations applicable to his or her work environment in order to control or eliminate any hazards or other exposure to illness or injury. Under this provision, the employer is required to train designated first aid providers in the hazards of bloodborne pathogens.

GENERAL WORK PROCEDURES

Great Falls Construction personnel must follow these procedures for controlling exposure to bloodborne pathogens:

- Supervisors must ensure that their employees are trained in proper work practices, universal precautions, the use of personal protective equipment, and proper cleanup and disposal techniques.
- Engineering controls will be examined and maintained on a regular schedule to ensure their effectiveness.
- The company will provide resuscitation equipment and other ventilation equipment to eliminate the need for direct mouth-to-mouth contact for employees whose jobs would require them to perform resuscitation.
- Do not eat, drink, smoke, handle contact lenses or apply cosmetics in areas where exposure to bloodborne pathogens is possible.
- Wear disposable latex or vinyl gloves if:
 - a. you have cuts, abrasions, chapped hands, dermatitis or similar conditions;
 - b. you are examining a patient with an open skin wound and active bleeding;
 - c. you are handling blood, blood products or body secretions.
- Wear gowns, aprons or lab coats whenever there is a possibility that bodily fluids could splash on an employee.
- Perform procedures involving blood and other potentially infectious materials in such a manner that will minimize splashing or spraying.
- Wear protective clothing if entering a laboratory or work area where potentially infectious materials are handled.
- Wash your hands as soon as possible after handling potentially infectious materials, and after removing protective clothing and equipment.
- Remove all protective equipment when leaving the work area and, if the equipment is contaminated, place it in a proper storage container for washing, decontamination or disposal.
- Remove contaminated clothing before entering other areas of the building or leaving the building.

REPORTING

- Any employee who has suffered a cut, needle stick or mucous membrane exposure to another person's bodily fluids, or who has been exposed to human blood and blood products, must report the incident immediately to their supervisor.
- An employee covered under this program, or an employee acting as a "Good Samaritan," who has been exposed on the job to HIV, HAV, HBV or HCV will be tested at the time of exposure to determine if the virus has been transmitted. The employee will be re-tested at six weeks, 12 weeks and six months after exposure. All testing will be performed at company expense.
- The company will also contact the exposure source and request that that person to be tested, at company expense. The testing for this person is not mandatory, however, and refusal will not affect his or her employment.
- Test results will be provided to source and exposed employees within five business days of their receipt.
- Confidentiality will be maintained for both the exposed employee and the exposure source during all phases of the post-exposure program.

RECORDKEEPING

Great Falls Construction will maintain all exposure reports, training and HBV vaccination records. OSHA requires that records be kept for the duration of employment, plus 30 years, except training records which must be kept for 3 years.

Section 18: Asbestos Procedures

All employees who are required to work around asbestos containing materials shall be informed of the hazards, educated of the methods required to properly protect themselves from exposure and shall be trained to identify, properly handle, and dispose of them.

All rules and regulations pertaining to the handling of asbestos and other fibrous materials shall be in accordance with the following:

- Employees will be trained to identify materials that contain or could potentially contain asbestos.
- If a facility plan detailing locations of asbestos containing materials is available, this information will be provided to employees.
- No Great Falls Construction employee is authorized to disturb asbestos containing material.
- An asbestos abatement contractor will be hired to remove or perform work where asbestos containing materials will be disturbed.
- Asbestos Containing Material (ACM) is any material containing more than one (1) percent asbestos.

Section 19: Lead Protection Program

All employees who are required to work with lead containing materials shall be informed of the hazards, educated of the methods required to properly protect themselves from exposure and shall be trained to identify, properly handle, and dispose of them. This procedure is intended to safeguard employees against the hazards of lead exposure in accordance with 29 CFR 1926.62.

- a. Lead is a common material found both in the home and workplace and commonly found in paints, batteries, solder, lubricants, etc. Lead exposure primarily occurs through inhalation or ingestion and may occur by absorption throughout. Organs within the body will absorb some of the lead and some will be excreted. Human contamination by lead can be measured by blood analysis.
- b. Implementing safe work practices and personal hygiene requirements as directed greatly reduces the potential for lead contamination to employees and possible lead exposure to family members.
- c. No Great Falls Construction employee is authorized to work with lead containing material in a manner that will expose them above the OSHA action level of $30 \mu\text{g}/\text{m}^3$.
- d. A lead abatement contractor will be hired to remove or perform work where lead containing materials will be disturbed.

Section 20: Personal Protective Equipment (PPE) Program

- **Standard Work Clothing** – All employees at active construction projects are expected to wear shirts with sleeves. Generally, long pants are required, however, for certain projects and types of work, shorts may be acceptable and will be determined on a case-by-case basis. All work clothing and PPE shall be in good condition.
- **Head Protection** – Hard hats will be worn on all projects where there is a danger of a head injury from impact, from falling or flying objects, or from electrical shocks or burns. Hard hats will be worn when required by the client. An operator or driver inside the cab of a vehicle is not required to wear a hard hat.
- **Eye Protection** – Safety glasses shall be worn on all projects at all times. Prescription safety glasses shall have side shields.
- **Face Protection** – A face shield will be worn when performing tasks where flying debris is produced. Such activities include, but are not limited to chipping, grinding, welding, and the use of a chain saw.
- **Foot Protection** – Safety-toe work boots, maintained in good condition, shall be the minimum acceptable foot protection on all jobs. Steel shank boots are required for work at landfill projects, at building projects where there is a possibility of stepping on nails, and are recommended on all projects.
- **Hand Protection** – Gloves will be worn whenever practical to protect hands from cold, cuts, scratches, heat or abrasions when handling materials. The company will provide hand protection for unusual working conditions, such as chemical exposure, welding or jack hammering.
- **Hearing Protection** – Hearing protection (either earplugs or ear muffs) shall be worn when noise exposure is equal to or exceeds an 8-hour time-weighted average sound level (TWA) of 85 decibel (dBA). Earplugs or earmuffs are available to all employees for voluntary use.
- **High Visibility Clothing** – Workers are required to wear high visibility clothing when working in the vicinity of moving equipment and/or trucks.
- **Barricade Tape** – If any hazard exists, (overhead, housekeeping, etc.), barricade tape must be utilized. Yellow barricade tape means there is a hazard past the tape, but you may enter the area using extreme caution. Red barricade tape means there is a severe hazard that could serious harm and no admittance is allowed.
- **Other: Earbuds** – The use of only one earbud is allowed in the active work area and only in locations where the work task being performed is not considered hazardous. Music shall be played at a reasonable volume.
- **Employee Supplied/Owned PPE** - Where employees provide their own protective equipment, the employer must assure its adequacy, including proper maintenance, and sanitation of such equipment.

Section 21: Material Storage and Handling

PURPOSE

The purpose of this section is to provide guidelines to assist in developing and implementing procedures to prevent injuries and accidents when storing and handling materials at Great Falls Construction projects.

SCOPE

These policies apply to all material storage and handling activities for all operations and subcontractors working at our projects.

RESPONSIBILITIES

Project supervisors will advise employees on the proper storage and handling of materials at each project. They will periodically confirm safe procedures are implemented. Employees are expected to follow all recommended procedures.

SAFE WORK PRACTICES

Recognizing and implementing proper storage and material handling procedures will help in conserving materials and equipment, reduce the chance of injuries and increase productivity. Safe work practices help with the smooth flow of materials to the work area, lower the chance of injuries and accidents and improve the overall quality of work. Observe and implement the following work practices at work project or assigned work area:

- Both temporary and permanent storage areas should be kept neat, clean and orderly.
- Materials and supplies shall be securely stacked, blocked, interlocked and limited in height so as to be stable and in no danger of collapsing, sliding, or falling over.
- When planning material storage, a minimum of 24 inches of clearance must be allowed under sprinkler heads.
- Unobstructed access to electrical boxes and automatic sprinkler controls must be maintained.
- There must be unobstructed access to fire hoses and fire extinguishers.
- When storing materials, remember to leave adequate access. Do not block aisles or emergency exits – they must be left clear for egress.
- Materials shall be segregated by kind, size and length, and organized in a manner that will prevent them from falling.
- If piles are stacked, the material shall be stepped back and shall be secured to prevent them from falling or being displaced.
- Passageways shall be maintained when piles are arranged.
- Storage racks shall be secured to the walls and or floors. Employees shall not climb racks.
- Damaged racks shall not be used.
- Proper tools and equipment shall be provided to assist in the movement of materials.

