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HEALTH AND SAFETY PROGRAM

FOR ALL EMPLOYEES, SUB-CONTRACTORS AND SITE VISITORS

SECOND EDITION

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PRESIDENTS FORWARD- HEALTH AND SAFETY POLICY

It is our policy to execute all of our work in a safe and productive manner in accordance with the Occupational Health and Safety Act and the Regulations made under the Act. We are committed to protecting the health and safety of everyone who works on our projects.

Our objectives are simple: zero accidents; zero lost time; carefully planned work; well-trained personnel; and a positive, productive and safe working environment.

To achieve this objective, we will maintain and enforce a thorough and straightforward health and safety program in cooperation with all of our subcontractors. As with most aspects of our projects, our subcontractors' assistance and support are needed and expected.

Our Health & Safety Program is provided herein, and is available on all of our project sites as well as our web site. We encourage all of our fellow contractors, subcontractors, suppliers, consultants and clients to develop and implement their own policies and programs, specific to their respective disciplines, to complement ours, which is intended to address typical general construction activities rather than specialist trade work.

In order to be effective, active participation in site safety is mandatory and applicable to all parties that work on our project sites. We will issue a copy of this Program to all of our subcontractors at the beginning of each project and will require that the Acknowledgement Form in Appendix 1 be completed and returned to our office along with other mandatory contract documents.

We expect all of our subcontractors to ensure that their employees have the training they require and are familiar with our Health & Safety Program and site rules. The Acknowledgement Form in Appendix 1 requires a list of all subcontractor's employee's currently valid training records (trade certificates and training certificates for First Aid, Working at Heights, WHMIS etc.).

In order to help ensure that all workers on site are familiar with and adhere to our Health & Safety Program, we will review the program with workers directly on site on a continuing, as-needed basis.

We thank all of our subcontractors in advance for their cooperation and welcome feedback on any aspect of our policy and program

Sincerely,

Dale Coleman, President

HEALTH AND SAFETY PROGRAM

President/Management Responsibility

- ◇ Prepare a written company H&S policy and review annually. Make adjustments as health and safety regulations evolve.
- ◇ Assign the development of a program to implement the H&S policy and review annually.
- ◇ Provide the necessary resources to implement, support, and enforce the company H&S policy and program in accordance with the *Occupational Health and Safety Act* and the regulations made under the Act.
- ◇ Meet all legal requirements for investigating and reporting critical injuries, accidents, incidents, occurrences, and other events.
- ◇ Ensure all superintendents and supervisors are competent and properly trained in all areas they oversee on site.
- ◇ Ensure all superintendents and supervisors are trained in Emergency First Aid and CPR.
- ◇ Conduct an annual H&S review with project managers and superintendents.
- ◇ Take every precaution available to ensure the safety of workers on site
- ◇ Comply with all requirements under sections 25 through 27 of the Occupational Health and Safety Act.

Project Manager/Superintendent Responsibility

- ◇ Implement, support, and enforce the H&S program at the project level.
- ◇ Communicate with the President on Ministry of Labour requirements such as Notice of Project and Notices of Accidents and Injuries.
- ◇ Review the site H&S program with supervisors and subcontractors before they start work, identifying responsibilities and promoting cooperation.
- ◇ Provide orientation for new workers on site.
- ◇ Ensure all workers receive, at a minimum, training in Working at Heights and WHMIS.
- ◇ Ensure all workers needing more specific training receive it.
- ◇ Make a wide range of health and safety information available to all employees.
- ◇ Oversee site planning and approve a site plan that covers access, traffic control, materials handling, storage, and sanitation.
- ◇ Prepare fire protection and emergency response plans.
- ◇ Review safe work procedures for the site.
- ◇ Direct accident investigations on site, prepare reports as required.
- ◇ Ensure that site security and public way protection are provided.
- ◇ Identify special site hazards and outline appropriate safe work procedures and training.
- ◇ Establish an on-site system for maintaining and processing injury reports, Ministry of Labour orders, WHMIS, inspection reports, and other administrative requirements.
- ◇ Coordinate H&S functions (for example, safe work procedures and accident investigations) involving owner/client, subcontractors, and direct-hire personnel.
- ◇ Perform site inspections at least weekly.
- ◇ Take every precaution available to ensure the safety of workers on site
- ◇ Comply with all requirements under section 27 of the Occupational Health and Safety Act.

Supervisors/Foreman's Responsibility

- ◇ Provide orientation for new workers.
- ◇ Take every precaution available to ensure the safety of workers on site
- ◇ Implement, support, and enforce the H&S program at crew level.
- ◇ Review H&S aspects of each task with crew.
- ◇ Support H&S Representative, particularly with any items from weekly inspection reports that require supervisory attention to address.
- ◇ Assist in accident investigations.
- ◇ Report H&S problems to superintendent and correct hazards immediately where possible.
- ◇ Inspect tools and equipment, including H&S equipment, regularly and ensure proper maintenance.
- ◇ Ensure that housekeeping is done at least daily.
- ◇ Review MSDS' with crew before using hazardous materials.
- ◇ Review specific tasks with workers who have never performed the task in question to highlight possible hazards or dangers that may arise.
- ◇ Have regular "tailgate" meetings to answer any questions especially from new employees regarding occupational health and safety.
- ◇ Comply with all requirements under section 27 of the Occupational Health and Safety Act.

Health and Safety Representative Responsibility

A Health and Safety Representative is required when the number of workers exceeds 5 and where no Joint Health and Safety Committee (JHSC) is required.

- ◇ A H&S Representative must be elected by the workers.
- ◇ Inspect work areas regularly to identify any hazards; complete weekly inspection checklist and maintain file on site.
- ◇ Report hazards or concerns immediately and make written recommendations as required to supervisor or superintendent.
- ◇ Follow up reported hazards or concerns within 24 hours to make sure they have been dealt with in a timely fashion.
- ◇ Attend and participate in H&S meetings on site.
- ◇ Help in reviewing and implementing the H&S program for the project.
- ◇ Assist in accident investigation.

Joint Health and Safety Committee Responsibility

A JHSC is required when there are twenty or more workers regularly employed on a project and the project is expected to last more than three months. On projects employing more than fifty workers and lasting more than three months, at least one management member and one worker member of the JHSC must be certified by the Workplace Safety and Insurance Board (WSIB).

- ◇ Meet once every two weeks or as otherwise agreed.
- ◇ Make written recommendations on H&S matters or concerns to the superintendent or supervisor.
- ◇ Follow up on recommendations to ensure they are acted upon.
- ◇ Assist in reviewing the site H&S program.
- ◇ Help to implement and maintain the site H&S program.
- ◇ Review inspection and accident reports.
- ◇ Review reports from the worker trades committee.
- ◇ May assist in arbitrating enforcement issues.
- ◇ Periodically review JHSC membership to ensure that it fairly represents the workforce on site.
- ◇ Conduct a monthly inspection of the workplace.

Sub-Contractor Responsibility

- ◇ All subcontractors must have their own “in-house” H&S program specific to their trade.
- ◇ Before starting work, ensure that subcontractor’s H&S program complies with Coleman Construction’s H&S program.
- ◇ Make it clear to subcontractors’ employees that failure to comply with H&S program can result in termination of contract.
- ◇ All subcontractors with more than five employees regularly on site are to elect a H&S representative for their company who will represent their specific company at regular H&S meetings.
- ◇ Provide training in the requirements of the H&S program.
- ◇ Coordinate all activities through the site superintendent.
- ◇ Take every precaution available to ensure the safety of workers on site
- ◇ Provide, inspect, and maintain personal protective equipment (PPE) as required for direct-hire employees.
- ◇ Monitor site conditions daily.
- ◇ Record—and report where required as an employer—all injuries, accidents, and near misses.
- ◇ Clean up work areas at least daily. Note: If waste and debris is not cleaned up in a reasonable time, it will be cleaned up by Coleman Construction at the subcontractor’s expense.
- ◇ Conduct regular safety talks for employees.
- ◇ Provide compensation and time necessary to employees who act as H&S representatives.
- ◇ Provide adequate facilities (tool storage, first aid, etc.) for employees.
- ◇ Notify site superintendent of any lost-time injuries, medical aid cases, and reportable occurrences on the project.
- ◇ Cooperate in accident investigation and reporting.
- ◇ Comply with all requirements under sections 25 through 28 of the Occupational Health and Safety Act.

Employee Responsibility

- ◇ Work in accordance with the H&S Program, the site rules, the Occupational Health and Safety Act and the regulations made under the Act.
- ◇ Have correct personal protective equipment (PPE) before commencing work and report any defects or damage to their supervisor, where necessary.

