WESTWARD

SAFETY MANUAL

'Ensuring we ALL get home safely'

Prepared by: WORKFORCE COMPLIANCE SAFETY LTD.

Document Control

Acknowledgement

This Manual has been issued to: _____

I acknowledge receipt of Printed Manual #: _____

I confirm that:

- ✓ I have read and understand the requirements in this Manual;
- ✓ I will at all times comply with the requirements in this Manual;
- ✓ I will do my best to ensure that my co-workers and contractors comply with the requirements in this Manual.

Signed: _____

Date: _____

Management Sign Off: _____

Please return completed form to Westward Safety Department.

Record of Changes

Date	Change Description	Approved By:
February 2010	Initial Publication	Lee DeStephanis
2010-2019	Annual updates	Lee DeStephanis
May 2019	Annual Review, Add Document Control Section	Lee DeStephanis
June 2019	Add Falling/Dropped Object Prevention and Wildlife Awareness	Jody J. Sebryk
July 2019	Add Asbestos Awareness and update Fire & Explosion	Lee DeStephanis
July 2019	Update Safety Policy and ERP	Terrell Edwards
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December 2022	Update wording in Hazard ID and Training sections	Rich Gibson
January 2023	Create Guidance Documents section and add in JHA's	Rich Gibson
December 2023	Update LOTO Policy	Lori Beaudin
January 2024	Update Safety Policy, Committees section, 3 Rights, Inspections, and the date throughout	Lori Beaudin
June 2024	Add Vehicle Usage Policy	Rich Gibson
November/ December 2024	Update the Safety Policy, Annual review and update JHA's	Jamie Mcilvenna

All manual updates are communicated to workers in the next General Safety Meeting; any significant changes are additionally communicated via email.

***The safety information in this program does not take precedence over any applicable legislation.*

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Section 1 MANAGEMENT INVOLVEMENT

Safety Policy

Westward is committed to the health and safety of all employees, contractors, clients, visitors, external worksite parties, and the public. Our aim is to maintain an incident-free environment and protect against all loss types.

All managers, supervisors, workers, and contractors at Westward Electric Services are responsible for ensuring that the safety program is continually updated, maintained, and followed. Employees at every level are accountable for our overall safety initiatives. We uphold this commitment by:

- Ensuring the physical, psychological, and social protection of all Westward workers.
- Complying with applicable safety laws, government regulations, industry standards, and our own policies. Exercising sound judgment and common sense in all work-related tasks.
- Integrating safety considerations into our planning process.
- Remaining sensitive to public concerns.
- Identifying and mitigating the adverse impacts of our operations on the environment, in line with good environmental and business practices.
- Responding promptly and efficiently to safety emergencies.
- Committing sufficient resources to ensure employees are fully informed of their responsibilities and trained in safety procedures.
- Actively addressing any potential health, safety, or environmental issues related to work undertaken by Westward employees or contractors.

All Westward employees and contractors must obey all safety rules, follow recommended safe work practices and safe job procedures, use appropriate personal protective equipment as required, participate in safety training programs, and inform supervisors of any unsafe work conditions. Do not engage in any activities you deem unsafe as you have the right to refuse unsafe work. You are not expected to sacrifice safety or well-being for expediency or any other reason.

Management, employees, and contractors are all committed to meeting this policy now and in the future.

President - Lee DeStephanis

November 28, 2024
Date

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Company Profile

Westward has been providing electrical construction and maintenance services in new construction and mining throughout Alberta, since 2004. We are based out of Fort McMurray, AB.

Organization Chart

Responsibilities

The President has the ultimate responsibility for the health, safety and environmental management system. The President will ensure adequate support, resources, programs and systems are in place to safely perform company activities.

The President is responsible to:

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

Company Managers

Westward management will actively promote the health and safety of employees and contractors by ensuring that all personnel at worksites are adequately trained and prepared. Westward will make workers aware of their responsibilities and ensure that all relevant regulations are followed.

The Managers are responsible to:

- Administer all phases of the health, safety and environmental management system at the site and ensure all supervisors and workers understand and are accountable for compliance with performance standards.
- Review all accident reports regardless of severity, including all near-misses, injury and other losses. Ensures corrective action is taken to prevent recurrence of same or similar incidents.
- Enforce all phases of the established health, safety and environmental management system.
- Ensure adequate and suitable safety equipment is supplied. Review all requests and needs for additional safety equipment.

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- Demonstrate ownership, leadership and active participation in all phases of the health, safety and environmental management system.
- Set and demand high health, safety and environmental management system standards for all employees.

Company Supervisors

Westward supervisors have day to day contact with the workers, the main safety goal of supervisors / foreman is to show, by means of example, safe work practices and habits.

The Supervisors are responsible to:

- Establish with all employees an understanding of their responsibilities and specific duties.
- Assist in the completion of all accident reports regardless of severity, including all near-misses, injury and other losses. Ensures corrective action is taken to prevent recurrence of same or similar incidents.
- Review and evaluate individual safety performance of members of line management; provide guidance and facilitate training, where needed, to improve performance.
- Enforce all phases of the established health, safety and environmental management system. Be an example.
- Ensure adequate and suitable safety equipment is supplied, and is properly used, cared for and maintained.
- Conduct pre-job hazard identification surveys prior to the commencement of work.
- Demonstrate ownership, leadership and active participation in all phases of the health, safety and environmental management system.

Westward will supervise its own subcontractors. Subcontractors working for Westward must meet the same safety standards as Westward personnel. Before using any subcontractor the Westward site supervisor must ascertain that the subcontractor meets the Westward contractor pre-qualification requirements.

Company Employees

At Westward we take care to maintain a professional and proper work environment. In regards to behaviour, the following principles should be followed:

- Employees are expected to be polite and courteous, and to co-operate with all other employees and contractors.
- Employees must behave in a manner that ensures the safety of yourself and your fellow employees.
- Ensure that fellow workers are also practicing safe work practices; discuss this with the worker or alternatively, report individuals you feel are

endangering the health and safety of themselves or their fellow workers.

- Call for assistance when needed, rather than attempting to do a hazardous job under-equipped or alone.
- Report any identified hazards or hazardous conditions to a Manager or Supervisor.
- Report any Accidents/Incidents that occur while working to Westward Management.
- Become thoroughly familiar with the safety program and its requirements.
- Actively participate in safety program development (ongoing evaluation) and maintenance.
- Follow safety standards and safe work procedures set out by Westward and regulatory requirements.
- Refuse to perform work when unsafe conditions exist (as defined in provincial occupational health and safety legislation), and refuse to perform work that you are not competent to perform.
- Immediately report to supervisors all accidents, incidents, injuries, and illnesses.
- Use required Personal Protective and Safety Equipment.
- Check tools and equipment, including personal protective and safety equipment for hazards before using them.
- Identify and report any safety hazards and unsafe work conditions or inadequately equipped or trained personnel to management immediately.
- Approach management about any issues relevant to the safety program that you feel would improve the health or safety of Westward employees, contractors, or the environment.

Westward personnel must not enter on to a client site without first notifying them that we are entering that site. When this cannot be done (ie. Remote sites, away from local operators), Westward Personnel must notify the office of their location. If Westward personnel are going to enter an active site or facility the clients' Safe Work Permit must be filled out and permission to enter the site must be obtained.

Westward Contractor Responsibilities

The definition of a contractor is a person who, or a partnership or group of people that, pursuant to one or more contracts, directs the activities of one or more employers or self-employed people involved in work at a place of employment. A subcontractor is the employer or self-employed person hired to work under contract.