- Supervisors must plan for the most efficient and safe arrangement of stored materials.
- Employees shall be trained on the proper handling of materials and their physical abilities will be considered to reduce the chance of injury.
- If unusual hazards of dangerous conditions are present, prior to starting work, a plan to eliminate or reduce any hazards to the greatest extent possible will be developed and communicated to all employees.
- Flammable and toxic or other harmful materials shall be stored in properly designated and well ventilated areas. Observe and abide by “No Smoking” and other warning signs.
- Do not attempt to lift heavy loads without assistance. Learn how to lift properly by bending knees and keeping your feet together.
- Avoid stacking non compatible materials in the same piles.
- When pulling or prying objects, be sure that you are properly positioned, balanced, and in the clear so you will not be caught or thrown off balance if the pry slips or the piece suddenly gives.
- Riding on bumpers, fenders, running boards, or the sides of equipment is prohibited.
- Maintain good housekeeping procedures throughout the jobsite at all time and properly dispose of any scrap of waste materials.
- Properly chock or block trucks during unloading.
- Provide proper personal protective equipment to employees handling certain materials or equipment.
- Only properly trained personnel shall handle hazardous materials.
- Report any unsafe conditions. By reporting, the process can be reviewed and safe procedures implemented.

Section 22: Housekeeping and Sanitation

Good housekeeping is an important factor in accident prevention and must be a primary concern to all jobsite personnel.

Good housekeeping is one of the best indications that a job is being well controlled and efficiently run. Further, poor housekeeping contributes to jobsite hazards ranging from trip hazards to fire hazards.

Responsibility for Good Housekeeping

- It is the responsibility of the every person on a job to correct poor housekeeping as the job progresses, not after the work is done.
- While it is everyone's responsibility to ensure good housekeeping, it shall be the supervisor's job to assure that it is an ongoing practice.
- Subcontractors shall be responsible for their own housekeeping duties, and Great Falls Construction supervisors shall enforce this common sense rule.
- Adequate lighting shall be provided in or around all work areas, travelways, stairs, ladders, and other areas used by personnel.
- Unobstructed access must be maintained at all times to areas such as electrical panels and disconnects, fire extinguishers, stairways, and emergency exits.
- **Trip Hazards.** A continuous effort to eliminate trip hazards, remove flammable debris, stack lumber, remove or bend nails from scrap and generally keep work areas free of hidden traps and hazards contributes greatly to efficiency on our jobsites and the safety of our employees.
- **Slippery Surfaces.** Snow shall be removed from stairways, travelways, work areas, and platforms. Icy walking/working surfaces shall be sanded to prevent slips and falls wherever possible. Ice cleats shall be worn on large jobsites where it is not possible or practical to sand all slippery walking/working surfaces.

Sanitation

- Adequate sanitary facilities to accommodate the number of workers on a project shall be provided and maintained for the duration of a project.
- Temporary toilets shall be maintained, cleaned and emptied whenever necessary. Adequate toilet paper and hand sanitation shall be provided. All toilets shall be constructed to shield occupants from view, protect against weather conditions, and be protected from falling objects.
- Toilet facilities shall be lighted and ventilated.

Drinking Water

- An adequate supply of fresh potable water shall be provided and at an accessible location. Potable water containers must be capable of being tightly closed and equipped with both a tap and paper cups.
- A receptacle for disposing of used cups should be provided.
- The use of a common dipper to dispense drinking water is prohibited.
- Any container used to distribute drinking water shall be clearly marked as to the contents and indicate that it should not be used for any other purposes.
- Portable water containers must be cleaned daily.

Section 23: Powder-Actuated Tools

GENERAL SAFETY REQUIREMENTS

- Any employee who operates powder-actuated tools shall be trained in their use and carry a valid operator card.
- All powder-actuated tools, fasteners and cartridges shall be properly stored in their locked containers when not in use.
- Powder-actuated tools shall be inspected for obstruction or defects each day before use. All moving parts must operate freely.
- Powder-actuated tools shall be inspected and operated in accordance to the manufacturer's recommendations.
- Personnel using powder-actuated tools must use appropriate personal protective equipment such as hard hats, safety glasses or goggles, safety shoes and hearing protection.
- If the tool is not in use, it must be unloaded and cleaned.
- Powder-actuated tools shall not be loaded until just before the intended firing time.
- Neither loaded nor empty tools should be pointed at any individual (or the operator).
- Hands shall be kept clear of the open barrel end.

POWDER-ACTUATED FASTENERS

- Fasteners should not be driven into soft or easily penetrable materials unless they are backed by material that will prevent the fastener from passing through to the other side.
- Do not drive fasteners into hard, brittle materials. Examples would include, cast iron, tile, glass blocks, or bricks.

EACH TOOL SHALL HAVE THE FOLLOWING:

- A secure location where the powder-actuated tool can be stored when not in use.
- Operator's instruction and service manual.
- Power load and fastener charts.
- Tool inspection record.
- Service tools and accessories.

Section 24: Hand and Power Tool Safety

GENERAL SAFETY RULES

- Power tools shall not be used if safety equipment such as shields, tool rests, hoods, and guards have been removed or otherwise ruled inoperative.
- Employees using tools under conditions that expose them to the hazards of flying objects or harmful dusts shall be provided with the required personal protective equipment.
- All electrically powered tools shall be properly grounded. Outlets used for 120-volt tools shall be protected by ground fault circuit interruption devices.
- Portable grinders should be provided with hood type guards with side enclosures that cover the spindle and at least 50% of the wheel. All wheels should be inspected regularly for signs of fracture or uneven wear.
- Bench grinders shall be equipped with deflector shields and side cover guards. Tool rests shall have a maximum clearance of 1/8 inch from the wheel.
- Hoses supplying pneumatic tools shall have couplings secured to prevent accidental disconnection.
- Air-supply lines should be protected from damage, inspected regularly and maintained in good condition.
- Air source supply hoses exceeding 1/2 inch ID shall be protected by excess flow valves to prevent “whipping” in the event of hose separation or hose failure.
- The pressure of compressed air used for cleaning purposes must be reduced to 30 psi or less (at no time will employees employ the use of compressed air to clean or blow off themselves or fellow workers).

HAND TOOLS AND EQUIPMENT

- All tools and equipment found to be defective will be reported to your immediate supervisor so that it may be returned to the shop for repair.
- Only appropriate tools designed specifically for the job shall be used unless otherwise approved by management.
- Appropriate personal protective equipment shall be worn while using hand tools or equipment which might produce flying materials.
- Remove all adjusting tools and wrenches before turning on tools.
- Do not use tools with frayed cords or loose or broken switches.
- Keep all tool guards in place and in working order. Defective tools shall be tagged and returned to the shop for repair.
- Removal of any ground plug shall be grounds for disciplinary action.
- Ground plugs will be in place on all tools, unless tools are specifically marked “double-insulated.”
- Keep alert to potential hazards in the working environment such as damp locations or the presence of combustible materials.
- Only hand held tools with a “dead man” or a “quick release” control which automatically shuts-off the power supply shall be used.
- Employee owned tools shall not be used unless authorized and approved by the company.

- All pneumatic and hydraulic hoses on power-operated tools shall be checked regularly for deterioration and damage.

MACHINE GUARDING

- No guard, barrier or enclosure on any tool or equipment will be removed unless authorized by the company.
- Before any safeguards or guarding devices are removed so that repairs or adjustments can be made, the power for the equipment must be turned off and the main switch locked and tagged.
- No machine shall be started unless the guards are in place and in good condition.
- Defective and missing guards should be reported to the supervisor of the company immediately.
- Workers will be prohibited from working on or around mechanically operating equipment while wearing any clothing which may cause the operator to get caught into or entangled.

BELT SANDING MACHINES

- Belt sanding machines must be provided with guards at each nip point where the sanding belt runs onto a pulley.
- The unused run of sanding belt must be guarded against accidental contact.

BAND SAWS

- All portions of band saw blades must be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table.
- Band saw wheels must be fully encased.

SAWS, PORTABLE CIRCULAR

- Portable, power-driven circular saws must be equipped with guard above and below the base plate or shoe.
- The lower guard must cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work, and must automatically return to the covering position when the blade is removed from the work.

SAWS, RADIAL

- Radial saws must have an upper guard which completely encloses the upper half of the saw blade. The sides of the lower exposed portion of the blade must be guarded by a device that will automatically adjust to the thickness of and remain in contact with the material being cut.
- Radial saws used for ripping must have no kickback fingers or dogs.
- Radial saws must be installed so that the cutting head will return to the starting position when released by the operator.