- ◇ Report hazards or unsafe conditions to their supervisor.
- ◇ Report all accidents, injuries, and near misses to their supervisor. Follow emergency response plans when necessary.
- ◇ Clean up own work areas at least daily.
- ◇ Comply with all requirements under section 28 of the Occupational Health and Safety Act.

SITE POLICY

Personal Protective Equipment (PPE)

All personnel on any Coleman Construction site will be wearing Grade 1 foot and toe protection (CSA Approved) against impact and puncture.

All personnel on any Coleman Construction site will have a well-fitting hard hat, free of defects to the shell and suspension apparatus.

All personnel on any Coleman Construction will wear high visibility clothing including but not limited to 5 point tear away vests.

All personnel on any Coleman Construction site will wear CSA approved safety glasses when any hazards are present.

Loose, baggy clothing is not permitted. Neck chains must be worn under a shirt. Long hair must be tied or confined. All of these requirements minimize the risk of any entanglement with the moving parts of equipment. Shirts and pants must be worn at all times.

All personnel will use job specific personnel protective equipment. Fall protection equipment that is free of defect will be used when working on any elevated platform or around large or flowing bodies of water. Proper personal barriers will be used for hot or cold work. Ear protection is to be used in loud, confined spaces, around large pieces of equipment like diesel packers, when stationed around heavy equipment or at that person's discretion.

Failure to wear Personal Protective Equipment can result in injury or worse, loss of life.

Put it on.

Site Policy

Drug and Alcohol Policy

There is a zero-tolerance attitude towards drugs and alcohol on all Coleman Construction sites. Any person found to be under the influence of drugs or alcohol will immediately be removed from site and not readmitted to site. Any person found to be in possession of drugs, alcohol or related paraphernalia while on site will immediately be removed from site and not readmitted to site. Being under the influence of drugs or alcohol reduces good judgement, putting all those on site at unnecessary risk for harm.

All contractors, visitors, vendors, consultants or other individuals must comply with this policy.

The use of prescribed drugs is permitted, as long as the site superintendent is notified and will not impair that person's ability to complete their job safely and effectively.

There will be no exceptions to this.

Site Policy

Workplace Violence and Harassment Policy

Coleman Construction is committed to providing a safe work environment in which all workers are treated with respect. We will take the necessary steps to protect all personnel on site from workplace violence and harassment.

Workplace harassment is defined as a comment or course of action against a worker that is known or should be known to be unwelcome and may include bullying, teasing, intimidating or offensive jokes or innuendos, and displaying or circulating offensive pictures or materials.

Workplace harassment may also relate to a form of discrimination as set out in the Ontario Human Rights Code.

Workplace violence is defined as the exercise of, or attempt to exercise, physical force by a person against a worker that causes or could cause physical injury to the worker; or a statement or behavior that is reasonable for a worker to interpret as a threat to exercise physical force against the worker.

Harassment or violence as defined above are unacceptable and will not be tolerated in any form.

As such, all of our employees and personnel on site are encouraged to raise any concerns and to report any incidents of workplace violence or harassment they observe or have knowledge of to the proper authority.

Coleman Construction will investigate and deal with all reported incidents and complaints in a timely and fair manner, respecting the privacy of all parties concerned to the extent possible.

Site Policy

Emergency Response Plan

In the event of an emergency, the following procedure is to be followed:

Seek first aid treatment immediately, if possible. If this is not possible, make it known you have been disabled and require assistance, if possible.

If you hear or observe an emergency, stop what you are doing and call for help from another person onsite and go to the emergency. Second at the scene is to notify the site superintendent and health and safety representative immediately.

Assess if it is safe for you to aid the injured person. If the emergency poses no threat to you, aid the injured. If your safety is threatened, or the safety of the injured, correct the issue, if possible, and aid the injured.

Perform first aid, or retrieve someone who is capable of performing first aid.

The second person at the scene will contact 911 if necessary and is to have access cleared for emergency responders, i.e. an ambulance. They will direct the ambulance to the scene of the accident.

Continue first aid until emergency responders arrive on the scene and take control of the accident. If emergency response is not available, the site superintendent or supervisor will provide transportation to the closest hospital.

Provide every concession you can to emergency responders until you can longer be of assistance.

The accident is to be reported to the main office so next of kin can be contacted and made aware of the situation.

In the event of a fire, notify the superintendent immediately. The superintendent will inform designated people in that area so the area can be cleared. If the fire cannot be extinguished in 30 seconds, 911 will be called. In this event all personnel onsite are to meet at the "muster site" or assembly point and roll call of all personnel will be taken.

Each situation will be different every time and there is no preparing for a major accident. Calm and critical thinking can make all the difference in the wake of an emergency.

Site Policy

Accident Reporting and investigation Policy (see Annex 3 for accident report form)

The intent of this health and safety program is to reduce, if not eliminate all work related accidents on the job site. However attainable that goal, near miss incidents and accidents can still occur. No matter the severity of the accident, it must be reported to the superintendent. The superintendent along with health and safety staff will initiate an investigation of all:

- Critical Injuries
- Lost-time Injuries
- Medical Aid Injuries
- Occupational Illnesses
- Near Misses
- Any worker fall arrested by a safety belt or harness
- Damage Exceeding \$5000.00

The superintendent will ensure that any accidents or incidents requiring investigation are reported immediately to the President and the H&S Representative. The superintendent will conduct an accident investigation and prepare a written report for any accidents requiring investigation. This report and its conclusions will be kept on record and will be given to both the President/Employer as well as site supervisors who will relay the findings to the workers in order to avoid such accidents in the future.

All actions taken to rectify the findings of the investigation will be documented and given to the President/Employer of the company.

Employers must report a work related accident to the Workplace Safety and Insurance Board within 72h of the accident occurring (WSIB Form 7). If the employee cannot continue to work, they are to report to a physician to obtain a Functional Abilities Form (WSIB Form 8). Once the employer has received a signed form 8 from the employee, a modified duties schedule will be developed.

In the event of a fatal or critical injury, the supervisor will immediately notify the Ministry of Labour after the accident scene has been secured. The scene will not be disturbed until express permission has been granted from the Ministry of Labour. Under the act, a critical injury is one that:

- Places life in jeopardy
- Produces unconsciousness
- Results in substantial loss of blood
- Involves the fracture of a leg or arm, but not a finger or toe
- Involves the amputation of a leg, arm, hand or foot, but not a finger or toe
- Consists of burns to a major part of the body
- Causes the loss of sight in an eye

Site Policy

Smoking on site

Smoking on site will only be permitted in designated areas. Smoking near flammable materials like lumber, propellants or materials that are readily combustible is strictly prohibited.

Those found in violation of smoking while not in a designated area will be subject to disciplinary action which includes:

- Verbal warning
- Written Warning
- Expulsion from the site

Once expelled from the site, access will not be granted to return for a period of 1 week after which time, the next offence will result in expulsion with no possibility of returning to site.

Company Policy

General Site/Sign in Information (See Annex 8 for Sign in sheet)

Each work site is unique and each sites information is managed on a per site basis.

Access will be coordinated by the superintendent or project manager in accordance with the contract documents.

The superintendent of the site will inform all personnel, including employees and sub-contractors of any site specific hazards. Safe practices for working on a site with specific hazards will be clearly delivered to all personnel on site before work can commence.

If, while working on any Coleman Construction site, you observe any hazards, immediately contact the superintendent. It is imperative that site hazards are reported to the proper authority so the hazard can be eliminated and safe work can continue.

A sign in system for all employees, sub-contractors, vendors, consultants and visitors is in place on all Coleman Construction sites. It the responsibility of all personnel arriving to and working on a Coleman Construction to sign in at the main office.

Site Policy

Mandatory Compliance

All personnel on any Coleman Construction site shall comply with the safe working procedures outlined in the manual, the requirements of the Occupational Health and Safety Act (OHSA) and the instructions of the site superintendent.

Non-compliance by any personnel will generally be addressed as follows:

Minor Non-Compliance (Non-compliance does not have the potential to cause damage or injury)

1st occurrence: A verbal warning or instruction will be given to that person.

2nd occurrence: A written notice or warning will be issued to that person and their employer.

3rd occurrence: That person will be expelled from site immediately.

Major Non-Compliance (Non-compliance that has the potential to cause injury or damage)

That person will be removed from site immediately, a written notice will be issued to that person and their employer and that person will not be allowed to return to the job site.