If an outside company or self-employed person is hired on a contract and you direct their activities, then you become a 'contractor' under health and safety legislation. The following will need to be done:

- Set up a system of shared responsibilities and determining 'who is responsible for what' in relation to the health and safety of **all** workers in the workplace;
- Control any health and safety hazards—over which you, as the contractor have complete and direct control—that could affect the subcontractor' (keep in mind that the subcontractor is responsible for controlling hazards within the subcontractor's direct and complete control);
- Co-operate with subcontractors to control health and safety hazards that are not within the direct and complete control of the contractor;
- Co-coordinate the health and safety programs of two or more subcontractors working at the place of employment;
- Provide subcontractors and their occupational health committees with any relevant information available to the contractor that could affect their health and safety, or anyone else's health and safety;
- Ensure subcontractors understand who is responsible for health and safety activities that affect them;
- Monitor subcontractors to ensure they comply with workplace health and safety requirements, and taking action to correct any non-compliance.

Visitors / Public

All visitors must report to a supervisor immediately upon entering a location. Visitors include Regulatory Authorities, Landowners, any other person who is not essential to the operations and has not been orientated to the site. Visitors are never allowed to walk around unescorted, and must follow the instructions of the site supervisor or person escort. All visitors must wear the proper Personal Protective Equipment.

At Westward we take all precautions to keep visitors, workers, and the public safe by the use of barricades, signage, load securement, fatigue management, site security, as appropriate, for our location.

Work Site Health and Safety Committee or Representative

A worksite health and safety committee or representative is a communications link between workers and management. Its purpose is to promote awareness and interest within the company in health and safety at the work site. Westward Committee members work together to identify and help solve health and safety concerns in the workplace. Our health and safety committee is designed to improve the health and safety culture of the workplace and eliminate hazards and reduce incidents associated with work processes.

In Alberta:

- A joint work site health and safety committee is required at companies with 20 or more workers regularly employed. The committee must have at least 4 people and must meet at least quarterly.
- A health and safety representative must be designated at companies with 5 to 19 workers regularly employed. The employer or prime contractor (if applicable) must meet with the representative regularly to discuss health and safety matters, or if a special meeting is called by the representative to deal with urgent concerns at the work site. The health and safety representative must be at the worker level.

Every employer and worker in the province has a moral and legal responsibility to maintain a safe and healthy work site. Committee members and Representatives need the strong support of company management since they are the ones who make things happen. Health and safety must be managed just like production, quality, and maintenance.

Responsibilities

The duties of the joint work site health and safety committee, or health and safety representative, if applicable, will include:

- Receiving, considering and disposing of concerns and complaints about the health and safety of workers. All concerns are immediately reviewed and categorized. High-hazard concerns will be dealt with immediately and all concerns will be dealt with within the week (final solutions may take additional time if a process change or a purchase is involved).
- Participating in the identification of hazards to workers or others arising out of the activities at the work site.
- Developing and promoting measures to protect the health and safety of people at the work site and checking the effectiveness of such measures.
- Developing and promoting programs for education and information concerning health and safety.
- Making recommendations to the employer, prime contractor or owner on the health and safety of workers.
- Regularly inspecting the work site (which can include an office tower in a large centre like Calgary or Edmonton).
- Cooperating with OHS officers in enforcing the Act, the Regulations or the Code, participating in investigations of serious injuries and incidents, and maintaining records on all matters relating to the duties of the committee.
- Collaborating with other H&S Committees while on site.
- Report all findings to management.

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Training
All committee members and representatives must be trained on what is expected of them (a minimum requirement of 16 hours). All of the representatives receive training respecting the duties and functions of their job and the committee (roles and responsibilities, work site party obligations, and workers' rights). Members of the joint work site health and safety committee or the health and safety representative must be paid for time spent on their duties in this role.

Committee Members
Westward has selected persons for the committee to ensure that there is a sufficient number of members representing workers on the committee to equitably represent groups of workers who have substantially different occupational health and safety concerns. The committee must have at least 4 members, with at least half representing the workers. Worker representatives are selected by the workers for a term of not less than one year (and may continue until their successors are selected or appointed) unless prescribed by a union agreement; employer representatives are assigned by the employer. If someone leaves the committee before the end of their term, we restart the selection process.

Each committee must have 2 co-chairpersons:
- worker co-chair is chosen by worker-members
- employer co-chair is chosen by employer members

Frequency of Meetings
Committee meetings must adhere to the requirements outlined in the OHS Act to be considered a valid meeting. Members must meet within 10 days after being established, and then once every quarter.

Health and safety meetings and functions are to be carried out during normal work hours. Employers can’t deduct wages for the time spent in committee meetings.

Meetings must meet quorum in order for the committee to make decisions.

Meeting Minutes
The Westward committee must record minutes of each meeting and keep the minutes on file with the committee and post a copy of the minutes at a location that is readily accessible to workers at the place of employment until all concerns recorded in the minutes are resolved.

Meeting minutes must be available for inspection by a committee member or OHS officer.

Dispute Resolution
If the committee fails after trying in good faith to reach a consensus about making recommendations to Westward, either co-chair of the committee has the power to make unilateral written recommendations to Westward.

Confidentiality
The committee individual members, or an HS representative, must not disclose a worker's personal health information or the personal information of an identifiable individual unless the disclosure is required by law.

Imminent Dangers
A representative may call a special meeting with an employer to deal with urgent concerns, imminent dangers to health or safety or investigations of accidents or dangerous occurrences.

The Benefits of a Successful Health and Safety Committee

- **Injuries decrease:** Time lost due to injuries is reduced. Associated costs such as overtime, retraining, and wages paid to other workers who stopped work or assisted after incidents are often avoided.
- **Occupational diseases prevented:** The acute effects of harmful chemicals — headache, dizziness, nausea, disorientation, poisoning, and skin problems — may be prevented. Long-term or chronic effects such as cancer, lung disease, or nerve damage may also be prevented if appropriate measures are taken to protect workers.
- **The morale of the workforce improves:** The committee draws attention to needs and improvements in health and safety. It provides each worker with a communication channel to ensure their concerns receive attention. Workers can see the results and know that the employer is genuinely interested in eliminating hazards. The work site becomes a safer, cleaner, more orderly, and more agreeable place to work.
- **Damage decreases:** There is generally little difference between the causes of an incident that damages material or equipment and the incident that damages a worker's body — both have costly consequences. WCB costs will rise.
- **Production stoppages are reduced:** Consider how much downtime is the result of equipment failure or poor work habits. Such stoppages could be reduced through the work of a successful health and safety committee.
- **Waste of material decreases:** Waste is often the result of poor work procedures that can be brought under control by increased awareness of health and safety.