SAWS, TABLE

- Circular table saws must have a hood over the portion of the saw above the table, so mounted that the hood will automatically adjust itself to the thickness of and remain in contact with the

material being cut.

- Circular table saws must have a spreader aligned with the blade, spaced no more than 1/2 inch behind the largest blade mounted in the saw. This provision does not apply when grooving, dadoing, or rabbeting.
- Circular table saws used for ripping must have no kickback fingers or dogs.
- Feed rolls and blades of self-feed circular saws must be protected by a hood or guard to prevent the hands of the operator from coming in contact with the in-running rolls at any time.

GRINDERS AND ABRASIVE WHEEL EQUIPMENT

- The work rest area on all fixed and portable bench grinders will be adjusted and kept to within 1/8 inch of the wheel.
- The adjustable tongue on the top side of the grinder will be adjusted and kept to within 1/4 inch of the wheel.
- Goggles and appropriate face shields shall always be worn when performing any grinding operation.
- Only compatible abrasive wheels matching the RPM rating of the grinder motor shall be used.
- Before installing any new abrasive wheel a visual inspection and ring test will be made.
- The area around the grinder shall be kept clean.

Section 25: Scaffold Safety

GENERAL SAFETY REQUIREMENTS

Use of scaffolding shall comply with OSHA 1926, Subpart L. Listed below are some of the requirements:

- Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design under the direction of a competent person. The competent person shall inspect the scaffolding daily.
- All scaffolding components must be included in the scaffolding system prior to use. Any scaffolding not completed and safe to use must be wrapped in red danger tape.
- Footing or anchorage for scaffolds shall be sound, rigid and capable of carrying the maximum intended load without settling. Unstable objects such as bricks and concrete blocks shall not be used to support scaffolding or planks. Scaffold systems must be erected and plumbed level.
- Guardrails, mid-rails, and toe-boards must be installed on all open sides and ends of platforms over 6 feet in height.
- A personal fall arrest system may also be used for fall protection if working on a platform greater than 6 feet, without guardrails installed.
- Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and guardrail supports.
 - i. Scaffolds and their components shall be capable of supporting at least four times the intended load.
 - ii. Platform planks will be 2 inches minimum (full dimension & scaffold grade).
 - iii. Scaffold walkways shall be at least 18 inches wide.
 - iv. The front edge of all platforms shall not be more than 1 inches from the face of the work unless guardrails or personal fall arrest systems are used.
 - v. All planked platforms shall be overlapped 12 inches (minimum) or secured from movement.
 - vi. Scaffold planks shall not extend over end supports less than 6 inches or more than 12 inches.
 - vii. An access ladder or equivalent shall be provided.
- Scaffolds with a height to width ratio of more than 4:1 will be secured to buildings and/or structures at intervals not to exceed 30' horizontally and 26' vertically (20' vertically for scaffolds 3' wide or less).
- Manually propelled mobile scaffolds shall not exceed four times the minimum base dimension. All casters shall be provided with a positive locking device and shall be locked when employees are on the mobile scaffold.

Baker Style Staging/Scaffold (Narrow Frame Scaffold)

Great Falls Construction commonly uses a scaffold system referred to as Baker Staging. This is a narrow frame scaffold with wheels and has an end width measuring less than 3 feet. It is designed to be easily moved where workers must frequently change positions.

The following safety rules should be followed when using Baker Staging:

- Baker scaffolds, greater than 1 frame in height, shall have a guardrail system (e.g., top rail, mid rail, toe board) installed at all working levels.
- Baker scaffolds greater than 2 frames in height shall have the manufacturer supplied outriggers installed, to prevent tipping.
- The wheels on Baker and mobile frame scaffolds shall be locked when the scaffolds are in use.
- Baker and mobile frame scaffolds shall not be moved with personnel on them.

Inspection of Scaffolding – Tag System

Before using any scaffold, it should be confirmed the system is safe to use. This can be determined by looking for a scaffold tag indicating one of three things in one of three colors.

- Red Tag – ‘Warning. Do Not Use This Scaffold. Keep Off.’ This scaffold is being erected or taken down. Only authorized employees using required personal protective equipment may work on this scaffold.
- Yellow Tag – ‘Caution. This Scaffold Does Not Meet Federal/State OSHA Specifications.’ Employees working from this scaffold must wear and use an approved safety harness.
- Green Tag – ‘Attention.’ This scaffold has been erected to meet all Federal/State OSHA requirements and is safe for all craftwork. Do Not Alter.

Design, setup, modification, use and dismantling of scaffolds shall be done only under the supervision of a Competent Person who is qualified. Even when a scaffold has a green tag indicating it is safe for use, a visual inspection by the user should be done to confirm the following.

Section 26: Mobile Cranes

Most crane work is subcontracted at projects managed by Great Falls Construction. However, there are some basic rules and requirements everyone should be aware of when working with or near cranes.

GENERAL REQUIREMENTS

- Use of cranes shall comply with OSHA 1926 Subpart CC – Cranes and Derricks in Construction, and manufacturer’s specifications and limitations.
- Proof of a current yearly inspection performed by a qualified person shall be affixed to each crane or shall be kept on file at project sites.
- Proof of crane operator’s qualifications shall be kept on file at project sites.
- Rated load capacities and recommended operating speeds, warnings or instructions shall be conspicuously posted on all equipment. Operators of cranes shall comply with all manufacturer procedures applicable to the operational functions of equipment, including its use with attachments. Any modifications or additions must be approved by the manufacturer and provided in writing. A registered professional engineer must be qualified with respect to the equipment involved, and must ensure the original safety factor of the equipment is not reduced.
- Competent person(s) shall inspect and document all cranes prior to use each day. In addition, rigging equipment and/or lifting devices shall be inspected prior to and during use. Safety devices on all equipment must be in proper working order before operations begin. If any of the devices are not in proper working order the equipment must be taken out of service and operations must not resume until the device is working properly again.
- Accessible areas within the swing radius of the rotating superstructure of the crane shall be barricaded to prevent an employee from being struck or crushed by the crane.
- Materials shall not be craned over workers. Only employees essential to the crane operation are permitted to be within the fall zone, and they shall not be directly under the load.
- To prevent encroachment/electrocution, when a crane is capable of reaching within 20 feet of a live electrical line, a warning line shall be erected and maintained at the minimum approach distance. If the operator is unable to see the warning line, there shall be a dedicated spotter who is in continuous contact with the operator.
- Persons giving signal directions to crane operators must have documented proof of signal training. When using hand signals, the Standard Method shall be used. A hand signal chart shall be posted on the equipment or conspicuously posted in the vicinity of the hoisting operation.
- Equipment must not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer’s specifications for adequate support and degree of level of the equipment are met.
- All manufacturer procedures and prohibitions must be complied with when assembling and disassembling equipment. In addition, assembly/disassembly of equipment must be directed by a competent and qualified person.

- Whenever there is a safety concern, the operator must have the authority to stop and refuse to handle loads until a qualified person has determined that the load is safe to lift.

Section 27: Vehicle Safety

Employees of the company may be issued a company-owned vehicle in order to perform his/her duties associated with the company. For those employees eligible for a company vehicle, every effort will be made to provide a vehicle that is both functional and reliable. This policy is established to provide clear guidelines to all employees of the company who are either issued a company vehicle or compensated for business travel. Whether an employee has a company vehicle or uses his/her personal vehicle for business travel, our goal is to assure that all drivers are responsible for driving safely, courteously, and abide by all laws where they operate a vehicle while on company business.

Use of a company owned vehicle. Company owned vehicles are to be used only to perform an employee's specific job responsibilities. No personal use of company vehicles is allowed. No other individuals are permitted to operate a company-owned vehicle. All drivers must have a valid driver's license issued by the State in which they are a legal resident.

Prior to driving a company vehicle, an employee will have his/her motor vehicle record checked to ensure they meet the requirements of our vehicle insurance carrier. If a driver does not meet our insurance carrier's requirements or has his/her driver's license has been revoked, restricted, or suspended, that driver is not eligible to drive a company vehicle. All drivers must report any convictions of a moving violation within 30 days of conviction to the company.