Site Policy

Required Safety Training

All Coleman Construction personnel will have, as a minimum, the following health and safety training:

- WHMIS training
- Working at Heights (successor to the basics of fall protection) training
- CPR/first aid training

Coleman Construction employees will receive advanced training as it becomes necessary to complete safe work procedures.

It is the responsibility of any sub-contractor to ensure any and all personnel they send to a Coleman Construction job site has the proper, up-to-date training to complete the assigned work. At a minimum, all subcontractors and their employees will have WHMIS training. They will also be required to carry those safety training tickets on their person, so it can be proved whenever called upon.

Site Policy

Fit to Work

While working on any Coleman Construction, all personnel will adhere to high standard of proper hygiene. All personnel will be dressed for anticipated weather conditions of the day.

All personnel onsite will be fit to complete the work they are undertaking and will be asked to leave the site immediately if they are unfit to work due to:

-Injury

-Illness

-Fatigue

-Under the influence of drugs or alcohol

Any other reason that may affect a person's ability to safely complete the work assigned to them.

Those persons meeting any of the aforementioned criteria will be asked to leave the worksite immediately.

Site Policy

New Hire Orientation

When a person is hired onto the Coleman Construction team, a new orientation will be performed. This orientation is designed to familiarize that person with their future colleagues, the way Coleman Construction operates and general job site hazards.

A new hire orientation will consist of the following:

- Ensure the new hire has all proper PPE
- Ensure the new hire satisfies the safety training requirements
- Review emergency procedures and location of first aid stations, fire extinguishers and MSDS'
- Identify supervisors and foreman/lead hands
- Identify health and safety representative
- Identify where work will be taking place and employees duties
- Identify the general and specifics hazards associated with that site
- Review safe working procedures

Site Policy

Extreme Heat Stress Policy

Coleman Construction works all year long and with that, comes extreme high and low temperatures. This policy will outline when it is safe to work outdoors, and how to deal with the stresses arising from high and low temperatures.

Hot temperatures:

Dehydration is the biggest concern when temperatures are high. Extreme heat affects our body's natural cooling system, pair this with physical exertion, fluid loss and pre-existing medical conditions and it will lead to heat related illnesses. It is imperative that all personnel hydrate during the course of the work day to stave off dehydration. It's recommended that a person drinks 1 cup of water every 20 minutes. In conditions of extreme heat, the frequency of breaks will be increased to allow for proper hydration and reduce heat stress on the workers body. All personnel onsite should be vigilant for signs of dehydration. Major signs of dehydration are:

- Increased thirst/dry mouth
- Headache/fever
- Dizziness or light headedness
- Reduced or no sweating occurring

A buddy system will be used when working in extreme heat because it's unlikely a person will recognize their own symptoms. If any of these symptoms are noticed, hydrate immediately and escape the heat and sun until symptoms have subsided. Only return to work when it is safe to do so.

Site Policy

Extreme Cold Stress Policy

Coleman Construction works all year long and with that, comes extreme high and low temperatures. This policy will outline when it is safe to work outdoors, and how to deal with the stresses arising from high and low temperatures.

Cold Temperatures

Frost bite and hypothermia are the biggest concerns when temperatures are low. Limbs can be lost to frost bite and life can be lost to hyperthermia. Working in extreme cold temperatures stresses the body's normal heating system. Although physical exertion will temporarily increase the body's temperature, the sweat produced to cool the body off can add to the dangers of overcooling the body when exertion has ceased.

Personnel should always dress for anticipated weather condition, with proper layering of clothes in cold weather. The frequency of breaks will be increased so the body can re-establish normal temperature in a warm shelter. All personnel onsite should be vigilant of the signs of hypothermia. Major signs of hypothermia are:

-Nausea

-Fatigue

-Shivering

-Dizziness

-Irritability/euphoria

A buddy system will be used when working in extreme cold because it unlikely a person will recognize their own symptoms. If any of these symptoms are recognized, move that person to a heated area immediately. Only return to work when it is safe to do so.

Site Policy

Early and Safe Return to Work Policy

This health and safety program is designed to eliminate every possible hazard, through experience, knowledge, training, due diligence and cooperation with our employees, sub-contractors and our management. Despite all of this, accidents can happen and we at Coleman Construction, take this very seriously.

Our goal is to eliminate accidents all together. In the event of an accident, where an employee is injured, our goal is get that employee back to work as soon as possible. If your injury prevents you from completing regular duties, Coleman Construction and you will develop a plan, identifying suitable employment opportunities to keep you in the workplace.

The purpose of an early and safe return to work program is to enable you to remain in the workplace while you receive treatment for your injury or to return you to the workplace in a safe and timely manner following any lost time as a result of your injury. Going back to work may result in modified duties.

Modified duties allow you to remain in the workplace, working around your injury and not losing time from work. Once your injury has been assessed by a physician, and your functional abilities have been described, a modified duties plan will be put into place. This keeps you in the workplace.

In the unlikely event of accident, compensation for the remainder of the day is available to you. You will also be compensated for the time spent at a physician's office while you obtain a functional abilities assessment (WSIB Form 8). The day after your physician visit, you and Coleman Construction will institute a modified work schedule and duties list. This list will be influenced by your functional abilities assessment. Light, sedentary work will be prescribed to ensure your injury is not aggravated and you can continue working.

Safe Working Procedure

Material Handling

Improper lifting a leading cause of back injury in the work place. Lifting with the knees, twisting and turning while lifting and lifting loads that are too heavy are all major causes of back injury. Back injuries take a very long time to heal, and can't be very troublesome down the road. A slight amount of aggravation can undo months of healing. It is imperative to only lift loads you can carry; and to lift them properly.

When lifting loads, follow these steps:

- Size up the load, meaning: ensure you can safely lift it.
- Make sure the pathway to the loads destination is clear and free of hazards
- Lift with your knees and not your back. This is the most crucial step to lifting
- Do not twist or turn while lifting, this strains muscles resulting in injury
- Pull the object towards you while carrying, this helps with balance
- To put the load down, reverse the process. Keeping your back straight, bend your knees, place the load on the ground.

When lifting lumber or pipes, pick up one end of the object, move to the center and balance the object on your shoulder. If lifting an object with only one hand, extend the other arm for counter balance. This helps to reduce pressure on the back and spine in particular.

Call for help if the load is too heavy, long or awkward to handle alone. Use hand carts, pipe carts, chain falls and chain hoists or machinery like lifts to do the lifting whenever possible.

Gas cylinders must be in moving cages when they are to be handled. The gas cylinder cage must completely enclose the cylinder and have lifting point for safe handling. If moving a gas cylinder with a hand cart, the hand cart must have a chain, securing the cylinder to the cart and restricting lateral movement.

Site policy

Material Storage

Proper material storage is essential to the fluidity of a productive worksite. Knowing where materials are at all times reduces search time and increases productivity. Materials are not to be stored any closer than 1.8m from a roofs edge, floor opening or an open excavation.

Proper material storage for materials is as follows:

- Material to be lifted by crane, are not to be stored under power lines
- Overhead protection is required in areas if the possibility exists for material to fall

Lumber:

-Should be piled, stacked or otherwise stored to prevent tipping or collapsing. Lumber will be piled away from sources of ignition and away from designated smoking areas.

Gas cylinders:

-Will be in a steel enclosure outside, away from sources of ignition and high traffic areas. Cylinders must be standing, with safety caps screwed on and secured together. Cylinders must not be left on uneven ground. A physical barrier must be in front of the gas cylinder enclosure; which can be a berm, or steel piles in the ground. Enclosure must be grounded to protect against static electricity.

Hazardous chemicals:

-Will be stored according to manufacturer's specifications, in an area away from foot and equipment traffic, with proper ventilation and away from sources of ignition. Warning signs, clearly identifying the nature of the chemical in storage will be posted around the enclosure and easily identifiable. A chemical spill kit will also be stored in that enclosure

Class "ABC" fire extinguishers will placed at strategic locations around combustible materials.

Site policy

Fire Prevention and Fire Extinguishers

Fire extinguishers are the first line of defence against an active fire. Of course, preventing the fire in the first place is the best practice. In a lot of cases, having a fire extinguisher on hand makes the difference between a close call and an emergency. Multiple classes of fire extinguisher exist, all designed to combat a specific scenario. Class A extinguishers are designed for wood products and other common flammable materials. Class B extinguishers are designed for flammable liquids like gasoline and grease. Class C extinguishers are designed for electrical fire.