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Attitudes of a Good Committee Member or Representative

- **Always be ready to listen to the concerns of other workers:** Just looking cannot identify many hazards. You need to be told about them by other workers. So always be ready to discuss their concerns and encourage their participation in all aspects of safety.
- **Be sure you use safe work practices yourself and obey all safety rules:** It is by your example, and that of supervisors, that people will believe good work habits are important.
- **Do not let anything pass that is unsafe:** If you choose to overlook any health and safety concern, you and the safety program will lose credibility. Always take action.
- **Do not give up on any unresolved concern:** However long and difficult the answer is, make sure it is found. Sometimes, when the concern is not a health and safety matter, the answer is “no action needed”. But where it involves poor work habits or procedures, make sure the crew is given an opportunity to get together and discuss the proper way of working. If the concern is difficult to identify or solve, make sure that efforts are continued until all facts have been obtained. Then try out ideas until a successful answer is found. If the matter still cannot be resolved, a member of the JSHC may refer the concern to an OHS officer.
- **Do not become involved in matters that are not health and safety concerns:** Sometimes a concern is expressed about labour-management matters or social events. Without being offensive, let the person know that you cannot take responsibility for matters that do not involve risks to health or the likelihood of injury. Concerns like overtime schedules, parking privileges, and who pays for safety shoes are not safety problems. They are management or labour-management matters.
- **Do not exceed your authority:** Remember your responsibility is to identify concerns and to enquire how and when they will be resolved. You are not there to order corrective action; you are there to recommend it. You are not there to take the blame for things that go uncorrected, or for incidents that may result. If you are to have any authority to interfere, such as shutting down an unsafe job, you must wait until the manager grants that authority and notifies the entire workforce of the powers you have been told to exercise on his behalf.
- **Do not interfere with equipment controls:** It is right to pick up tools or garbage that cause tripping or slipping hazards, but it is wrong to push switches, move hoists, or disconnect power tools that you think should not have been left the way you found them. Serious accidents can result from stopping, starting, or moving equipment. No matter whether you are a worker-member of the committee, or the manager himself, do not operate or interfere with other people's equipment. Find out who is in charge and tell them what is wrong. If the equipment is extremely dangerous, leave

someone to keep watch while you find the offending operator. The only time you should touch the controls of somebody else's equipment is a last-ditch attempt to avert a serious incident.

- **Get help in situations you don't understand:** Whenever a problem is beyond your understanding or confidence in handling, seek the help of other committee members or the co-chair. If a solution cannot be agreed upon, contact the local OHS representative.
- **Incident prevention:** Because most incidents are caused by defects in attitudes and equipment, a big part of your job will be finding ways to remove these defects.

Workers 3 Rights

Right to Know:
The right to know means that as a worker, you have the right to be informed by Westward of known or likely hazards in the workplace, and to be provided with the information, instructions, education, training, and supervision necessary to protect your health and safety. This information should be provided before the work begins.

For example, information can be in the form of product labels, safety data sheets, safe work procedures, or codes of practice. Instructions can be verbal or in writing, and be provided by a supervisor, another worker at the workplace, or external providers. Training can be workplace specific, delivered by someone in the workplace, online, or provided by outside agencies as long as it meets the needs of the employer and worker for your workplace.

Right to Participate:
This right allows workers to have input on the steps taken by Westward to ensure health and safety.

Workers can provide input on what would make the workplace safe by:

- participating as a member of the health and safety committee (if the workplace requires one).
- being a health and safety representative for the workplace when given the opportunity.
- reporting any concerns whenever you encounter a health and safety matter that could cause harm to your health and safety or the health and safety of your co-workers.
- making suggestions to the committee or Westward on how to make your workplace safer.

Right to Refuse:
The right to refuse is normally used when the first two rights fail to ensure your health and safety. Exercising this right is serious and should not be done lightly or as a routine method of solving workplace problems. However, workers should not be afraid to exercise their right to refuse when they believe that the work will endanger their health or safety, or that of others.

Health and Safety Performance Evaluation

The Safety Manual will be reviewed on an annual basis at a minimum. Specific policies and procedures currently in the Health and Safety Program can and will be reviewed if requested by any employee or government/legislative agency. Employees are encouraged to become actively involved in the review of the Program at any point.

Any minor changes in the program will be communicated during a safety meeting. These will be changed in print annually.

If the changes are encompassing and/or change the way a task is performed they will be changed in writing and introduced immediately or prior to the onset of the task.

Safety Recognition

Westward will work diligently to recognize personnel who exhibit outstanding performance on the job. To ensure that no worker is overlooked, Westward requests the assistance of all employees, sub-contractors and clients to notify the management either verbally or by written notice of a worker's accomplishment.

To recognize this outstanding performance management will be conducting spot checks and rewarding individuals or crews with our tokens of gratitude. The following may be rewarded:

- Near Miss reporting.
- Safety Improvement suggestions.
- Proper submission of forms (hazard ID, inspections) – on time and completed in full.
- 100% in a Personal Protective Equipment check.
- Client accolades from a project safely completed.

We want to encourage safety work practices all of the time. Workers will not know when a reward will come their way; managers are always looking for the safest workers. Rewards may come in the form of gift cards, Westward Merchandise, paid group lunches, etc.

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Section 2 HAZARD IDENTIFICATION AND CONTROL

Hazard Assessment

The fundamental principle of a Health and Safety Program is to reduce injury and disease to employees. One of the most important aspects of a health and safety program is hazard assessment. Hazard identification is crucial in the workplace.

At Westward there is a formal process in place to identify potential hazards. Hazards are identified by the use of job safety analysis (JSA), job hazard analysis (JHA), and workplace inspections. A risk assessment identifies things, situations, processes that may cause harm to property or people. After identification of the risks has occurred, an evaluation is completed concerning the likelihood and severity of the risk. Finally it is decided what measures should be in place to effectively prevent or control the harm from happening. The risk assessment process allows the hazard or reduces the level of its risk by adding precautions or control measures.

Risk assessments help to:

- create awareness of hazards and risks,
- identify who may be at risk (employees, subcontractors, cleaners, visitors, contractors, the public, etc),
- determine if existing control measures are adequate or if more should be done,
- prevent injuries or illnesses when done at the design or planning stage, and
- Prioritize hazards and control measures.

To be sure that all hazards are found:

- look at all aspects of the work,
- include non-routine activities such as maintenance, repair, or cleaning,
- look at accident / incident / near-miss records,
- include people who work "off-site" either at home, on other job sites, drivers, teleworkers, with clients, etc.,
- look at the way the work is organized or "done" (include experience and age of people doing the work, systems being used, etc),
- look at foreseeable unusual conditions (for example: possible impact on hazard control procedures that may be unavailable in an emergency situation, power outage, etc.),
- examine risks to visitors or the public,
- include an assessment of groups that may have a different level of risk such as young or inexperienced workers, persons with disabilities, or new or expectant mothers.

Westward believes the best method of preventing injury or loss is by knowing what the potential hazards are. This is done in two ways:

- The first is a review of all common workplace and field tasks and hazards. This is completed annually and is completed with all affected workers.
- The second is at the work site level to identify existing or potential hazards. This hazard assessment must be done before work begins at the work site and prior to the construction of a new work site. It must be repeated at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions, when a new work process is introduced, or when a work process or operation changes.

The effectiveness of the hazard prevention program is evaluated, and, if necessary, revised:

- at least every three years;
- whenever there is a change in conditions in respect of the hazards; and
- whenever new hazard information in respect of a hazard in the work place becomes available.

Training

Workers must understand the process to identify, reduce, and eliminate hazards within the workplace. This training will be on the job with workers with more experience leading to point out the more common hazards. Westward will provide health and safety education to each employee and address the following:

- How to properly fill out paperwork to ensure everyone is aware of the hazards and severity;
- When to stop work based on a severe hazard;
- The proper use and care of PPE;
- The hazard prevention program implemented to prevent hazards applicable to the employee, including the hazard identification and assessment methodology and the preventive measures taken by Westward;
- The nature of the work place and the hazards associated with it;
- The employee's duty to report; and
- An overview of the Act and Hazard Prevention Program Regulations.