Employee responsibilities:

- All drivers and passengers in company vehicles are required to wear seatbelts at all times.
- Smoking is prohibited in company owned vehicles.
- The use of a company vehicle by a driver who is under the influence of alcohol or drugs is strictly forbidden and may be grounds for disciplinary action up to and including termination.
- Drivers are responsible for ensuring all necessary precautions are taken to prevent damage and theft of the assigned vehicle and its contents. Drivers should roll up windows, lock all doors, and do not leave small equipment in open view.
- Drivers must obey all traffic laws and operate the vehicle in a safe and courteous manner.
- Drivers are responsible for the cost of traffic citations and parking tickets.
- Drivers must visually observe the vehicle, at least monthly, to ensure that the vehicle is in proper operating condition.
- The use of handheld cell phones while driving is prohibited. If a driver receives a phone call while driving, he/she should pull off the road as soon as it is safe to do so. The only exception to this rule is the use of Bluetooth or a hands-free option.
- It is recommended that drivers keep the following support and safety items in their vehicle at all times: flashlight, map or road atlas, windshield wiper fluid, fire extinguisher, small first aid kit, seasonal items, such as shovel, snow brush, and ice scraper. These items will be furnished by the company.
- The interior of all company vehicles should be kept clean at all times.

Section 28: Aerial Work Platform (AWPs) Safety

An Aerial Work Platform is any vehicle used to elevate personnel, including boom-supported elevated work platforms (aerial boom lifts) and elevated work platforms (scissor lifts).

GENERAL REQUIREMENTS for both Aerial Boom Lifts and Scissor Lifts.

- Only trained and authorized operators will be permitted to operate aerial boom and scissor lifts.
- All lifts must have the owner/operator's manual on or inside the equipment. Read and follow all warnings, cautions and operating instructions on the machine and in the operator's manual for the type of lift being used.
- A pre-operation inspection checklist must be performed and documented prior to use to confirm safe operating conditions.
- Any lift not passing the pre-operation inspection or a lift malfunctioning while in use will be tagged out of service until repaired.
- Manufacturer specified load limits shall not be exceeded.
- All instructions and controls must be plainly marked and legible.
- Lifts may not be operated near electric power lines unless the lines have been de-energized or adequate distance is maintained.
- All work being performed near energized power lines will be evaluated by the project supervisor.
- Ground controls will not be operated unless permission has been obtained from personnel in the platform (except in case of emergency).
- Both feet must always be firmly positioned on the platform floor. Do not sit on or climb the rails.
- Do not use ladders, boards or other items positioned on rails or platforms to raise working height.
- Do not use the drive or telescope features of the machine to move either the machine or other objects.

GENERAL RULES FOR OPERATION of Aerial Boom Lifts and Scissor Lifts.

- Work platforms and baskets must be kept in a lowered position during travel.
- The speed of machines shall be limited according to conditions of the ground surface, congestion, visibility, location of ground personnel, and other hazards.
- Never use aerial lifts to hoist materials. (They are not cranes).
- Maintain good housekeeping in the basket and on the work platform.
- Enter and exit carefully through the gate only.
- Know the weight of workers, tools and materials on the platform. Never exceed the manufacturer's capacity.
- Do not allow ground personnel in areas under or around a raised platform.
- All personnel on the work platform should be familiar with the location and operation of all safety/override controls and able to the lower machine in case of an emergency.
- Use all outriggers and stabilizers as intended on the machine.

- All tools and equipment must be secured inside the platform and not expose ground personnel to potential struck by hazards.
- Never leave the work basket in an elevated position. Lift must not be used to access elevated surfaces unless a plan is developed and authorized.

AERIAL LIFTS (in addition to the items above)

- All personnel in the platform basket will wear a safety harness with lanyard or fall restraint system that will not allow the employee to fall more than six (6) feet and is attached to a factory tie off point.
- Always post a spotter when driving in areas where vision is restricted.
- Know your path of travel and identify any obstructions or hazards.
- Beware of clearances and overhead obstructions.
- Always position the boom in line with direction of travel.
- Keep your attention fixed on the direction of travel.
- Do not operate on slopes or grades exceeding those recommended by manufacturer.
- Check clearance above and on sides when raising or lowering the boom or when swinging or telescoping.
- On boom lifts, check tail swing clearance before swinging.
- Ensure workers around lift are protected from swing radius and potential struck by or caught in between hazards.

SCISSOR LIFTS (in additional to the items above)

- Must be operated on a level, firm surface with no obstructions.
- A harness is not required to operate a scissor lift unless required by the manufacturer or the general contractor on a project.

Section 29: Ladder Safety

GENERAL

- Ladder users shall read and follow all manufacturer instructions and capacity ratings printed on the ladder.
- Ladders must be inspected prior to each use.
- All ladders shall be secured against slipping.
- Do not use a ladder on unstable, uneven or slippery surfaces unless protected against accidental displacement.
- If the instructions on a ladder are not legible, the ladder must be taken out of service until new stickers have been placed on the ladder.

LADDER USE

- When portable ladders are used for access to an upper landing surface, the ladder side rails must extend at least 3 feet (0.9 m) above the upper landing surface. When such an extension is not possible because of the ladder's length, the ladder must be secured at its top to a rigid support that must not deflect, and a grasping device, such as a grab rail, must be provided to assist employees in mounting and dismounting.
- In no case must the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip from its support.
- Ladders must be kept free of oil, grease, and other slipping hazards.
- Ladders must not be loaded beyond the maximum intended load for which they were built, or beyond their manufacturer's rated capacity. This calculation includes the user, tools, equipment and materials.
- Ladders must have nonconductive side rails if they are used where the employee on the ladder could contact energized electrical equipment.
- The top and top step of a stepladder must not be used as a step.
- Cross-bracing on the rear section of stepladders must not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear surfaces.
- Single-rail ladders must not be used.
- When ascending or descending a ladder, the user must face the ladder. This includes ladders used to access mobile equipment.
- Employees must not carry any objects or load that could cause the employee to lose balance and fall.

ASCENDING OR DESCENDING LADDERS

- Have both hands available when going up or down a ladder. If material must be handled; raise or lower it with a rope either before going down or after climbing to the desired level.
- Always face the ladder when ascending or descending.
- Never slide down a ladder.
- Be sure that shoes are not greasy, muddy, or slippery before you climb.

- Do not stand higher than the third rung from the top on straight or extension ladders or the second tread from the top of stepladders.
- Tools shall be carried on a tool belt.
- Do not use makeshift ladders, such as cleats fastened across a single rail.
- Be sure that a stepladder is fully open and the metal spreaders locked before you start to climb it. All four feet of the stepladder shall be on firm level ground.
- Before using a ladder, inspect it for defects. Remove from service if defects that impact the safe use of the ladder are identified.
- Never use a defective ladder. Tag or mark it so that it will be repaired or destroyed.
- Do not splice or lash short ladders together. They are designed for use in their original lengths and are not strong enough for use in greater lengths. Also most splicing methods, particularly “on-the-job methods”, are not recommended.
- Keep ladders clean and free from dirt and grease, which might conceal defects.
- Do not use ladders during a strong wind except in emergency, and then only when they are securely tied.
- Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes.
- Adjustment of extension ladders should only be made by the user when standing at the base of the ladder, so that the user may observe when the locks are properly engaged. Never attempt adjustment while user is standing on the ladder.
- The maximum length of a straight portable ladder is 30 feet. On two-section extension ladders, the minimum overlap is specified by ANSI 14.5-1982.
- Electrical hazards and metal ladders. Since metal ladders are electrical conductors, they should not be used around energized electrical circuits or equipment of in places where they may come in contact with electrical circuits. The importance of these electrical hazards cannot be overemphasized, and those using metal ladders should be warned of the danger. Many construction projects forbid metal ladders.
- In addition to this warning, metal ladders should be marked with signs or decals reading CAUTION - DO NOT USE NEAR ELECTRICAL EQUIPMENT. These decals may be placed on the inside of the side rails at about eye-level from the bottom of the ladder.

LADDER STABILITY

- No-self-supporting ladders must be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and top support).
- Wood job-made ladders with spliced side rails must be used at an angle such that the horizontal distance is one-eighth the working length of the ladder.
- Fixed ladders must be used at a pitch no greater than 90 degrees from the horizontal, as measured to the back side of the ladder.
- Ladders must not be used on slippery surfaces unless secured or provided with slip-resistant feet. Slip-resistant feet must not be used as a substitute for care in placing, lashing, or holding a ladder that is used upon slippery surfaces including but not limited to, flat metal or concrete surfaces that are constructed so they cannot be prevented from becoming slippery.

- Ladders placed anywhere they can be displaced by workplace activities or traffic, such as in passageways or driveways, must be secured to prevent accidental displacement or a barricade must be used to keep the activities or traffic away from the ladder.
- The area around the top and bottom of ladders must be kept clear.
- The top of a non-supporting ladder must be placed with the two rails supported equally unless it is equipped with a single support attachment.
- Ladders must not be moved, shifted or extended while occupied.