All Coleman work sites will have Class ABC fire extinguishers on hand. Their location on site will be told to all personnel onsite. These extinguishers will be inspected as per the manufacturer's guidelines and properly certified and recharged, if required, by a licensed facility or technician.

The threat of a fire is always a possibility around hot work. Sparks and slag from grinding and welding can travel great distances under the right conditions or be lost between cracks in flooring and walls or enter ducting. They may contact flammable material or electrical equipment. Smoldering of these materials is the biggest fear as it can go undetected for hours.

The following steps should be taken to prevent fires and explosions:

- Ensure that all flammable and combustible materials are properly stored away from sources of ignition
- Review all MSDS' for materials onsite as they may require special firefighting precautions. Ensure that all personnel onsite are aware and properly trained to deal with any emergency
- Obtain a hot work permit from the site superintendent and ensure a properly inspected "ABC" fire extinguisher is close by. See Annex#4
- Clear the area where hot work is to take place of any flammable materials, explosive material and general debris that may cause a loss of balance.
- Ensure gas lines are properly connected and no leaks exist at the tanks, in the lines, or at the cutting torch.
- Place fire barriers, sheet metal or fire retardant blankets on the ground or wall where sparks or slag could possibly enter cracks or crevices.
- Provide a fire watch where necessary. A fire watch is a person who looks for fire as the welder completes his work and for at least 30 minutes after work has been completed. This person must be fully trained in the use of a fire extinguisher and the location of fire alarms. A third person may be needed in cases where both sides of the wall are at risk or on more than one floor.

Site policy

Fall Arrest Rescue

In the event that a worker falls and is left suspended by their fall arrest system, a rescue must be undertaken as quickly as possible to reduce the risk of further injury such as suspension trauma or loss of blood flow to the lower extremities. The suspended worker may begin to panic, keep them as calm as possible.

If an adequate elevated work platform is available:

- Ensure those undertaking the rescue are protected against falling
- Bring the platform to the suspended worker, ensuring that the platform can withstand the load
- If the worker is not conscious or cannot reliably help themselves, have a second rescuer to help
- Place the platform underneath the suspended worker and only disconnect their lanyard when it is safe to do so.
- Give the worker first aid treatment and arrange transport to the nearest hospital

If no elevated work platform is available:

- Ensure those undertaking the rescue are protected against falling, rigging separate lifelines for rescuers
- Use ladders wherever possible to reach the victim
- If the worker is not conscious or cannot reliably help themselves, have a second rescuer to help
- If the worker is suspended from a lifeline, where possible, move the suspended victim to an area that can be safely reached by ladders
- Other rescuers should lower the victim while the victim is guided by the rescuer on the ladder
- Once the victim is safely on the ground, deliver first aid treatment and arrange transportation to the nearest hospital

If the worker can be reached from the floor or the area they fell from:

- Ensure those undertaking the rescue are protected against falling
- If possible, securely attach a second line to the workers harness to assist in pulling them to a safe area. (note: at least 2 strong workers will be needed to pull someone up.)
- Ensure that any slack in the retrieving lines is taken up to avoid slippage
- Once the victim is safely on the ground, deliver first aid treatment and arrange transportation to the nearest hospital

If a person has fallen and is suspended in an inaccessible area like a tower, against a building or structure that has no openings:

- Call 911 immediately due to the inherent risk to the rescuers and the victim

Safe Working Procedure

Ladders

Ladders are a leading cause of lost-time workplace injuries. There are many factors that contribute to an accident where a ladder is involved. These include uneven footing for a ladder, not properly secured at the base and top of ladder, unfavorable weather conditions such as wind or ice on the rungs or the ladder not being able to support the load put on it.

Workers can also contribute to a ladder accident. When a worker takes an unsafe position on a ladder by leaning out, poor placement of their feet and not maintaining 3 points of contacts while climbing or working.

To prevent any ladder associated workplace accidents, these guidelines are to be adhered:

- All ladders on site must be in good condition and free of defects. Ladders not in good condition must be removed from site immediately
- All ladders must have an ANSI/CSA certification on them. Wooden ladders are strictly prohibited
- Ladders must be set up on level ground, or good footing. If a ladder is to be set up on uncompact or rough soils, a mud sill will be used
- Ladders must not be set up in traffic areas such as doorways, passageways, traffic areas unless proper barricades are erected
- Where a ladder will be in a fixed position for any amount of time, the ladder must be secured at the base and at the top to prevent any slipping of the ladder and lateral movement. If this is not possible, then a worker will remain at the base of the ladder while in use
- Ladders must not be set up around power lines or sources of electricity. Ladders must be not be set up on boxes, crates, tables, scaffold platforms, elevating work platforms or vehicles
- Ladders must not be used horizontally to replace scaffold planks, runways or any other service for which it is not intended
- Non self-supporting ladders must extend 900mm (3 feet) above the top landing and afford clear access to top landing and base of ladder.
- Ladders must be set up at an angle such that the horizontal distance between the top support and base is not less than one-quarter or greater than one-third the vertical distance between these points
- While climbing a ladder, the worker must always be facing the ladder and maintains 3 point contact on the ladder at all times
- While on a ladder, the worker must not straddle the space between the ladder and another object

Safe Working Procedures

Access and Egress

Getting into an area and out of an area can be simple, but can also be accompanied by specific hazards. Height restrictions can exist in one area or the ground can be treacherous in another.

-Areas of access and egress must be adequately lit

-Access to and egress from a work area located above or below ground level shall be by stairs, runway, ramp or ladder, in good condition and free of debris or obstruction

-All areas of access and egress, to and from, shall be free of obstruction including tarps and plastic materials

-In the winter, areas of access and egress are to be kept clear of snow and ice and treated with salt or sand to improve traction

-All personnel vehicles will be backed into the parking spot, where possible

Safe Working Procedures

Aerial Lift Equipment and Elevated Work Platforms (See Annex 6 for inspection sheet)

Aerial lift equipment and elevated work platforms can be essential when working a heights. They reach areas where ladders are impractical and allow workers to move horizontally while maintaining the same height above ground. Special care needs to be taken when operating aerial lift equipment or using elevated work platforms:

- All aerial lift equipment and elevated work platforms will be designed by a professional engineer in accordance with good engineering practice
- All equipment must be inspected daily before each use and maintained according to manufacturer specifications. All safety features must work as they were intended. Any alteration to a safety feature is strictly prohibited and will result in consequence
- All equipment must have signage declaring maximum load limits and any other warnings specified by the manufacturer that are clearly visible
- Only workers trained in the proper use of the equipment are allowed to operate that piece of equipment
- The aerial lift equipment must only be used on level, competent ground
- The weight load limit must not exceed the maximum rated load for which the equipment or platform is intended.
- All elevated work platforms will have guardrails that are securely fastened and free of defect
- All personnel must be wearing fall protection PPE and be securely tied off when equipment or platform is in motion
- All equipment and platforms must only be used for the intended purpose for which it has been designed
- At no time will a person move from the basket/cage of the equipment to another location while suspended in the air

At no time will the basket/cage or platform be lifted near power lines or other sources of energy without the use of a signalperson who will direct the operator to their proximity to the lines or the equipment is an approved insulated device with a dielectric rating for live line voltage. Safe limits of approach to energized lines are:

Nominal phase to phase voltage rating	Minimum distance
750 volts to 150,000	3 metres (10 feet)
150,000 volts to 250,000 volts	4.5 metres (15 feet)
250,000 volts or greater	6 metres (20 feet)

Safe work Procedures

Compressed Air/Gas Tools

The use of compressed air tools speeds up the productivity of a site. They also alleviate stresses that would normally be a person body i.e. driving nails or removing and tightening nuts on bolts. Most air tools are designed with safety features, but care should be taken while using them. Although discharge without input is unlikely, it is not impossible. When using air or compressed gas power tools, ensure the following:

Ensure all air lines are in good condition and free of defect and properly connected to the compressor. Ensure you are using the correct hose connections. For high volume air compressors, an air whip will be attached to the air line

A proper pressure regulator and relief device must be in the system to ensure proper pressures are maintained and not exceeded

Ensure tools, air lines and compressor are in good working condition and have been maintained to the manufacturer's specification. Any damaged equipment must be repaired or replaced before use

Wear proper personal protective equipment such as eye protection and face shields when working with compressed air tools

Ensure that air pressure has been completely discharged before connecting or disconnecting air hoses

Some air tools have a "bump" feature, meaning you can hold the trigger and depress the safety and the tool will discharge each time the safety mechanism is depressed. Know how to use the bump feature before operating a tool with that feature.