Common Workplace Hazard Assessment

Westward will, in consultation with and with the participation of the policy committee, or, if there is no policy committee, the work place committee or the health and safety representative assess workplace hazards.

Westward has developed, implemented and continues to monitor a program for the prevention of hazards in the work place. This program was developed with the

participation of the work place committee and the health and safety representative, it is appropriate to the size of our work place and addresses the hazards we have. Our Hazard program includes the following components:

- an implementation plan;
- a hazard identification and assessment methodology;
- hazard identification and assessment;
- preventive measures;
- employee education; and
- a program evaluation.

All hazards in the work place have been identified and assessed taking into account:

- the nature of the hazard;
- the employees' level of exposure to the hazard;
- the frequency and duration of employees' exposure to the hazard;
- the effects, real or apprehended, of the exposure on the health and safety of employees;
- the preventive measures in place to address the hazard;
- any other relevant information.

The hazards are assessed using job hazard analysis' (JHA) that sets out the procedures, associated hazards (or what could go wrong) and control measures. The benefits of conducting a JSA are that previously undetected hazards may be identified, job knowledge and health and safety awareness of those participating will be increased, communication between workers and supervisors is improved, and acceptance of safe work procedures is promoted.

Site Specific Hazard Assessments (Daily Hazard Assessments)

All affected workers, sub-contractors, visitors, and clients on site must participate in the hazard assessment; if someone arrives late they must be informed of the information on the Hazard Assessment form. All daily hazard assessments must include (in writing) documentation of workers names, date, hazards, controls, severity and probability. If the work is deemed too hazardous it must be stopped immediately until proper controls can be put in place. Please fill out the Hazard Assessment form provided by Westward.

Site Specific (Daily) hazard assessments will be performed when:

- Work is conducted at temporary / mobile work locations.
- Workers are conducting activities at a work location not owned by Westward.
- When a new activity has been temporarily introduced to a work location.
- Before the job or task begins.

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- Repeated if changes are introduced.

A hazard at the workplace is any condition that has the potential to cause injury, illness or a loss. A hazard assessment conducted in the workplace is one of the most effective ways of ensuring a safe work environment. It is simply a careful look at what could harm workers or cause environmental damage at a workplace.

The benefits of conducting this written hazard assessment may include:

- Reducing the number and severity of incidents;
- Identifying the need for worker training;
- Identifying inadequate or missing procedures;
- Identifying the need for equipment maintenance;
- Reducing production losses and property damage; and
- Increasing worker involvement in health and safety issues.

Hazards that are identified at the worksite must be addressed immediately and mitigated. The supervisor must ensure that the hazard has been controlled to an acceptable level prior to the commencement or restart of the task. The written hazard assessment must indicate the hazard and all controls in place to mitigate the hazard; the person responsible to ensure the hazard stays mitigated must be specified.

Hazard Identification

During this process, individuals are able to identify potential hazards while evaluating equipment, machinery, work areas and activities. Once all potential hazards have been identified, they must be systematically prioritized with any imminent danger to workers being rectified prior to work commencing. Some examples of work site hazards include, but are not limited to:

- Slipping and tripping hazards;
- Fire from flammable substances;
- Oxygen deficient atmosphere;
- Harmful substances;
- Moving parts on machinery;
- Working at heights;
- Trenches/excavations;
- Pressure systems;
- Vehicles and equipment;
- Energized equipment (i.e., electricity, stored energy);
- Fumes;
- Lifting and handling loads;
- Noise;

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- Poor lighting;
- Chemical storage/handling;
- Noise exposure;
- Repetitive work; and
- Workplace violence.

Three commonly used methods to identify hazards are:

1. Physical inspections, both informal and planned;
2. Job Hazard Analysis (JHA) which includes breaking down workers actions into individual tasks, and identifying hazards involved with each task; and
3. Incident/accident investigation findings.

Assessing Hazards

Once these hazards and risks have been identified, individuals are better able to assess the potential risks and harm that could occur by the identified hazards. In assessing hazards it can be determined if adequate precautions have been taken and if more needs to be done (process changes need to be made).

At this stage hazards must be eliminated, isolated, or minimized. It may not always be practical to eliminate or isolate a hazard. In such cases these hazards must be minimized to an acceptable level through the development of Safe Work Practices, special training and personal protective equipment. Hazards that are identified at the worksite must be addressed immediately and mitigated.

Controlling the Hazard

If possible, all hazards must be eliminated. If the hazard cannot be eliminated then Engineering, Administrative and/or PPE controls must be put in place. Engineering controls are incorporated into the process itself, sometimes as part of the equipment. Substitution or isolation are both engineered methods. Administrative controls are used to minimize the exposure to a hazard by worker training and worker rotation. If the engineering or administrative controls do not achieve enough of a control then Westward must ensure workers affected by the hazard use the appropriate PPE. A combination of engineering, administrative and PPE controls may be the best method to achieve a greater level of worker safety.

Engineering Controls

Engineering controls should be used first, if possible; they provide the highest degree of control because they eliminate or control the hazard at its source. The use of engineering controls includes:

Elimination: Completely removing a hazardous job, tool, process, machine, or substance;

Substitution: Substituting or replacing one substance or process with another that would not pose a potential hazard;

Redesign: Hazards can often be "engineered out" through redesign of the work site, work processes, and jobs;

Isolation: Hazards can often be isolated through containment or enclosure;

Automation: Some processes can be automated or mechanized;

Barriers: Some hazards can be blocked or barricaded. The further the barrier keeps the hazard away from the workers, the more effective it is;

Absorption: Engineering controls that would absorb the hazard such as baffles that block or absorb noise; and

Dilution: Some hazards can be diluted or dissipated.

Administrative Controls

If engineering controls are not feasible or practical, then administrative controls are the next approach to controlling the hazard. The uses of administrative controls include, but are not limited to:

- Planning and communication;
- Safe Work Practices;
- Clients Safe Work Permits;
- Work/rest schedules limiting exposure to the hazard;
- Limiting hours of work;
- Scheduling hazardous work during times when exposure to workers is minimized;
- Monitors and alarm systems;
- Training;
- Safety meetings; and
- Posters and bulletins.

Personal Protective Equipment

Personal protective equipment (PPE) must always be used as a last resort in controlling hazards. PPE is less effective as a control as it does not eliminate the hazard. The PPE must be properly maintained and worn by workers.

Emergency Control of a Hazard

In the event of an emergency (dangerous to the safety or health of workers) only those workers competent in correcting the condition, and the minimum number of workers necessary to correct the condition may be exposed to the hazard. Every reasonable effort must be made to control the hazard while the condition is being corrected.

Hazard Reporting

Once the Hazard Assessment has been completed, it must be updated regularly and as hazards change. All workers (including subcontractors) must report any unsafe or harmful conditions including a list of potentially harmful acts and substances found during the inspections if they cannot be fixed immediately. If a hazard is noticed during the shift employees can report these hazards verbally to other Employees, but they must follow that verbal report with a written report once it is practical to do so. If the hazard is severe, work must be stopped and the hazards reassessed. Reports of hazards submitted to the Westward must always be written.

A hazard report must include the following:

- Description of the *hazard* and its location;
- Time and date first noticed;
- The risk it presents;
- Control measures needed; and
- Interim actions taken, if any.

All hazards reported will be immediately investigated and controlled. A worker will be assigned to correct the hazard and a specific time or date will be given for completion.

Employees can submit their written reports in any format they wish. Westward must receive all written reports within 24 hours or sooner if immediate action is necessary.