LADDER REPAIR

- Ladders must be inspected by a competent person of visible defects on a periodic basis and after any occurrence that could affect their safe use.
- Portable and fixed ladders with structural defects, such as, but not limited to broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, will be reported to supervision, and will not be used until repaired.
- The requirement to withdraw a defective ladder from service is satisfied if the ladder is either:
 - a. Immediately tagged with “ DO NOT USE “ or similar language;
 - b. Marked in a manner that readily identifies it as defective; or
 - c. Blocked (such as with a plywood attachment that spans several rungs).
- Ladder repairs must restore the ladder to a condition meeting its original design criteria before the ladder is returned to use.

Section 30: First Aid, CPR and AED Program

- In the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, a person who has a valid certificate in first aid shall be available at the worksite.
- First aid, CPR and AED training must be obtained from the American Red Cross, National Safety Council, or equivalent organization. Training shall be documented and a certificate of training provided.
- First aid supplies shall be easily accessible when required. First aid kits shall consist of appropriate items which will be adequate for the environment in which they are used. For construction operations, items shall be stored in a weather proof container with individually sealed packages of each type of item.
- In addition to the availability of adequate first aid supplies, first aid kits will be periodically reassessed to meet demand and to ensure supplies are appropriate. For construction operations, first aid kits shall be checked before being sent out to each job and at least weekly.
- Proper equipment for prompt transportation of the injured person to a physician or hospital or a communication system for contacting necessary ambulance service shall be provided and posted at all projects.
- Where the eyes or body of any person may be exposed to corrosive materials that could cause injury, suitable facilities shall be provided within the work area.

Section 31: Fire Prevention and Protection

GENERAL RULES AND REQUIREMENTS

- All employees shall take appropriate measures to prevent fires within their work areas on the job site.
- If a fire results in property damage, notification to Great Falls Construction reporting extent and estimated cost shall be made. An investigation shall be conducted to determine cause with factual information gathered for a formal report.
- All employees must allow access to their work sites for purpose of fire prevention / suppression. Such access shall be maintained in a serviceable condition suitable at all times for use by fire-fighting equipment.
- **OPEN FIRES WILL NOT BE PERMITTED.** If required for the performance of the work, it shall be the responsibility of the supervisor to maintain all heaters, bearing the Underwriter's Laboratories label and approved by the Great Falls Construction Safety Manager, in proper working order and to provide properly trained personnel in attendance at all times while the heaters are in operation. A tip-over device shall be included with any portable space heating equipment.
- Torch-cutting and welding operations for any type of work will be performed in accordance with the applicable fire and safety regulations. Tarpaulins used in connection with torch-cutting and welding operations must be fire resistant.
- Combustible materials shall be stored in accordance with OSHA 1926.152. Not more than one (1) day's supply of combustible materials or containers may be stockpiled in one location within any given building. Supplemental fire-fighting equipment shall be located in the vicinity of such containers and materials.
- All combustible waste materials, rubbish, and debris shall be removed daily.
- Temporary fire-fighting or fire protection equipment shall be replaced immediately after use.
- Storage of oxygen, acetylene, and other welding gases contained in pressurized cylinders is not permitted within buildings. Employees are required to maintain all pressurized gas cylinders in use, secured in approved safety carts. Reserve and empty cylinders must be stored at least 25 feet from buildings, with safety caps on the cylinders and secured to prevent falling.

SPECIFIC FIRE PREVENTION GUIDELINES

- Fires, Open flame devices, etc., will not be permitted in or around combustible materials. If it is necessary to have welding operations or open fire devices in use at hazardous locations, such operations shall be attended and an approved type of fire extinguisher must be available in the immediate vicinity. It may be necessary to use fire resistant blankets and wet down the area before starting welding operations. An after shift inspection is to be made to insure that no fire hazards are present.
- No smoking is permitted except in designated areas on the job site.
- Flammable and combustible materials will be separately and properly stored.
- Refueling of equipment while motor is running will be prohibited.

- All rubbish will be cleaned from work areas daily and good housekeeping practices will be enforced over the entire work area.
- Approved safety waste cans shall be provided for disposal of oily rags or other combustible materials. Flammable liquids shall be contained in proper safety cans in work areas. These cans will be labeled as to their contents.
- Fire protection equipment shall be made available during jobs so that in the event of a fire, it may be controlled immediately.
- Portable heaters must be approved for use. Generally, such heaters must be UL approved and must be located and used in accordance with applicable fire codes in properly vented areas.

FLAMMABLE AND COMBUSTIBLE MATERIALS

- Only approved containers supplied by the company shall be used for storage and handling of combustible and flammable liquids.
- It shall be the responsibility of the worker to properly close containers of flammable liquids while not in use.
- All fuel gas cylinders shall be kept free from any source of ignition.
- Fire extinguishers shall be clear of any obstruction so as not to restrict their use.
- Workers shall obey all “NO SMOKING” signs which are posted in areas where flammable or combustible liquids are used or stored.
- Spills of flammable or combustible liquids shall be cleaned up promptly and disposed of properly.

Section 32: Welding and Cutting Safety

GENERAL REQUIREMENTS

- A fire extinguisher shall be immediately available for all hot work operations.
- **Fire Watch.** For hot work where there is a fire hazard (flammable liquids, gases, or solids), a fire watch shall be posted and water hose will be used where practical.
 1. The assigned fire watch must be trained in the use of fire extinguishing equipment and familiar with the facilities for sounding an alarm in the event of a fire.
 2. When a fire watch is required, they shall be maintained at least a half hour after the welding or cutting operation is completed.
- **Eye and Face Protection.** A welder or cutter and helper shall use both eye and face protection.
- **Gas Cylinders.** All gas cylinders shall be handled in accordance with OSHA Standards.
 1. Gas cylinders shall be transported and stored in vertical position.
 2. Gas cylinders shall be secured or chained upright to prevent tipping.
 3. Caps shall be installed on gas cylinders when not in use.
 4. Oxygen shall not be stored with any fuel gases. Oxygen shall be stored a minimum distance of 20 feet from fuel gas cylinders and other combustible materials in storage or separated by a noncombustible barrier with a fire resistance rating of at least 30 minutes.

ARC WELDING

- Frames of all Arc welding/cutting machines shall be grounded unless mounted on a rubber tire vehicle.
- All ground connections shall be inspected daily to ensure they are mechanically strong and adequate for the required current.
- All cables shall be completely insulated and flexible – capable of handling maximum current requirements.
- Repairs or splices in cable shall be insulated with a capacity equal to that of the original cable, and shall not be allowed within 10' of the electrode holder.
- Flash shields shall be used whenever employees may be exposed to welding flash.

OTHER REQUIREMENTS

- Training. Cutters or welders and their supervisors shall be trained in the safe operation of their equipment and safe use in the surrounding work area.
- If the object to be welded or cut cannot readily be moved, all moveable fire hazards should be removed from the work area.
- If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shields, fire blankets, etc. shall be used to confine the heat, sparks and slag and to protect the immovable fire hazards.
- If fire hazards cannot be taken to a safe place or guards cannot be used to confine heat, sparks, slag and protect the immovable fire hazards, the welding/cutting shall not be performed.

- Before welding/cutting is permitted the area shall be inspected, and when required, a written permit shall be used to authorize welding and cutting operations.
- Any welding, cutting or burning of lead base metals, zinc, cadmium, mercury, beryllium or exotic metals or paints not listed here shall have proper ventilation or respiratory protection.
- Operators of equipment should report any equipment defect or safety hazards and discontinue use of equipment until its safety has been assured.
- Repairs shall be made only by qualified personnel.

Section 33: Rigging Equipment

RIGGING EQUIPMENT AND SAFE RIGGING PRACTICES

- Materials shall be rigged by a qualified rigger, who by his/her knowledge, training, and/or experience has demonstrated the ability to analyze the weight, shape, and other rigging requirements for the materials and properly rig the load.
- Slings and other rigging equipment used to lift materials shall be properly certified, inspected, and stored, and shall be used only for that purpose. Rigging equipment shall be inspected by a qualified person prior to each use.
- Chain slings shall be inspected annually by a qualified third party rigging inspector, and the results of the inspection shall be documented and available for review.
- Rigging equipment not in use shall be removed from the immediate work area so as not to present a hazard to employees. Defective rigging equipment shall be immediately tagged out of service and shall not be used.
- Rated sling capacities as determined by the sling manufacturer shall not be exceeded.
- Rated capacities shall be clearly labeled on all slings, lifting devices and rigging hardware.
- Tag line(s) shall be used when necessary to help control the load. No person shall be in direct contact with a suspended load while it is being transported.
- Knots shall never be used to shorten or make connections in rigging equipment.