When operating explosive actuated fastening tools like a ramset, proper knowledge in its use must be clearly instructed before work is to commence.

Safe Work Procedures

Asbestos

Asbestos is a naturally occurring material once widely used in the construction industry. Its strength, ability to withstand high temperatures, its ability as an insulator and its resistance to chemicals makes it very useful for a wide variety of applications. However, when asbestos is inhaled, it is very harmful and can cause lung diseases and cancer.

It is the project manager's duty, prior to the commencement of a project, to obtain a copy of the site owner's asbestos report, if applicable.

In the event asbestos is found onsite, work cannot proceed until all asbestos has been removed and a written notice from the site's owner has been obtained stating such. Should the contamination NOT impact the worksite, the supervisor must inform all workers onsite of the location of the contamination and what not to disturb.

It is the supervisor's duty to ensure that any and all materials onsite are asbestos free, particularly in older facilities. It is the workers duty to contact the supervisor should there be any doubts to the existence of asbestos in the work site.

The following are places where one might encounter asbestos:

- Sprayed-on fireproofing
- Pipe and boiler insulation
- Loose fill insulation
- Asbestos cement products
- Acoustical plaster
- Vinyl asbestos
- Gaskets
- Roofing felts
- Asphalt/ asbestos limpet spray
- Drywall joint filling compounds
- Coatings and mastics

Safe Working Procedures

Barriers and Barricades

The proper use of barriers and guardrails prevents personnel from entering areas that hazardous or contain hazardous materials. They can also prevent materials from falling from heights.

Hazardous areas must be cordoned off from workers in the area to prevent accidents. When barriers or guard rails must be removed for work, express permission from the supervisor must be obtained. When any barricade is removed, workers must use a fall restraint system suitable for the work in the intended area.

Once work has been completed, but the hazard still exist, barricades must be replaced immediately following egress from the area.

Common situations requiring a barricade:

- Open excavations
- Working on roofs
- Working on formwork
- Around gas cylinders
- Traffic control

Safe Work Procedures

Buried Utilities

Buried utilities are present on almost every work site. They can be buried electrical lines, plumbing lines, gas lines, water lines and telecommunication lines. Striking one can have serious and life threatening implications. A person can be electrocuted when striking power lines, or an explosion may occur when striking a gas line as they are pressurized.

No digging or excavating is to take place without the existence of current and valid locate documentation for buried utilities. There will be no exceptions to this rule.

Furthermore, supervisors should be vigilant for signs of unmarked utilities such as maintenance holes, catch basins, pedestals, junction boxes, water and gas meters, valve chambers, conduit affixed to wood poles, test posts and sunken ground.

Site Policy

Confined Space

A confined space is defined as an area that:

- Is partially or fully enclosed;
- That is not both designed and constructed for continuous human occupancy;
- Where atmospheric hazards may occur because of its construction, location, or contents, or because of work that is done in it.

When an area is partially or fully closed, air cannot move freely in and out. This is especially true for vaults, tanks, pits, trenches and manholes. An area is not designed for human occupancy when it is not meant for people to work in them on an ongoing basis. A hazardous atmosphere is an atmosphere where flammable, combustible or explosive agents can be accrued, when oxygen levels drop below 19.5% or above 23.0%, or the accumulation of atmospheric contaminants causing acute (short-term) health effects which pose an immediate threat to life or interfere with a person's ability for egress.

Before any person enters a confined space, a hazard assessment must be completed. The hazard assessment must be completed by a competent person, who has been trained in confined spaces and has the experience to determine which hazards can be eliminated. The name of the assessor must be on the written assessment and the employer must keep a record of the competent workers qualifications. The hazard assessment must take into consideration the hazards that may exist in the confined space, the hazards that may develop while work is performed inside the confined space and general safety hazards associated with confined spaces.

-Physical Hazards include:

- Excessive noise and vibration
- Temperature extremes
- Cramped work spaces
- Rotating or moving equipment
- Poor access and egress
- Electrical hazards
- Lighting
- Engulfment due to uncontrolled movement of liquids and solids

All of these hazards often present a greater danger inside an enclosed area than they do outside the enclosed area. All of these hazards will be considered when completing an assessment. Facility personnel should be consulted when completing an assessment.

Confined Space (con't....)

- Atmospheric hazards include:
 - Flammable atmospheres
 - Combustible atmospheres
 - Explosive atmospheres
 - Oxygen enriched and deficient atmospheres
 - Atmospheric contaminants

Hazards in the atmosphere may be due to existing conditions like residues from a tank or may be created by the type of work being completed in the confined space like fumes from welding. Pockets of gas can be released when sludge or scale is removed. A dangerous atmosphere may be flammable, but it may also create an oxygen deficient environment. A flammable environment is usually caused by volatile liquids evaporating, like gasoline, or the decomposition of organic material releasing methane, which is also the most common explosive gas encountered in a confined space. That's not to say that other explosive atmospheres won't be encountered. Any volatile hydrocarbon like hexane, gasoline, propane will create an explosive atmosphere and can collect in low lying areas like pits and trenches as they are heavier than air. Combustible atmospheres arise when large amounts of combustible material are present, like in grain silos, feed mills and bag houses, wherever a large amount of dust collects. The most dangerous are grain and flour dusts. All of these hazards will be addressed when performing an assessment.

An oxygen enriched environment is defined as any environment where the oxygen level exceeds 23.0%. In such an environment, things that would normally smoulder will burn vigorously in an enriched environment. These types of environments are not commonly encountered in the workplace. An oxygen deficient environment is more likely to be encountered and is any environment with an oxygen level below 19.5%. These environments can be from natural processes that consume oxygen, like bacterial action or rusting, or could be from work being done including welding. Commonly oxygen will be displaced by a heavier gas like nitrogen and carbon dioxide.

Pure oxygen is never to be used to re-oxygenate a confined space. Clean air will be used.

Air monitors will be employed when assessing a confined space. The air will be tested for levels of oxygen, carbon monoxide and dioxide, hydrogen sulphide and volatile organics. This may require more than one monitor and monitors able to sample at different lengths, meaning farther down the pipe or shaft. Plan For Controlling Hazards:

Once the assessment of hazards has been completed, a plan for controlling, if not eliminating the hazards, is to be developed. There are eleven mandatory requirements that are to be satisfied in the plan:

- Duties of the workers
- Coordination document (if more than one contractor enters at the same time)
- Onsite rescue procedures
- Rescue equipment and methods of communication

Confined space (con't...)

- Protective clothing and equipment
- Isolation of energy and control of material movement
- Attendants
- Adequate means of access and egress
- Atmospheric testing
- Adequate procedures for working in the presence of explosive or flammable substances
- Ventilation and purging

All of these requirements are to be satisfied, and clearly instructed to all those involved in the work taking place. Knowing the role of each individual prevents miss communication and ensures the work will go ahead as planned. In the event a new hazard is identified while in the confined space, it is imperative to evaluate and correct as soon as possible. Egress and a reassessment may be required.

The employer must review the assessment as often as necessary to ensure the plan remains adequate. If the potential for danger changes due to changes in work or the addition of a chemical hazard, for example, the assessment must be changed. No confined space work will be completed without all necessary requirements being satisfied. No personnel shall enter a confined space alone.

Safe Work Procedure

Chainsaws

Chainsaws are a leading cause of accidents in the workplace and at home. Proper training, good working condition of the saw and personal protective equipment are all crucial to preventing chainsaw related accidents. When using a chainsaw, you must wear proper PPE:

- Hardhat
- Full face shield
- Protective footwear
- Hearing protection
- Leather or denim leg chaps

When operating a chainsaw, ensure:

- The saw is in good working condition
- The brake on the saw works properly
- You are not in close proximity to any other persons
- The saw is properly maintained

Safe Work Procedures

Electrical Safety

Electricity on site is always a necessity. Power is required to run almost all tools, get ground level grades, charge batteries etc. In some cases, power is already onsite i.e. Hydro is still connected. In other cases, fuel powered generators are required to supply power.

If power is already onsite, i.e. hydro is still connected:

- Ensure power cord of the tool is in good condition
- Ensure any extension cords are in good condition and free of defects
- Ensure that any cords being used are not in traffic areas. This will reduce the likelihood of a trip because of the cord, or the cords damage from being run over

If hydro is not connected onsite and fossil fuel generators are required, addition precaution is to be taken:

- Do not operate a fossil fueled generator indoors, or in any area that is not properly vented
- The generator is not working next to any fuels, chemicals or compressed gases
- The generator must be turned off when refueling

The generator is to be properly grounded when in use. This is achieved by driving a length of rebar 600 millimetres (2 feet) into the ground and connecting the generator to the rebar with copper cable. This will also help to dissipate any static charge accrued while the generator is in use.