Written Job Hazard Analysis (JHA)

We have created a list of tasks that we perform; some of those tasks have been assessed as critical. A task may become critical based on frequency, severity, or probability. This list is at the end of the manual and will be updated as new operators, work processes, tasks, equipment, material, or products are introduced or modified. All tasks listed as critical will have a corresponding JHA completed with input of workers. The hazard identification process is used for routine and non-routine activities as well as new processes, changes in operation, products or services. If a site specific hazard assessment, inspection, or investigation identify a previously unrecognized hazard the JHA will be updated to reflect the changes.

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Hazard Priority Ranking
When a hazard assessment is started at Westward the hazards must first be identified, then classified or prioritized based on severity associated with the task or item. The first ranking estimates the severity of the problem if the potential accident/incident were to occur:

1. Imminent Danger (e.g. causing death, widespread occupational illness, loss of facilities)
2. Serious (e.g. severe injury, serious illness, property and equipment damage)
3. Minor (e.g. non-serious injury, illness, or damage)
4. Negligible/Ok (e.g. minor injury, requiring first aid or less)

The second ranking estimates the probability (think in terms of risk assessment) of the accident/incident occurring:

A. Probable – Likely to occur immediately or soon
B. Reasonably probable – likely to occur eventually
C. Remote – could occur at some point
D. Extremely remote – unlikely to occur

This manual contains the safe work practices and JHA's for the above job tasks. All employees must refer to the safe work practices prior to the commencement of a task listed above.

Any tasks that may arise that are deemed to have hazards will be evaluated and rated prior to a safe work practice being compiled.

Communication to Affected Workers, Bystanders and Visitors
Westward will appoint a representative at every worksite to control access to individuals and ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and the methods used to control or eliminate the hazards.

Review Process
All hazard assessments are reviewed periodically while on-site, then again by a supervisor. At Westward all hazard assessments are reviewed to ensure that a new hazard has not been created from the corrective measures put into place to prevent impact from another hazard.

All JHAs will be reviewed/revised as required by the following,

- when new operations, work processes, equipment, materials or products are introduced

- when operations work-related processes of equipment are modified
- when site specific hazard assessments, inspections, or investigations identify a previously unrecognized hazard
- annually by the Health and Safety Committee

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Inspections and Monitoring Worksites

Work site inspections must be made at the first visit to any new jobsite in order to prevent the development of unsafe working conditions. Inspections must be performed by competent workers. Any unsafe or harmful conditions including a list of potentially harmful substances found during these inspections should be reported and told to all workers and any future employees sent to the site or if possible, fixed immediately. The person receiving the report must investigate the reported unsafe condition or act and must ensure that any necessary corrective action is taken without delay. The information collected at a work site inspection, must be reported on your Hazard Assessment form and communicated to everyone who comes onto your location.

The nearest hospital to the worksite will be identified in case of an accident that requires hospital treatment.

Responsibilities
The senior manager is responsible for the overall operation of the inspection program (including monitoring the inspection process).

Supervisors are responsible for conducting formal inspections on job sites that they control (such as office, shop, or worksites) and for involving workers in such inspections. Responsibilities also include conducting ongoing informal inspections of areas where their crews are working.

Workers are responsible for participating and contributing to the Inspection Program.

President - Lee DeStephanis

June 26. 2024
Date

Overview of Inspections
Every work site contains hazards that must be identified and controlled to ensure worker safety. Through ongoing periodic work site inspections and work site conditions, work procedures will be monitored and improved upon where necessary.

Regular (monthly) inspections of the workplace and of work processes and procedures at the workplace are conducted to identify any risk to the safety or

health of any person at the workplace. If a risk is identified, Westward will correct any unsafe condition as soon as is reasonably practicable and, in the interim, take immediate steps to protect the safety and health of any person who may be at risk.

Westward requires members of the committee or a representative, where one exists, to inspect the place of employment at reasonable intervals determined by the committee or the representative and Westward. Employee involvement, at all levels, is required.

Work Site Inspections

Work site inspections must be made at the first visit to any new jobsite in order to prevent the development of unsafe working conditions. Inspections will cover all areas of Westward operations. Only by maintaining a constant frequency of inspections can hazards be identified and controlled before they become problems. Worksite inspections will be completed prior to the commencement of each job and weekly thereafter. This will allow Westward to make improvements to equipment, work procedures, training, and work site conditions, as necessary. The most senior person on site (the supervisor) will complete this inspection.

Work site inspections will focus on:

- Physical layout and conditions of the work site including location, terrain, season, and weather;
- Hazards associated with the materials handled;
- Condition of process equipment and tools;
- Condition of safety and personal protective equipment;
- Work practices and behaviour of people at the work site;
- Conformance and compliance issues; and
- Level and quality of supervision provided to workers.
- Slipping, tripping and falling hazards;
- Safety devices and monitoring systems;
- Lighting;
- Storage of hazardous products;
- Faulty or missing emergency response equipment;
- Improper or missing warning hazard notification signs;
- Faulty machinery, cables, tie-downs, etc.;
- Housekeeping activities;
- Inadequate or missing safety and personal protective equipment;
- Firefighting capability;
- Flammable, corrosive, or explosive materials, etc.

Vehicle Inspections

Commercial Vehicle
All commercial vehicles must be inspected pre & post trip, and on an ongoing basis. A vehicle with a major defect must not be driven on a highway. The defect must be reported immediately to Westward. Westward must repair the defect prior to the vehicle being operated.

A driver may continue to drive a commercial motor vehicle if the commercial motor vehicle or trailer drawn by it has a minor defect, but only if he or she has entered the defect on the daily inspection report.

Drivers must monitor the condition of the vehicle they are driving, if a defect is noted it must be documented on the inspection form.

Records of the inspections must be kept in the vehicle. The duplicate copies must be sent to Westward to ensure the defects are repaired (this must be done even when no defect has been identified). The original inspection records must be forwarded to Westward within 20 calendar days of the completion of the report. Westward retains these reports and a certification that the repairs have been made for a minimum of 6 months from the date the report was prepared.

Non- Commercial Vehicle
All non-commercial vehicles and employee owned vehicles must be inspected, using the Vehicle Inspection sheet, on a monthly basis.

Equipment Inspections
All equipment must be inspected at a frequency acceptable to the manufacturer.

Emergency and Fire Equipment Inspections
All Emergency and Fire Equipment Inspections must be inspected at a frequency acceptable to the manufacturer.

Office Inspections
The Safety Coordinator will complete a full office inspection the first week of every month. A review of the previous month's issues should be completed prior to the inspection. Any deficiencies must be corrected within the next month (serious issues should be dealt with immediately), and documented on next months inspection sheet.

Inspection Reports
Inspection reports will identify hazards and recommend appropriate control measures such as:

- Performing maintenance on equipment and vehicles;
- Marking hazards with signs, flags, lights, alarms, or barricades;
- Providing additional personal protective or other safety equipment to workers; and
- Informing workers of the hazards.

Wherever possible, hazards will be eliminated. If this is not possible, other control measures will be used such as developing specific operational procedures and/or wearing appropriate PPE.

Follow-Up Action

Deficiencies that have been noted in any inspection must be followed up by the Safety Coordinator. Any serious (high potential to cause injury) deficiencies must be repaired immediately.

Preventative Maintenance

It is critical to ensure that tools, equipment, personal protective equipment, vehicles, etc. are maintained to prevent costly downtime and ensure ongoing safety.