WIRE ROPE SLINGS SHALL BE REMOVED FROM SERVICE WHEN:

- Six randomly distributed broken wires in one rope lay or three broken wires in one strand in one rope lay.
- Wear or scraping of one-third the original diameter of outside individual wires.
- Kinking, crushing, bird caging, or similar damage results in distortion.
- End attachments are cracked, deformed, or worn.
- Exposure to temperature in excess of 180 degrees Fahrenheit (fiber-core) or 400 degrees Fahrenheit (non-fiber core). Reference ASME B30.9.
- Corrosion of the rope or end attachments occur.

NATURAL AND SYNTHETIC FIBER ROPE SLINGS SHALL BE REMOVED FROM SERVICE WHEN:

- Abnormal wear is observed.
- Powdered fibers are found between strands.
- Fibers are cut or broken.
- There are variations in the size or roundness of strands.
- There is discoloration or rotting.
- There is distortion of sling hardware.
- Exposed to temperatures in excess of 180 degrees Fahrenheit.

SYNTHETIC WEB SLINGS SHALL BE REMOVED FROM SERVICE WHEN:

- Subjected to acid or caustic burns.
- Melting or charring of any part of the sling surface occurs.
- Snags, punctures, tears, or cuts are observed.
- Stitches are worn or broken.
- Fittings are distorted.
- Exposed to temperatures in excess of 180 degrees Fahrenheit (polypropylene web).

ALLOY STEEL CHAIN SLINGS

- Missing or illegible sling identification.
- Cracks or breaks.
- Excessive wear, nicks, or gouges.
- Stretched chain links or components.
- Bent, twisted, or deformed chain links or components.
- Evidence of heat damage or weld splatter.
- Excessive pitting or corrosion.
- Lack of ability of chain or components to hinge (articulate) freely.
- Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

Section 34: Excavation and Trenching Program

GENERAL REQUIREMENTS

- All trenches and other excavations five (5) feet or more in depth are required to be shored, sloped or otherwise protected from the hazards of moving ground.
- All trenches and other excavations four (4) feet or more require a ladder in the excavation at all times when workers are in the trench.
- Never enter or work in any trench or excavation that is not properly shored, sloped, shielded or otherwise protected from cave-in.
- Use only ladders or other approved means of egress or access to trenches and other excavations. Keep ladders in the excavation or trench whenever a worker is in the excavation. Ladders must never be more than 25 feet away from any worker in an excavation or trench.
- When working in trenches, always stay away from the excavating equipment and remain within the shoring or protective system in place.
- Use only safe crossings for crossing open trenches. Never jump over an open trench.
- The spoil pile must be kept at least two (2) feet away from the edge of a trench or excavation, and heavy equipment should be kept as far away as possible.
- Trenches and excavations may only be entered after the competent person has conducted an inspection and authorized entry.
- Excavations must be checked daily for cracks, slides, scaling, and any signs of potential failure or deterioration. During rain, snow, and other hazardous weather conditions, checks should be performed more often.

Section 35: Electrical Safety

Great Falls Construction shall comply with applicable OSHA standards concerning employee protection from electrical hazards as published in 29 CFR 1926 Subpart K, through the use of Ground Fault Circuit Interrupters (GFCI). When conditions prevent the use of GFCI either by work practice or contract requirements, the following Assured Grounding Program shall be substituted.

ELECTRICAL SAFETY AND AWARENESS TRAINING

- Employees shall be trained in and familiar with the safety-related work practices that pertain to their respective job assignments.
- Safety-related work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts. The specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards when work is performed near or on equipment or circuits which are or may be energized.
- Live parts to which an employee may be exposed shall be de-energized before the employee works on or near them. The only exception would be if the employer can demonstrate that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations.
- Only qualified persons may work on electric circuit parts or equipment that have not been de-energized. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.
 1. A Qualified Person is one who has received training in and has demonstrated skills and knowledge in the construction and operation of electric equipment and installations and the hazards involved.
 2. Employees may not enter spaces containing exposed energized parts, unless illumination is provided that enables the employees to perform the work safely. Where lack of illumination or an obstruction precludes observation of the work to be performed, employees may not perform tasks near exposed energized parts. Employees may not reach blindly into areas which may contain energized parts.
 3. Conductive articles of jewelry and clothing may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.
- When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in the Table below. Great Falls Construction does not have employees qualified to work on or in the vicinity of overhead lines.

TABLE S5 - Voltage range (phase to phase) and Minimum approach distance

300 V and less	Avoid Contact
Over 300 V, not over 750 V	1 ft. 0 in. (30.5 cm)
Over 750 V, not over 2k V	1 ft. 6 in. (46 cm)
Over 2 kV, not over 15 kV	2 ft. 0 in. (61 cm)
Over 15 kV, not over 37 kV	3 ft. 0 in. (91 cm)

Over 37 kV, not over 87.5 kV 3 ft. 6 in. (107 cm)
Over 87.5 kV, not over 121 kV 4 ft. 0 in. (122 cm)
Over 121 kV, not over 140 kV4 ft. 6 in. (137 cm)

Section 36: Subcontractor Safety Requirements

All subcontractors are responsible for developing, implementing and following their own safety, environmental, and health policies and procedures. In addition, we have following expectations and requirements:

- Each subcontractor will comply with all local, state, federal and site safety requirements and regulations.
- Accident prevention on the job can only be successful with the cooperation of our subcontractors.
- Subcontractors are required to submit a company safety program for review upon request.
- All subcontractors shall comply with all details of applicable OSHA standards and with the Great Falls Construction Health and Safety Plan.
- Each subcontractor must provide their own first aid supplies and have them readily available to their employees.
- It is the responsibility of the Project Supervisor to manage the provisions of this Health and Safety Plan with all Subcontractor employees, working through the subcontractor's on-site supervisor.
- Subcontractors must conduct periodic safety reviews of their work area. Any identified deficiencies must be corrected in a timely manner.
- In all cases, subcontractors must report injuries and property damage and provide a copy of their Incident Investigation Report to the Project Supervisor.

Section 37: Safety Inspections

We expect our crews to continually assess their work area and maintain the project in generally good condition.

Supervisors are expected to correct hazards as identified and to communicate concerns and required safety measures to their crew and applicable subcontractors.

The Safety Manager will perform bi-weekly site visits and email all findings to the HR Department, Operations and Project Supervisors.

Section 38: Flammable Liquids and Compressed Gas

FLAMMABLE LIQUIDS

Gasoline and other flammable liquids shall be handled and stored in metal containers that meet OSHA standards (safety gasoline cans) and labeled to indicate content.

- All flammable liquids must be stored in an appropriate approved safety can.
- All flammable liquids are to be stored only in approved closed metal containers labeled FLAMMABLE.
- Keep flammable waste materials picked up and discarded regularly (daily).
- Know the location and proper use of fire extinguishers and use only for fire-fighting. Fire extinguishers must be serviced after use.
- Use proper precautions when transferring fuel or refueling equipment. Stop motors, provide for grounding and bonding, do not smoke or allow open flame or any other source of ignition in the area, close containers and eliminate any spillage.
- Oxygen and acetylene cylinders are to be secured upright, stored separately (at least 20 feet apart) and not near other combustible materials, particularly oil and grease.
- Never weld, burn, or cut any containers that have held flammable liquids unless they are filled with water or are completely cleaned, ventilated and tested.
- Never use gasoline for cleaning purposes. Use only approved cleaning solvents, in well-ventilated areas.

COMPRESSED GAS CYLINDERS

- All compressed gas cylinders will be legibly marked so as to clearly identify its contents.
- Compressed gas cylinders will be stored in areas which will protect them from heat sources such as flame impingement, intense radiant heat, electric arcs, or sources of high temperature.
- Cylinders will be stored in a location which will protect them from falling or passing objects or tampering and shall be kept in an upright position and tied off.
- Protective valve caps will be placed on all cylinders when they are not in use or connected for use.
- All valves shall be closed off before a cylinder is moved, when emptied, or at the completion of any job.

Section 39: Silica Exposure Control Program

PURPOSE

This **Silica Exposure Control Program** was developed to prevent employee and subcontracted worker exposure to hazardous levels of respirable crystalline silica through construction activities or nearby construction activities occurring on worksites. Respirable crystalline silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease (COPD), and kidney disease.