Any and all electrical repair will only be completed by an authorized electrician.

Site Policy

Working at Heights

Any and all personnel on site, working at any height above 3 metres (10 feet) must be protected by guardrails, or if guardrails are not practical, by a travel restraint system, fall restricting system, fall arrest system or safety nets. All employers, supervisors and workers share the responsibility of reducing or eliminating falls in the workplace. Areas where such systems must be in place include any surface where a worker may have access to an unprotected edge. All personnel working at heights, must have proper training to do so.

Guardrails are excellent at eliminating falls in the work place. They create a physical barrier between a worker and the edge of a surface or a specific hazard. When installing or removing guardrails systems, all workers must be in fall arrest or travel restraint systems. The area must be clearly identified by its hazards, and roped off if possible. The minimum requirements for the construction of guardrails are as follows:

- Top rail, mid rail and toe board must be secured to vertical supports, which are no farther than 2.4 metres (8 feet) apart.
- Top rail is between 0.9 metres to 1.1 metres (3 feet to 3 feet 7 inches) high
- Toe board is 89 millimetres (3.5 inches) high, and is secured flush to the working platform
- The guard rail is to be installed no farther than 300 millimetres (1 foot) from the exposed edge
- The construction of the guardrail must be able to support all loads that it will be subject to, anywhere along its length

If a floor opening cannot be properly guarded by guard rails due to impracticality such as a narrow access route, the floor covering must stand out with bright paint and must include a warning sign: DANGER! OPENING!-DO NOT REMOVE!-DO NOT LOAD!

Travel restraint systems limit a workers ability to fall by limiting where and how far they can travel on the work site. It allows a worker to travel just far enough, to the edge of but not far enough to fall over. All components in the system must be able to withstand any load applied to it. A basic travel restraint and fall arrest system includes:

- CSA approved full body harness
- CSA approved Lanyard with energy absorber and locking snap hooks
- Lifeline (cable, polypropylene blends. Cannot be manila rope)
- Rope grab to attach harness to lanyard to harness
- Proper anchoring

Working at Heights (cont...)

Proper planning is crucial when working with a travel restraint system. All fall hazards must be identified and eliminated, if possible. All PPE must be checked daily for damage by a competent worker. This includes loose stitching, frays or tears, or any other form of damage. Any damaged or defective equipment is to be removed and replaced with one that meets or exceeds the manufacturer's performance standards. All equipment being used must be CSA approved and have the proper load ratings visible. All adequate anchoring points must be identified and if possible, as close to the edge and perpendicular to the work area. The system must be adjusted such that a fully extended lifeline or lanyard prevents the worker from reaching any point where the worker may fall.

Fall arrest systems are used when guardrails and travel restraint system cannot protect a worker from a fall. Where this is the case, fall restricting, safety nets and fall arrest systems are to be used. When employing these systems, they must be set up such that a worker cannot hit the ground, or next lowest level (bottoming out). Safety nets must be designed by a professional engineer and installed according to manufacturer's requirements. Lifelines must be designed by a professional engineer, and installed according to manufacturer's requirements, in either horizontal or vertical applications. Retractable lifelines are to be inspected by a competent worker and recertified by the manufacturer or another approved testing facility according to the manufacturer's guidelines. Lifelines will be:

- Free of cuts, burns, frayed strands, abrasions, and any other form of defect
- Free of discoloration and brittleness indicating heat or chemical exposure (including ultra-violet radiation)

When using a vertical lifeline, ensure that:

- The lifeline is free of defects
- Is adequately anchored
- Reaches the ground or next level where a worker can safely exit
- The lifeline has a positive stop to ensure the rope grab cannot run off the end of the lifeline
- Only 1 person at a time is using the lifeline
- When using a horizontal lifeline, ensure that:
 - The lifeline is free of defects
 - The design clearly indicates how the system is to be arranged
 - The maximum number of workers who can be attached at any given time is not exceeded
 - The system has been installed, inspected, and maintained in accordance with professional engineers design

Proper anchoring while using any type of fall arrest system is paramount. If the anchor is to be in a fixed or temporary position, it must be specifically designed and permanently installed for its application such as roof anchors or for high rise buildings. When using existing structural features or equipment not intended as anchors can be verified by a professional engineer or competent person to be used as an anchor point such as a concrete

Working at Heights (cont...)

column or reinforced structural steel. As a general guideline, any anchor system must be able to support the weight of a small car (taking into account a safety factor of 2). When choosing an anchor point, it is important to consider any kind of pendulum effect in the event of a fall. The worker can strike columns or walls, or the lifeline or lanyard can be cut if it runs over rough or sharp edges. Never anchor to roof vents, roof hatches, small pipes and ducting, metal chimneys, TV antennas, stair or balcony railings, fixed access ladders, or anything else that cannot support the weight of a small vehicle.

Safe Working Procedure

Equipment and Machinery

Equipment and machinery are very common on almost all worksites. They can range from a small jack hammer for chipping concrete to large excavators for moving a lot of earth. It is paramount that all personnel who are operating equipment or machinery are trained in its proper use and maintenance.

When operating any kind of equipment, proper PPE must be worn relative to the equipment. As an example, some equipment does not require hearing protection while others do. Ensure that all PPE required by the manufacturer is being worn.

When operating any kind of equipment, ensure it is in good working condition, and has been properly maintained. All kill switches and any other safety features i.e. guard or physical barriers are in place and working properly. Any defective equipment will be identified and will not be used until the proper repairs have been completed.

When working around heavy machinery like excavators, cranes, back-hoes etc... extra care is necessary. The operator of a large piece of equipment does not have the same vantage point as a worker on the ground. Being inside the equipment limits the view and many blind spots exist. When working around a large piece of equipment, always:

- Stay out of the main traffic area and working area
- Make eye contact with the operator when in their work area
- Employ proper hand signals, where possible
- Stay away from swing areas of machinery
- Never stand beneath a load suspended by heavy machinery
- Never try to cross the path of large machinery without first making eye contact with the operator

When operating equipment or machinery in the vicinity of energized electrical lines, no part of that equipment or machine will be brought closer than the minimum safe distances listed below:

Nominal phase to phase voltage rating	Minimum distance
750 volts to 150,000	3 metres (10 feet)
150,000 volts to 250,000 volts	4.5 metres (15 feet)
250,000 volts or greater	6 metres (20 feet)

The risk of an arc from the energized lines and equipment is greater when not abiding by the safe limits of approach. As a general rule, the bigger the insulator on the energized line, the farther away you must stay.

Safe Working Procedure

Scaffolding

Scaffolding, or Staging, is a temporary structure used to support people and material in the construction or repair of a building or other structure. Scaffolds must be erected with all lateral braces, pins, screw jacks, base plates, and other fittings installed as described by the manufacturer. All components of the scaffold being erected must be in good condition and free of defects. The erection of scaffolds must be completed by, or under the supervision, of a competent person. When erecting or dismantling a scaffold, the worker performing the job must have adequate surface from which to work. Any worker on a scaffold, taller than 2.4m (8 feet) must be wearing and using fall arrest techniques.

No scaffold system shall be subject to loads that it was not designed for. This includes weight from additional personnel or materials. All scaffolds will only be erected on competent, level surfaces. If this cannot be achieved, the use of footings, sills or other rigid supports, capable of handling 2 times the load applied to it, must be used.

Scaffold planks must be at least 48mm by 248mm (1-7/8" by 9-3/4") in cross section and must be made from No.1 spruce or better. All scaffold planks must be in good condition, free of splits, rot and knots. Scaffold planks must be securely fastened to prevent them from sliding. Scaffold platforms must be at least 460mm (18 inches) in width. If working at a height greater than 2.4m (8 feet), scaffolding planks or platforms must cover the full width of the scaffold. Scaffold planks must be installed to overhang the scaffold a minimum of 15cm and no more than 30cm (6 inches to 12 inches).

When erecting a scaffold that will exceed 2.4m (8 feet), the scaffold system must be tied to a building or structure at vertical intervals not exceeding 3 times the least lateral dimension of the scaffold, including the dimension of any outrigger stabilizing devices. This means, if the least lateral dimension is 1.5m, the scaffold needs to be secured to a building or structure, every 4.5m. Where scaffolds cannot be tied to building or structure, properly anchored guide lines are to be used to provide stability.