The maintenance program is designed to reduce overall operating costs associated with vehicles or equipment that is out-of-service. The maintenance program provides for continuous and regular inspections, maintenance and repair. The active maintenance schedule at Westward does not take precedence over any repairs or service prior to the service date.

Any equipment used during normal work operations should be maintained in safe running condition. If any equipment is obviously faulty (H_2S meter failed bump test, equipment will not turn on, etc.) they must be taken out of service immediately. All equipment must be kept maintained and be safe to perform its intended task, adequate strength for its purpose and free from obvious defects.

This Preventative Maintenance Program will be maintained and include:

- Adherence to applicable legislation, standards, and manufactures' specifications,
- Using the services of appropriately qualified personnel, and
- Scheduling and documentation of all maintenance work.

President - Lee DeStephanis

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An inventory of all machinery/ equipment used at Westward has been established and is kept current. When new machinery or equipment is acquired, it must be added to the inventory.

Defective Equipment
Defects observed in machinery or equipment must be reported to a supervisor. All defective equipment at Westward must be immediately removed to protect the health and safety of any worker who may be at risk until the defect is corrected by a competent person. This must be done as soon as is reasonably practicable. The employer is responsible for ensuring that all defective equipment is removed from the worksite.

A Westward worker who knows or has reason to believe that equipment under the workers control is not in a safe condition will immediately report the condition of the

equipment to the employer, and repair the equipment if the worker is authorized and competent to do so.

Safety Equipment
H_2S meters and 4 head monitors must be calibrated at an accredited facility every 6 months. Bump testing will be performed prior to each job; records of each bump test will be kept in the box with each monitor. Please ensure you submit documentation to the safety coordinator each time a unit you are in possession of is calibrated. Record the location of the bump test, date and any concerns.

Any required maintenance will be performed before the monitor is worn.

Tools and Equipment
Ensure all tools are not worn or show signs or excessive wear. Any equipment used during normal work operations should be maintained in safe running condition.

Rented/Third Party Equipment
Ensure regular inspections and/or calibrations have been made on any rented or third party equipment. Please submit these records to the Safety Coordinator.

Vehicle Maintenance
The benefits of a vehicle maintenance program include:

- *Reduced Maintenance Costs* -- Minor adjustments and repairs made during regularly scheduled service checks help prevent unnecessary and costly repairs.
- *Minimize Downtime* -- Preventive maintenance reduces interruptions to production caused by breakdowns.
- *Accident Prevention* **--** Proper vehicle maintenance can reduce accidents caused by faulty brakes, tires, steering, and other major components.
- *Improve Driver Morale* -- When vehicles are kept in top condition drivers are more likely to handle the equipment with care.
- *Customer Relations* -- Clean, well maintained vehicles enhance the company image as a safety minded entity.

The following schedule will be used as a guide:

Airfilter Check it every month. Replace it when it becomes dirty or as part of a tune -up. It is easy to reach, right under the big metal 'lid', in a carbureted engine; or in a rectangular box at the forward end of the air in a duct hose assembly.

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Battery	Extreme caution should be taken while handling a battery since it can produce explosive gases. It is advisable not to smoke, create a spark or light a match near a battery. Always wear protective glasses and gloves.
Belts	Inspect belts and hoses smoothly. Replace glazed, worn or frayed belts. Replace bulging, rotten or brittle hoses and tighten clamps. If a hose looks bad, or feels too soft or too hard, it should be replaced.
Brake Fluid	Check the brake fluid monthly. First wipe dirt from the brake master cylinder reservoir lid. Pry off the retainer clip and remove the lid or unscrew the plastic lid, depending on which type your vehicle has. If you need fluid, add the improved type and check for possible leaks throughout the system. Do not overfill.
Engine Oil	Check the oil after every fill up. Remove the dipstick, wipe it clean. Insert it fully and remove it again. If it is low, add oil. To maintain peak performance, the oil should be changed every 6,000 km or 3 months, whichever comes first. Replace the oil filter with every oil change.
Exhaust	Look underneath for loose or broken exhaust clamps and supports. Check for holes in muffler or pipes. Replace the rusted or damaged parts.
Hoses	Inspect the hoses and belts monthly. If a hose looks bad, or feels too soft or too hard, it should be replaced.
Lights	Make sure that all your lights are clean and working, including the brake lights, turn signals and emergency flashers. Keep spare bulbs and fuses in your vehicle.
Power Steering Fluid	Check the power steering fluid level once per month. Check it by removing the reservoir dipstick. If the level is down, add fluid and inspect the pump and hoses for leaks.
Shock Absorbers	Look for signs of oil seepage on shock absorbers, test shock action by bouncing the car up and down. The car should stop bouncing when you step back. Worn or leaking shocks should be replaced. Always replace shock absorbers in pairs.
Tires	Keep tires inflated to recommended pressure. Check for cuts, bulges and excessive tread wear. Uneven wear indicates tires are misaligned or out of balance.
Transmission Fluid	Check transmission fluid monthly with engine warm and running, and the parking brake on. Shift to drive, then to park. Remove dipstick, wipe dry, insert it and remove it again. Add the approved type fluid, if needed. Never overfill.
Washer Fluid	Keep the windshield washer fluid reservoir full. Use some of it to clean off the wiper blades.
Wiper Blades	Inspect the windscreen wiper blades whenever you clean your windshield. Do not wait until the rubber is worn or brittle to replace them. They should be replaced at least once per year, and more often if smearing occurs.

All work must be approved by management.

Qualifications

Workers performing maintenance work will have the skills, accreditation or certification necessary. Copies of their certification must be delivered to the Safety Coordinator before they begin work.

Record Keeping

Up-to-date records are an essential part of any maintenance program. Preventative maintenance performed on machinery or equipment must be documented and

retained for the life of the machinery or equipment. Copies of all records are to be kept at the head office.

Section 3 RULES AND WORK PROCEDURES

Safety Rules

The following company rules have been adopted by Westward and will be enforced for all workers.

1. No employee is expected to work in an unsafe manner or to perform an unsafe act. As well, no employee is expected to perform work that will result in harm to the environment.

2. No employee will engage in any improper activity or behavior at a workplace that might create or constitute a hazard to him or her or to any other person.

3. Workers, supervisors, and subcontractors will be disciplined for participating in improper activity or behaviors.

4. All work will be carried out in accordance with appropriate safe work practices and procedures.

5. Workers are not allowed to wear loose jewellery while working on site if there is a chance that it may get caught in equipment.

6. Any accident/incident and near misses must be reported to the Owner/Manager of Westward immediately. First Aid treatment is to be obtained promptly for any injury.

7. Appropriate personal protective equipment (PPE) must be worn as required.

8. Only tools that are in good repair, with guards and safety devices in place, will be used. Do not use equipment and tools that show significant wear. All equipment will be inspected prior to each use.

9. Employees must operate only the equipment that they are authorized and qualified to use.

10. No smoking on any leases. Smoking is permitted only in designated areas.

11. Employees must operate all vehicles in accordance with site rules & highway regulations.

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12. All employees must work within the limits of all applicable government acts, codes, and regulations such as Occupational Health & Safety, Worker's Compensation Board, and Fire Codes.

13. Respect others! It is imperative that we give the respect we would like to receive. Employees will not use offensive language, politically-incorrect jokes, name calling, etc. Allow others to give opinions, past experiences, and advise to help solve any problems that may arise.