This plan is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing crystalline silica can lead to the release of respirable-sized particles of crystalline silica (i.e. Respirable Crystalline Silica). Crystalline silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of crystalline silica. Many materials found on construction sites contain Crystalline Silica; including but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others.

Consequently, this program has been developed to address and control these potential exposures to prevent our employees and subcontracted workers from experiencing the effects of occupational illnesses related to respirable crystalline silica exposure.

SCOPE

This Silica Exposure Control Program applies to all employees who have the potential to be exposed to respirable crystalline silica when covered by the OSHA Standard.

The OSHA Standard applies to all occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air (25 $\mu\text{g}/\text{m}^3$) as an 8-hour time weighted average (TWA) under any foreseeable conditions.

RESPONSIBILITIES

Great Falls Construction firmly believes in protecting the health and safety of our employees. This responsibility begins with management providing the necessary support to properly implement this program. However, the effectiveness of this Program also depends on the efforts of employees and subcontracted workers to follow rules and requirements.

Management:

- Implement the **Site Specific Silica Exposure Control Plan** for the project, and select the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard - Table 1. The Site Specific Silica Exposure Control Plan may also include; exposure monitoring, hazard communication and safety data sheet (SDS) training, medical surveillance, housekeeping and other topics.

NOTE: OSHA's Construction Standard Table 1 is a list of 18 common construction tasks along with acceptable exposure control methods and work practices that limit exposure for those tasks.

- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Silica Exposure Control Program are in place and readily available if needed.
- (For activities not included on Table 1). Conduct job site assessments for silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an employee's exposure will be above 25 $\mu\text{g}/\text{m}^3$ as an 8-hour TWA under any foreseeable conditions.
- Ensure that project supervisors, competent persons, and employees are educated in the hazards of silica exposure and trained to work safely with silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard. Project supervisors and competent persons may receive more advanced training than other employees.
- Maintain written records of training. Examples include: the proper use of respirators, Site Specific Exposure Control Plans, inspections for equipment, PPE, and work methods/practices, medical surveillance, medical clearances, and fit test results.
- Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project Site Specific Exposure Control Plans that extend beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.
- Coordinate work with other employers and contractors to ensure a safe work environment relative to silica exposure.

Project Supervisor:

- Ensure all applicable elements of this Silica Exposure Control Plan are implemented on the project including the selection of a competent person (this may be the project supervisor).
- Assist in conducting job site assessments for silica containing materials and perform hazard assessments in order to determine if Table 1 addresses silica hazards, or if exposure monitoring and medical surveillance is necessary.
- Assist in the selection and implementation of the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Site Specific Silica Exposure Control Plan, exposure monitoring, Hazard Communication (HAZCOM) training, medical surveillance, housekeeping and other items.
- Ensure that if respirators are used, that employees have been properly trained, medically cleared, and fit-tested in accordance with OSHA standards for respirator use. This process will be documented.
- Ensure work is conducted in a manner that minimizes and adequately controls the risk to workers and others. This includes ensuring workers use appropriate engineering controls, work practices, and wear the necessary PPE.
- Where there is risk of exposure to silica dust, verify employees are properly trained on the applicable contents of this program, the Site Specific Silica Exposure Control Plan, and applicable OSHA Standards. Ensure employees are provided appropriate PPE when

conducting such work.

Competent Person (Site Supervisor):

- Make frequent and regular inspections of job sites, materials, and equipment to implement the written Site Specific Silica Exposure Control Plan.
- Identify existing and foreseeable respirable crystalline silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.
- Notify management of any deficiencies identified during inspections in order to coordinate and facilitate prompt corrective action.
- Assist in conducting job site assessments for silica containing materials and perform employee respirable crystalline silica hazard assessments in order to determine if exposure monitoring, and medical surveillance is necessary.

Employees:

- Follow recognized work procedures (such as the Construction Tasks identified in OSHA’s Construction Standard - Table 1) and any procedures established in the Site Specific Exposure Control Plan and this program.
- Use the assigned PPE in an effective and safe manner.
- Participate in respirable crystalline silica exposure monitoring and the medical surveillance program if it becomes necessary.
- Report any unsafe conditions or acts to the project supervisor and/or competent person.
- Report any exposure incidents or any signs or symptoms of silica illnesses.

DEFINITIONS

If a definition is not listed in this section, please contact your project supervisor.

Action Level means a concentration of airborne respirable crystalline silica of 25 µg/m³, calculated as an 8-hour TWA.

Competent Person means an individual who is capable of identifying existing and foreseeable respirable crystalline silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.

Employee Exposure means the exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.

High-Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter.

Objective Data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

Permissible Exposure Limit (PEL) means the employer shall ensure that no employee is exposed to an airborne concentration of respirable crystalline silica in excess of 50 µg/m³, calculated as an 8-hour TWA.

Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the Medical Surveillance Section of the OSHA Respirable Crystalline Silica Standard.

Respirable Crystalline Silica means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.

Specialist means an American Board Certified Specialist in Pulmonary Disease or an American Board Certified Specialist in Occupational Medicine.

REQUIREMENTS

Specified Exposure Control Methods

When possible and applicable, Great Falls Construction will conduct activities with potential silica exposure to be consistent with OSHA’s Construction Standard - Table 1. Note: It is anticipated that all work performed by Great Falls Construction will fall under the activities listed on Table 1.

Project supervisors will ensure each employee and subcontracted worker under their supervision and engaged in a task identified on OSHA’s Construction Standard - Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task on Table 1.

Note: If a task/activity being performed is not included on Table 1, then the potential silica exposure will be assessed in accordance with the Alternative Exposure Control Methods section of this program.

Table 1: Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	<ul style="list-style-type: none"> Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency. 	None	None
4a	Walk-behind saws when used outdoors	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
5	Drivable saws for tasks performed outdoors only	<ul style="list-style-type: none"> Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
6	Rig-mounted core saws or drills	<ul style="list-style-type: none"> Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	<ul style="list-style-type: none"> Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes. 	None	None
8	Dowel drilling rigs for concrete for tasks	<ul style="list-style-type: none"> Use shroud around drill bit with a dust collection system. 	N95 (or Greater)	N95 (or Greater)

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	performed outdoors only	<ul style="list-style-type: none"> Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes. 	Efficiency) Filtering Facepiece or Half Mask	Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	<ul style="list-style-type: none"> Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. 	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	<ul style="list-style-type: none"> Operate from within an enclosed cab and use water for dust suppression on drill bit. 	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	<ul style="list-style-type: none"> Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10c	Jackhammers and handheld powered chipping tools when used outdoors	<ul style="list-style-type: none"> Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10d	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
11	Handheld grinders for mortar removal (i.e., tuckpointing)	<ul style="list-style-type: none"> Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	<ul style="list-style-type: none"> Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
12b	Handheld grinders for uses other than mortar removal when used outdoors	<ul style="list-style-type: none"> Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	<ul style="list-style-type: none"> Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. 	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
13a	Walk-behind milling machines and floor grinders	<ul style="list-style-type: none"> Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. 	None	None
13b	Walk-behind milling machines and floor grinders	<ul style="list-style-type: none"> Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes. 	None	None
14	Small drivable milling machines (less than half-lane)	<ul style="list-style-type: none"> Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions. 	None	None
15a	Large drivable milling machines (half-lane and larger) for cuts of	<ul style="list-style-type: none"> Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to 	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	any depth on asphalt only	<ul style="list-style-type: none"> suppress dust. Operate and maintain machine to minimize dust emissions. 		
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	<ul style="list-style-type: none"> Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. 	None	None
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	<ul style="list-style-type: none"> Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions. 	None	None
16	Crushing machines	<ul style="list-style-type: none"> Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station. 	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<ul style="list-style-type: none"> Operate equipment from within an enclosed cab. 	None	None
17b	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	<ul style="list-style-type: none"> When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions. 	None	None
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing	<ul style="list-style-type: none"> Apply water and/or dust suppressants as necessary to minimize dust emissions. 	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	silica-containing materials			
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	<ul style="list-style-type: none"> When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab. 	None	None

When implementing the control measures specified in Table 1, Great Falls Construction shall:

- For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
- For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;
- Where an employee performs more than one task included on OSHA’s Construction Standard Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

Alternative Exposure Control Methods

Alternative Exposure Control Methods apply for tasks not listed in OSHA’s Construction Standard - Table 1, or where Great Falls Construction cannot not fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1.