Wheels, or castors on rolling scaffold must be equipped with braking devices at all times, and must be pinned to the scaffold at all times. No work on a scaffold is to be completed while scaffold is not fully disabled from rolling.

Frame scaffolds over 15m (50 feet) high or tube and clamp scaffolds over 10m (30 feet) high must be designed by a professional engineer and constructed in accordance with design.

When accessing a scaffold with the use of a ladder, the ladder must be properly secured at both the top and bottom of the ladder in such a way that any lateral movement will not cause a shift in the scaffold.

All walk ways on scaffolds will be free of slip, trip and fall hazards. They will be clear of snow, ice and other debris at all times when work is being completed.

Safe Work Procedures

Traffic Protection

All worksites have vehicular traffic of some kind. Some worksites are directly on the road. Whether traffic is simply from accessing site to tandem trucks hauling dirt and gravel, traffic is unavoidable. It's important to identify major routes of traffic and how these routes influence the placement of people, materials and work to be completed. Weather can have a major effect on traffic and this must also be considered when dealing with traffic onsite.

When dealing with traffic on a worksite:

- Ensure that you are clearly visible with a high visibility safety vest
- Avoid walking beside, in front of, or behind active vehicles or equipment
- Avoid being in the swing area of equipment and maintain eye contact. Never assume that an operator has a constant view of you
- Avoid major lanes of traffic where weather is an issue. When routes are slippery, any loss of control places personnel at risk
- All operators should never travel faster than 20kph while on site

Safe Work Procedures

Trenches and Excavation

All types of construction require the excavation of soils and rock to complete the intended task. This includes the laying of electrical cables, pipes for water, sewer and gas mains. An excavation can also be for building foundations or landscaping. With excavations come large equipment like backhoes and excavators. It is important to be mindful of where you are relative to a large piece of equipment, see equipment and machinery

The safety precautions to be taken during an excavation are dependent on the soil or rock type being excavated. Some soil types require the use of trench boxes, professionally engineered under good engineering practices; or the shoring of trench walls. These measures must be employed when an excavation is more than 1.2 metres in depth and the soils being excavated cannot support itself, i.e. soils are loose in consistency and water seepage is observed.

If the area around the excavation is not limited, the use of trench walls are not needed if the walls are sloped to within 1.2 metres of its bottom with a slope having a minimum gradient of one horizontal to one vertical. This applies to more competent soils. For less competent soils, the minimum gradient is three horizontal to one vertical.

General safety requirements associated with excavations:

- No excavating will occur without valid locate documentation and clearly marked
- All excavated material must be kept 1 metre from the open cut
- All equipment, vehicles and material including the excavator must stay 1 metre from the open cut
- No person is allowed to be in the trench or excavation alone. They must be accompanied by a person on top of the cut in close proximity to them.
- All loose material on the walls of the cut is to be knocked down to prevent cave in
- All precautions must be taken to ensure the stability of any structure in proximity of the cut
- For excavations deeper than 2.4 metres, a barrier at least 1.1 metres tall must be in place to prevent any fall
- Any open trench or excavation must be clearly marked, DANGER DUE TO: OPEN EXCAVATION
- If ladders will be used for access and egress. They must be secured at top and bottom and extend 900mm above the cut
- If shoring is required, it will be done continuously with the excavation and only grade #1 materials are to be used
- If personnel must work in the trench or cut, it must be reasonably free of water

Safe Work Procedure

Hot Work (See Annex 4 for Hot work permit)

Hot work is any process where heat is used to join, split or clean metal and other materials. Hot work can be welding, using acetylene torches, grinding and cutting wheels etc... Each of these works can be hazardous to personnel and property alike. Common hazards include:

- Fire when sparks or slag reach combustible material
- Sparks flying onto clothing, exposed skin and eyes of others onsite or the operator
- Arc flashes causing intense bright light to exposed eyes causing “arc eye”
- The inhalation of welding fumes and exhaust

Before undertaking any of these works:

- Ensure you have a hot work permit from the site superintendent
- You are wearing all required PPE
- Your area of work is clean and free of debris and unnecessary materials
- All requirements from the Fire Prevention policy are satisfied

Safe Working Procedure

Working Alone

A person is alone when they are on their own, meaning that cannot be seen or heard. Working alone includes all employees who may go for a period of time where they do not have direct contact with co-workers. While it is not always hazardous to work alone, it can be when the type of work has inherent dangers.

In the event that a worker must perform solitary work, the supervisor must ensure that the worker is aware of all the hazards in the work area and that the worker is able to recognize and assess any possible hazards that may arise while work is underway. The supervisor must ensure that any potential hazard that the worker may come into direct contact with are removed prior to commencing work.

It is the responsibility of the supervisor to ensure that the worker has a method of communicating with others and the supervisor so they can check in at predetermined intervals. The predetermined intervals should reflect the level of hazard the worker may encounter. This is especially important when the work being completed is:

- In a confined space
- At heights
- With electricity
- With hazardous substances or materials
- With equipment such as chainsaws
- With combustible materials and substances under pressure

If a worker must work alone, they are only permitted to do so during regular business hours when the job site is active. At no time will a worker perform duties alone after regular working hours.

Safe Working Procedure

Housekeeping

Clean worksites are safer worksites. This is especially true when debris and materials create trip hazards, limit access and egress or create a fall hazard if not properly stored at heights. Cleaning up waste debris is important on any worksite. It is even more crucial where winter work is being completed. Snow can easily cover the hazard, and it won't be known until an accident occurs.

-Waste material must be removed from the work area on a regular basis and at the end of each work day. Waste material must be removed immediately if it creates any hazard to workers on site. Reusable material must be placed in a storage area.

-Waste material must not be thrown down from heights. It must be carried down, lowered in containers or deposited down a disposal chute.

-Wood or materials that create a puncture hazard must not be left unattended. Nails or screws must be removed from the material if not being used or thrown away. All protruding materials must be removed in a timely manner. This includes nails and steel ties sticking out of walls or formwork.

-All subcontractors on any Coleman Construction work site will be responsible for their own waste materials and removal of that waste material. They are also responsible for the storage of their materials when not in use.

-Materials identifiable to one subcontractor which are not removed in a timely manner will be removed by Coleman Construction at the expense of that subcontractor.

Site Policy

Hygiene Facilities

Proper hygiene is a basic human right. This includes access to clean water and sanitary facilities. A worksite is not different. All Coleman Construction worksites:

- Will have access to a reasonable supply of clean drinking water, either bottled or plumbed
- No worker will be forced to share cups with other workers

All Coleman Construction worksites will have proper sanitation facilities. These facilities will:

- Be in place before the start of a project
- All workers will have reasonable access to these facilities
- The facilities will be kept serviced, cleaned and sanitized as frequently as necessary to maintain clean and sanitary conditions
- A reasonable supply of toilet paper will be kept in each facility
- If the facilities can flush, 1 toilet will be provided for every 15 workers on site; if the facilities cannot flush, there will be 1 toilet for 10 workers onsite
- A wash basin will be provided if possible. If it is not practical to have a wash basin, hand sanitizer that does not require water will be provided.
- Workers who handle or use corrosive, poisonous or other substances likely to endanger their health shall be provided with washing facilities with clean water, soap and individual towels

Safe Work Procedure

Hoisting and Rigging

The use of cranes and boom trucks or other lifting equipment like forklifts or zoom booms is common place in the construction industry. The use of lifting equipment increases productivity and efficiency by moving larger amount of materials, faster. Lifting equipment also creates hazards on the worksite. Lifting loads which the equipment was not designed for, lifting uneven loads and damaged hoisting and rigging equipment are all examples of what can go wrong when lifting. When using lifting equipment, always:

- Ensure the equipment is in good working condition and has been properly maintained according to the manufacturer's specifications
- Ensure all hoisting and rigging equipment, including slings, straps, lifting hooks, chains and cables are free of defect and in good condition. All rigging equipment must have the load capacity clearly stated on it
- No equipment that is frayed, bird caged, cut or shows other signs of stress and defect are to be used to lift any load
- Ensure that safety latches on lifting hooks are working properly
- Tag lines should be used whenever possible and practical when lifting materials
- Only those with the proper training shall complete the rigging of materials or loads to be lifted
- At no time, shall a load be left unattended while it is in the air
- At no time, shall a worker rest under a load being lifted

Safe Work Procedure

Transportation of Dangerous Goods

A dangerous good is a product or substance that could be hazardous during transportation or if there should be a leak or spill. It is the responsibility of the transporter to know whether the item is flammable, toxic, corrosive etc... and to handle the items accordingly.