Definition of Improper Activity or Behavior

The attempted or actual exercise by a worker towards another worker using physical force to cause injury, and including any threatening statement or behavior which gives the worker reasonable cause to believe he or she is at risk of injury. Horseplay, practical jokes, unnecessary running or jumping or similar conduct will not be tolerated in the workplace. The following will also be considered inappropriate and may result in discipline and/or dismissal:

Absence

1. absences without legitimate excuse,
2. chronic or repeated absenteeism, and;
3. repeated tardiness, without legitimate excuse.

Appearance

Inappropriate appearance includes failure to maintain appropriate personal appearance or dress. This includes not wearing the appropriate personal protective equipment.

Conduct

1. discourtesy toward others (e.g., failure to work harmoniously with fellow employees or serve the public with courtesy),
2. gambling while on duty,
3. hindering or limiting normal operations or interfering with another employee's work,
4. illegal conduct, conduct unbecoming to an employee, or conduct damaging to the public relations,
5. incompetency, neglect of duty, or unsatisfactory performance of assigned job duties,
6. insubordination (i.e., failure or refusal to comply with a supervisors instructions, unless the instructions are illegal or endangering,)
7. threatening or committing acts of intimidation or violence,.
8. refusal to obey the normal or emergency instructions of law enforcement officials or other proper authorities,
9. smoking in unauthorized areas,

10. sleeping on duty, and,
11. unlawful or unauthorized use, carrying, or possession of firearms, explosives, or other potentially dangerous weapons on property.

Property

1. carelessness, inattention to duty, or purposeful acts resulting in injury to property or person(s),
2. failure to maintain prescribed records,
3. concealing, falsifying, altering, misusing, or removing records, including electronic data records,
4. theft of property,
5. unauthorized use of vehicles or failure to possess a valid and current driver's license, if required as a job qualification and/or condition of employment,
6. direct or indirect use or misuse of property officially approved activities (including, but not limited to, employees, facilities, mail service, supplies, equipment, and computing and communication resources, including computers, networks, electronic mail services, electronic information sources, voice mail, telephone services, and other communication resources), and,
7. Misappropriation of property or the property of others.

Rules and Regulations

1. failure to follow prescribed rules and regulations, or violation of the policy and procedure,
2. discrimination on the basis of race, sex, age, religion, national origin, sexual orientation, citizenship, disability,
3. violation of safety rules or common safety practices,
4. taking an adverse personnel action against an employee in retaliation for disclosing alleged wrongful conduct to a public body, and,
5. falsification of résumé or application materials or omission of material factual information.

Substance Abuse

1. consuming alcoholic beverages or being under the influence of alcoholic beverages while on duty,
2. unlawfully manufacturing, selling, possessing, distributing, dispensing, using, or purchasing a controlled substance,
3. unlawfully conspiring, negotiating, or arranging to purchase, sell, possess, distribute, dispense, or use a controlled substance, and,
4. being under the influence of a controlled substance not authorized by a physician.

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Relevant Legislative Documents

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

A copy of the Occupational Health and Safety Act, Codes and Regulations are located in the office and are available for viewing during regular office hours. Also available are any standards or codes of practices adopted in the regulations that address work practices or procedures and that apply to the place of employment or to any work done there. A bulletin board is also used to post information on health and safety related information.

The following list of legislation that affects Westward to ensure compliance may include, but is not limited to:

Workers Compensation Legislation
Alberta Labour Code
Alberta Occupational Health and Safety Act
Alberta Occupational Health and Safety Code

- Part 2 Hazard Assessment, Elimination and Control
- Part 6 Cranes, Hoists and Lifting Devices
- Part 7 Emergency Preparedness and Response
- Part 8 Entrances, Walkways, Stairways and Ladders
- Part 9 Fall Protection
- Part 11 First Aid
- Part 12 General Safety Precautions
- Part 14 Lifting and Handling Loads
- Part 15 Managing the Control of Hazardous Energy
- Part 16 Noise Exposure
- Part 18 Personal Protective Equipment
- Part 21 Rigging
- Part 22 Safeguards
- Part 23 Scaffolds and Temporary Work Platforms
- Part 25 Tools, Equipment and Machinery
- Part 27 Violence
- Part 28 Working Alone
- Part 29 Workplace Hazardous Materials Information System (WHMIS)

Energy Resources and Conservations Board Legislation

***The safety information in this program does not take precedence over any applicable legislation.*

Workplace Hazardous Materials Information System (WHMIS) Act
Canadian Electrical Code
Provincial Transportation Act

Safe Work Practices

Safe Work Practices (SWP) have been developed for general knowledge on a topic. SWP's are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. These are located in the Safe Work Practices section.

Further information regarding a breakdown of tasks and hazards are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section.

Job Hazard Analysis (JHA) / Safe Work Procedures

Job Hazard Analysis (JHA) / Safe Work Procedures have been developed with the input of involved workers. They are the steps that need to be followed; they also include associated hazards and controls. Further general information is located in the Safe Work Practice (SWP) section.

These will be created for all tasks designated as critical and will be performed with affected workers. JHA's will be completed on an ongoing basis and reviewed prior to the tasks being performed. They are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section at the end of the manual.

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Section 4 TRAINING

Employee Training Requirements and Records

At Westward we believe that a well-trained team of workers will result in a safer workplace. Workers must have basic safety courses to satisfy the requirements of the law and our Clients. Westward may supplement required or desired training programs, please consult your supervisor for more information.

Westward will ensure that a worker is trained in all matters that are necessary to protect their health and safety when the worker begins work at a place of employment or is moved from one work activity or worksite to another that differs with respect to hazards, facilities or procedures. All Westward workers must have the proper combination of experience, knowledge, and education to perform the work required.

All training documents are kept on file and this is verified prior to each worker being sent to do a new task.

President - Lee DeStephanis

June 26. 2024
Date

Westward has an organizational chart and training matrix to address minimum training standards for all workers (roles). This matrix will address both education and work experience.

Orientation
All Employees will receive a Safety Orientation on their first day of employment and after a job transfer. This orientation will cover administrative concerns, safety policies and training, and Field Job Preparations. The workers immediate supervisor will conduct the orientation and sign off on the orientation upon completion.

All new workers have a chance to hear about the company, its values, and its requirements. During orientation Westward will assess the workers current training and create a plan to ensure that all workers become trained to do the work they were hired to do.

Training at Westward includes:

- Procedures in the event of a fire or other emergency;

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- The location of first aid facilities;
- Identification of prohibited or restricted areas;
- health and safety responsibilities, including those specified by legislation;
- reporting requirements for injuries, illnesses and substandard conditions;
- standards for personal protective equipment;
- duties of management and employees for imminently dangerous working conditions;
- existing and potential workplace hazards and the methods to be used to identify, assess and control them;
- Precautions to be taken for the protection of the worker from physical, chemical or biological hazards;
- Procedures, plans, policies and programs that are essential to the job they will perform;
- Any other matters that is necessary to ensure the health and safety of the worker while the worker is at work.

Workers are encouraged to ask questions throughout the orientation, and whenever necessary thereafter.

A Follow-Up Orientation will be performed approximately 6-8 weeks after the first orientation. Workers often develop questions within the first month or two; this follow-up orientation allows a designated time to discuss those questions.

Formal Training

All Employees will receive any required training specific to their employment roles. Westward will document any existing training obtained by employees and a photocopy will be obtained including licence to operate any equipment (including a drivers licence) required by the job. Training will be documented on our Training Records Form; Workers will be given 3-months and 1-month notifications of any upcoming expiry dates.