First, Great Falls Construction will assess the exposure of each employee who is or may reasonably be expected to be exposed to respirable crystalline silica at or above the Action Level in accordance with either the Performance Option or the Scheduled Monitoring Option.

- **Performance Option** – The 8-hour TWA exposure for each employee will be assessed on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to respirable crystalline silica.
- **Scheduled Monitoring Option** – Initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, and in each work area will be performed. Where several employees perform the same tasks on the same shift and in the same work area, a representative fraction of these employees will be sampled. When using representative monitoring, the employee(s) who are expected to have the highest exposure to respirable crystalline silica will be sampled.
 - If initial monitoring indicates employee exposures are below the Action Level, monitoring

for those employees whose exposures are represented by such monitoring will be discontinued.

- Where the most recent exposure monitoring indicates employee exposures are at or above the Action Level but at or below the PEL, such monitoring will be repeated within six months of the most recent monitoring.
- Where the most recent exposure monitoring indicates employee exposures are above the PEL, such monitoring will be repeated within three months of the most recent monitoring.
- Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the Action Level, such monitoring will be repeated within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the Action Level. At this time, monitoring for those employees whose exposures are represented by such monitoring, will be discontinued, except when a reassessment is required. It is necessary to reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the Action Level, or when there is any reason to believe new or additional exposures at or above the Action Level have occurred.

Great Falls Construction will ensure that all respirable crystalline silica samples taken to satisfy the monitoring requirements of this program and OSHA are collected by a qualified individual and the samples are evaluated by a qualified laboratory.

Within five working days after completing an exposure assessment, each affected employee will be notified in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

Whenever an exposure assessment indicates an employee exposure is above the PEL, the corrective action being taken to reduce employee exposure to or below the PEL will be described in the written notification.

Where air monitoring is performed, affected employees or their designated representatives will have an opportunity to observe any monitoring of employee exposure to respirable crystalline silica. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, protective clothing and equipment will be provided for the observer at no cost and shall ensure the observer uses such protective clothing and equipment.

Once air monitoring has been performed, the best method of compliance will be determined based on the monitoring data and the hierarchy of controls. Great Falls Construction will use engineering and work practice controls to reduce and maintain employee exposure to respirable crystalline silica to or below the PEL, unless it can demonstrate that such controls are not feasible.

Wherever such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, such controls will be used nonetheless to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

Control Methods

Great Falls Construction will provide control methods that are either consistent with Table 1 or otherwise minimize worker exposure to Silica. These exposure control methods can include

engineering controls, work practices, and respiratory protection. Listed below are control methods to be used when Table 1 is not followed:

Respiratory Protection

Where respiratory protection is required by this program, each employee will be provided an appropriate respirator that complies with the requirements of the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Respiratory protection is required where specified by the OSHA Construction Standard - Table 1, for tasks not listed in Table 1, or where the company has not fully and properly implemented the engineering controls, work practices, and respiratory protection described in Table 1.

Situations requiring respiratory protection include:

- Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls;
- Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering and work practice controls are not feasible; and
- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Housekeeping

Dry sweeping or dry brushing is not allowed where such activity could contribute to employee exposure to respirable crystalline silica; unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

Compressed air will not be used to clean clothing or surfaces where such activity could contribute to employee exposure to respirable crystalline silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

Written Exposure Control Plan

When employee exposure on a construction project is expected to be at or above the Action Level, a written Site Specific Silica Exposure Control Plan will be established and implemented.

This Site Specific Plan will contain at least the following elements:

- A description of the tasks in the workplace that involve exposure to respirable crystalline silica;
- A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to respirable crystalline silica for each task;
- A description of the housekeeping measures used to limit employee exposure to respirable crystalline silica; and
- A description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to respirable crystalline silica and their level of exposure, including exposures generated by other workers.

The written Site Specific Silica Exposure Control Plan will designate a competent person to make frequent and regular inspections of job sites, materials, and equipment to ensure the plan is implemented.

The written Site Specific Silica Exposure Control Plan will be readily available for examination upon request by employees covered by this program, their designated representative or OSHA.

Medical Surveillance

Medical surveillance will be made available for each employee who will be required to use a respirator for 30 or more days per year due to their respirable crystalline silica exposure. Medical surveillance (i.e. medical examinations and procedures) will be performed by a PLHCP and provided at no cost to the employee at a reasonable time and place.

Note: At this time, it is not anticipated that any Great Falls Construction employees will be required to use a respirator for 30 or more days per year due to respirable crystalline silica exposure. If this situation were to change, this Plan will be revised and updated to address this change.

Hazard Communication

Crystalline silica will be included in the company's Hazard Communication (HAZCOM) Program established to comply with the OSHA Hazard Communication Standard (29 CFR 1926.59 and 29 CFR 1910.1200).

Each employee has access to the Safety Data Sheet (SDS) for crystalline silica.

All employees will be trained in accordance with the provisions of the OSHA Hazard Communication Standard. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects.

Each employee with the potential to be exposed at or above the Action Level for respirable crystalline silica will be able to demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to respirable crystalline silica;
- Specific tasks in the workplace that could result in exposure to respirable crystalline silica;
- Specific measures implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and respirators to be used;
- The contents of the OSHA Respirable Crystalline Silica Construction Standard;
- The identity of the competent person designated at the project; and
- The purpose and a description of the company's Medical Surveillance Program.

If an employee requests a copy of the OSHA Respirable Crystalline Silica Construction Standard, it will be made available at no cost.

Recordkeeping

If *Air Monitoring* is performed on activities not covered on Table 1, Great Falls Construction will make and maintain an accurate record of all exposure measurements taken to assess employee exposure to respirable crystalline silica. Exposure records are maintained and made available in accordance with 29 CFR 1910.1020. Exposure records will be kept for at least 30 years.

The employer shall make and maintain an accurate record of all *Objective Data* relied upon to comply with the requirements of the OSHA Respirable Crystalline Silica Construction Standard.

Records of objective data are maintained and made available in accordance with 29 CFR 1910.1020. Objective data records will be kept for at least 30 years.

Records for each employee enrolled in the *Medical Surveillance Program* will be maintained and accurate. Medical records are maintained and made available in accordance with 29 CFR 1910.1020. Medical records will be kept under lock and key for at least the duration of employment plus 30 years. It is necessary to keep these records for extended periods because silica related diseases such as cancer often cannot be detected until several decades after exposure. However, if an employee works for an employer for less than one year, the employer does not have to keep the medical records after employment ends, as long as the employer gives those records to the employee.

PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis, unless changes to operations, the OSHA Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153), or another applicable OSHA Standard require an immediate revision or update of this program.

Site Specific Silica Exposure Control Plan

Company: _____ Date: _____

Person Completing the Plan, Title: _____

Competent Person: _____

Job / Project Location: _____

Description of Task(s):

Engineering Controls (See list below):

Engineering controls must be used at all times. Examples: Wet methods, continuous water feed, local exhaust ventilation with HEPA filters, commercially available shrouds, commercial dust collection system, enclosed cab with fresh climate controlled air to operator, employees outside of cabs applying water/dust suppressants, equipment maintained to minimize dust emissions.

Any deviation from Table 1 - air monitoring is required.

Work Practices:

Maintain equipment functionality: Clean/spare filters, good connections, hoses with no holes, kinks, permanent bends, or crushed sections, power source available, water source available, ensure ventilation is ≥ 25 cfm/inch of wheel diameter, water/exhaust ventilation lines safe from damage, shrouds fit correctly and are not damaged, follow manufacturer instructions.

Respiratory Protection:

Housekeeping:

Dust containing silica on work surfaces/equipment must be cleaned by using wet methods or HEPA equipped vacuum. Compressed air or dry sweeping may not be used.

Optional Items:

Procedures Used to Restrict Access to the Work Area:

Objective Data Used: Yes / No

If yes, Data Source: _____

Data conditions (equipment, process, controls, material, silica concentrations, environmental) from the source match the work conditions? Yes / No

NOTE: Review this plan with your crew at the jobsite. If conditions change, update plan and review all changes with the employees impacted by the change.

Employee Name (Printed)	Signature	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments:

Section 40: Employee Acknowledgement Form

Health & Safety Agreement

I have received a copy of the Great Falls Construction Health & Safety Program. I agree to abide by the company's policies relative to safety and vehicle usage. I understand that any violation of company policies may result in disciplinary action up to and including termination.

Employee's Name (Printed): _____

Employee Signature

Date

Please email, deliver or mail this page to:

Great Fall Construction, Inc.
20 Mechanic Street
Gorham, ME 04038

Email: info@greatfallsinc.com