When transporting any hazardous material, it is imperative to:

- Know what hazards accompany the material being transported
- Know how to handle the material being transported
- Know how to properly transport that material
- Ensure that the material is in its proper storage container before transporting
- The proper warning placard is clearly visible

When transporting any hazardous material, manufacturer's guidelines must be adhered to. If guidelines specify the container to be in an upright position, transportation can only occur in the upright position. Mishandling of materials in transit can be dangerous and life threatening.

Safe Work Procedure

Workplace Hazardous Material Information System (WHMIS)

The workplace hazardous material information system (WHMIS) is designed to give workers and employers information about hazardous materials used in the workplace, it facilitates the process of hazard identification and ensures consistency of information in all Canadian workplaces. WHMIS is also known as “The Right to Know Legislation.” All personnel on any Coleman Construction worksite must have WHMIS training

Under WHMIS, all hazardous substances must have:

- Labels on the containers of hazardous materials
- A material safety data sheet (MSDS) to supplement the label with detailed hazard and precautionary information
- A worker education program

Any supplier who manufactures, processes, packages, sells or imports a controlled substance under WHMIS must classify the material according to its hazards, must label the material as such before sale or importation and must provide up to date Material Safety Data Sheets (MSDS) as a condition of sale or importation. MSDS' must be updated as new information becomes available.

Any substance that has a dashed border must be accompanied by an MSDS. A MSDS lists very specific information about the material in question, including safety precautions, proper application, routes of entry and first aid measures. Workers must be trained in the proper use of hazardous material before working with it.

The site supervisor will ensure that all materials delivered to the worksite have proper WHMIS workplace labels and managers will provide up to date MSDS' for the materials in question and make them available on all worksites where the material is to be used. The site supervisor will ensure that the materials are handled and stored according to the manufacturer's MSDS.

Environmental Policy

Coleman Construction Ltd is an evolving organization committed to being a proactive, responsible and environmentally friendly Construction team. Our goal is to promote environmentally friendly behaviors, conserve energy, and reduce the toxic footprint left behind from construction.

Objectives:

- Purchase and use environmentally friendly products
- Encourage the use of electronic files and paperless technology
- Comply/ improve with all applicable environmental, health, and safety laws and regulations
- Control loss of soil during construction and prevent polluting the air with dust and particle matter. Prevent erosion by leaving as much of the site undisturbed as possible. For the disturbed areas, stabilize the site as quickly as possible to prevent erosion and settlement
- Control and protect against chemical contamination
- Create and enforce job specific environmental emergency measures
- Develop and build energy and environmentally friendly buildings
- Encourage and support the construction of sustainable, environmentally friendly buildings through the LEED® green building program
- Encourage staff to become LEED® accredited professionals
- Promote pollution prevention, including conservation of energy, water and raw materials, and ensure that all waste is handled and disposed of responsibly
- Conduct business in a more environmentally friendly manor, by using energy efficient equipment, reducing dependency on fossil fuels, and training staff and sub trades on how to be environmentally responsible



ANNEX 1

COLEMAN CONSTRUCTION EMPLOYEE ACKNOWLEDGEMENT FORM

I have received a copy of, carefully and thoroughly read, and understand the Coleman Construction Ltd. Health and Safety manual including:

- Coleman Construction Safety Policy

- Personal Protective Equipment Policy

- Workplace Violence and Harassment Policy

- Drug and Alcohol Policy

I understand these requirements and agree, without reservation to follow these policies.

Date: _____

Signature: _____

Name: _____



ANNEX 2

COLEMAN CONSTRUCTION SUBCONTRACTOR ACKNOWLEDGEMENT FORM

I have received a copy of, carefully and thoroughly read, and understand the Coleman Construction Ltd. Health and Safety manual including:

- Coleman Construction Safety Policy
- Personal Protective Equipment Policy
- Workplace Violence and Harassment Policy
- Drug and Alcohol Policy

I understand these requirements and agree, without reservation to follow these policies.

Contractor/Company Name: _____

Date: _____

Representative and Position: _____

Signature: _____

ANNEX 3

COLEMAN CONSTRUCTION ACCIDENT REPORT FORM

Attach all supplemental documentation, including photos, diagrams, witness statements and field reports

Project Information	Project Title		
	Project Number	Date	
	Address		
	City	Province	Postal Code
	Project Contact	Phone Number	
Accident Information			
Employee Name:		Time:	Title:
Description of Accident:			
Preventative measures taken before accident:			
Measures to be taken in the future:			
Was First Aid Administered? Yes <input type="checkbox"/> No <input type="checkbox"/>			
If yes, by whom:			
Was the worker admitted to hospital? Yes <input type="checkbox"/> No <input type="checkbox"/>			
If yes, which hospital:			
Additional Information:			
Report Completed By:			
Name:		Title:	
Phone:		Form 7 completed: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Signature:			

ANNEX 4

Coleman Construction Hot Work Permit

Project Information	Project Title			
	Project Number		Date	
	Address			
	City		Province	Postal Code
	Project Contact		Phone Number	
Work Description				
Work to be Completed By:				
Location of Work:				
Type of Work:			Specifically:	
Grinding	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Cutting	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Welding	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Soldering	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Burning	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Safety Precautions:			Specifically:	
PPE:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Fire Extinguisher:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Fire Blanket:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Fire Watch:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Combustibles in Proximity:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Adequate Ventilation	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Confined Space	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Additional Requirements:				
Additional Information:				
Permit Completed By:				
Name:			Title:	
Phone:			Approved:	Yes <input type="checkbox"/> No <input type="checkbox"/>
Signature:				

ANNEX 5

COLEMAN CONSTRUCTION PRE-SITE INSPECTION CHECKLIST

Project Information	Project Title		
	Project Number	Date	
	Address		
	City	Province	Postal Code
	Project Contact	Phone Number	
Project Details			
General Site Details			Immediate Action to be Taken
Level Ground	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Working at Heights	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Physical Barriers Required	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Overhead Wires	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Buried Utilities	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Confined Space	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Adequate Ventilation	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Proper Communication	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Hygiene Facilities	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Potable Water	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Traffic Control Required	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Other (describe):			
Report Completed By:			
Name:		Title:	
Phone:			
Signature:			

ANNEX 6

Ph:(613)346-5594

Web:www.colemanltd.ca

Fax:(613)346-1471

DAILY EQUIPMENT INSPECTION SHEET

Name of operator: _____

Date and Time: _____

Type of Equipment	Equip/serial #	Equip Hours
<input type="checkbox"/> EWP		
<input type="checkbox"/> Telehandler		
<input type="checkbox"/> Skid Steer		
<input type="checkbox"/> Other		

Inspection Code:

= OK

NR = Needs repair

NA = Not applicable

Temperature: _____

Inspect	Code	Comments
General Condition of Equipment		
Condition of tires or tracks, wheels, lug nuts		
Engine (oil, coolant, radiator, air cleaning, belts, battery connections, etc.)		
Hydraulics (check oil level, hoses and tank for leaks)		
Platform Condition (rust holes, missing bolts, loose railing)		
Guards and/or ROPS and/or seatbelts and/or tie down locations		
General Operations (test all controls, brakes, steering)		
Lights, alarms, horns		
Condition of attachments (buckets, forks, etc.)		
Fire extinguisher on board and certified		
Fuel tank and levels (tank secure, leaks, etc)		
Other		

Any and all discrepancies with equipment should be reported to the Coleman Construction site Superintendent. It is the responsibility of the operator to follow through in detail with their inspection. Any Negligence will NOT be tolerated.

Signature: _____

ANNEX 7

HEALTH AND SAFETY INFRACTION REPORT

Name: _____ Date & Time: _____

Trade: _____ Company: _____

Location of violation: _____

Infraction (Check one or more)

- | | | |
|--|---|---|
| <input type="checkbox"/> Personal Protective equipment | <input type="checkbox"/> Careless handling of material | <input type="checkbox"/> Failure to Lockout |
| <input type="checkbox"/> Horseplay | <input type="checkbox"/> Negligence of Site rules | <input type="checkbox"/> Failure to sign in |
| <input type="checkbox"/> Housekeeping | <input type="checkbox"/> Improper use of equipment or tools | |
| <input type="checkbox"/> Other: _____ | | |

Record

Worker Statement: _____

Warrantor Statement: _____

Has this worker already received verbal warning? Yes / No # of Strikes: _____

Discipline

- Warning Suspension from site ___ days Indefinite suspension pending meeting
 Other: _____

I have read and understood all information above and agree that it is true.

Worker signature: _____