Supervisors / Managers

Supervisors and managers are representatives of Westward to our Clients, workers, and under OHS legislation. Our program increases the understanding of HSE management skills, legislative responsibility and compliance, and due diligence assurance. Supervisors and Managers are encouraged to take the following Courses:

- Leadership in Safety Excellence
- Standard First Aid
- Basic Program Development

Field Workers

Field Workers will receive training for their specific needs. The training may include, but is not limited to:

- First Aid and CPR
- WHMIS
- H_2S Alive
- Ground Disturbance
- Fall Protection
- Confined Space
- Lock Out Procedures
- ATV Safety
- Driver's Education
- Transportation of Dangerous Goods
- PST/CST Training
- Incipient Fire Fighting
- Personal Protective Equipment and Respiratory Protective Equipment
- Leadership in Safety Excellence
- Other

Administrative Staff

Administrative Staff will receive training for their specific needs. The training may include, but is not limited to:

- First Aid and CPR Certification
- Emergency Evacuation Procedures
- Fire Extinguisher

On the Job Training

A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Work that may endanger a worker must be completed by a worker who is competent to do the work, or by a worker who is working under the direct supervision of a worker who is competent to do the work. All workers including new or transferred workers must be trained in procedures until they are competent. Westward has a mentoring program whereby all new "green" workers must shadow and assist a competent worker until it is determined through on the job training, observation of ability, and experience that that worker is competent. The lead hand or supervisor will verify competence prior to allowing the worker to perform the task unsupervised. An experienced new worker must also follow our mentorship program. It is your responsibility to refuse to perform work that you are not competent to perform.

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The training process at Westward is hands on. The instructors or supervisors must demonstrate tasks before asking a new worker or student to perform the task while training.

Certain tasks at Westward have been placed on the Hazardous Job Inventory. Workers are only allowed to perform those Hazardous Jobs once they are deemed competent by a supervisor. The on the job training form must be filled out and the worker deemed competent prior to a worker performing a task that has been classed as a Hazardous Job without direct supervision.

On-Going Job Observations

Workers may be subject to On-Going Job Observations. These observations may be formal or informal. The purpose of these Observations is to promote open communication and productive feedback.

Site Specific Orientation and Training

Whenever a worker, contractor, client, inspector, landowner, regulator, etc is going to visit an active worksite they must be given an orientation. This orientation must include:

- A briefing of the work that is occurring on the site,
- An overview of the hazard assessment, and
- Personal Protective Equipment Requirements (A person who is not equipped with the proper PPE will NOT be allowed on site).

If the work being performed may have a significant risk the visitor must be asked to return at another time.

Training Records

All of the training listed above (orientations, formal training, observation records, etc) will be documented and kept in the Safety Office. A digital record is also kept and reviewed monthly; workers will be given 3-months and 1-month notifications of any upcoming expiry dates.

If experience is required to verify qualifications this will be documented by:

- contacting prior work references,
- job observations, and
- keeping track of on the job training at Westward.

The Safety Coordinator is responsible for entering all training completed onto the spreadsheet and reviewing the workers training requirements to ensure that they are qualified.

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All Safety Training records will be kept for a minimum of 5 years from the date of the training.

Competency Process & Checklist
Upon hiring, all new employees are evaluated on their skill set and a Competency Checklist is filled out by their direct supervisor(s). This is done through observation of the worker during regular workday tasks.

The Competency Checklist is reviewed by the direct supervisor(s) at the following intervals,

- after 90 days, and then
- every 6 months

In some cases, it will be necessary to review the competency of an employee when there is an operational change that requires it.

It is your responsibility to refuse to perform work that you are not trained in and competent to perform.

Section 5 COMMUNICATIONS

Safety Meeting Policy

Workers need to know what is expected of them. At Westward we expect that all of our workers will return home safely at the end of each job. This expectation is communicated to all workers.

Good communications between the management of Westward and its employees is essential to safe operations. Safety meetings provide the opportunity to inform, train, and assist employees in doing their work safely. They also allow workers, supervisors, and contractors to discuss and solve safety issues in a proactive manner.

While on site all Westward workers are required to participate in any safety meeting held by the client that may affect your work tasks.

Types of meetings and frequency:

TYPE OF MEETING	ATTENDEES	FREQUENCY
General Meeting	All available workers and supervisors, including the president.	Monthly
Pre-Job Meeting	All workers, subcontractors, and the clients (if available).	Prior to the start of a new job
Toolbox Safety Meeting	Everyone on site	Weekly on job sites

President - Lee DeStephanis

June 26. 2024
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General Meeting

General safety meetings must include the President and all available company personnel; these are held bi-annually. Meeting discussions will include, but are not limited to discussions including:

- Filling in forms properly and submitting them on time.
- Safety measures needed for work to proceed safely.
  - Standard work procedures.
  - Safety Rules.
  - Drug and Alcohol Policy.
  - Company policies.
- Recent incidents/accidents that have occurred at Westward and in the industry, to discover and discuss how similar accidents can be prevented in the future.
- Training programs.
- Emergency procedures.
- Safety issues raised by personnel.

The agenda will be prepared in advance of the General Meeting and posted in high traffic areas and/or emailed to participants.

It is the responsibility of the safety-meeting chairman to ensure that all attendees have been notified of the time and place of the meeting. It is the responsibility of all workers to attend and participate in these meetings. Should an employee be unavailable to attend a meeting, he/she must inform the meeting chairman. If possible, the meeting chairman can decide to reschedule the meeting to accommodate the maximum number of employees.

Meeting minutes will be taken during the meeting and distributed to all attendees and those who were unable to attend. The minutes will document all topics discussed and actions warranted. An Action Plan to follow up on any safety issues will be created and be assigned with a deadline.

In addition to General Safety Meetings all new Westward employees or contractors will be provided with a copy of this safety manual and receive a safety orientation. The minutes of the last General Meeting will be discussed during orientation.

Management encourages any suggestions about any issues that can improve the health and safety of the employees or the environment.

Pre-Job Meeting

Prior to the commencement of a new job a Pre-Job Meeting will be held. This meeting often encompasses more than just safety issues. Everyone involved in the

job should be included including workers, contractors, clients, and other companies working nearby. The following items may be discussed during a pre-job meeting:

- All hazards from the hazard assessment.
- Methods to communicate throughout the job, including tool box meetings, on-going communication, completion of new hazard assessment as hazards change, etc.
- Emergency Procedures including list of trained rescuers and first aid personnel, transportation plan, alarm, location of nearest medical facility, etc.
- A list of tasks to be performed by all contractors and trades on site. Allow the opportunity to address conflicting tasks.
- Approximate schedule of work.
- Work Procedures.
- Location of emergency facilities including first aid kits, fire extinguishers, eye wash stations.
- Review of written notice indicating:
  - The supervisors name;
  - The location of the emergency facilities provided by the contractor for the use of the employers workers or self-employed persons;
  - The means to contact the committee representative.

Tool Box Meetings

Tool Box Meetings are held weekly with all workers on site. These meetings allow the opportunity to discuss the work to be performed during the day, any safety concerns, and who will be on site. The Hazard Assessment is often updated, if needed during this meeting.

Safety must be a concern for all employees and subcontractors. Every opportunity should be utilized to discuss and provide feed-back on safety issues, whether it's done in a formal or non-formal manner.

Section 6 INCIDENT & ACCIDENT REPORTING AND INVESTIGATION

Incident: An undesired event that, under slightly different circumstances, could have resulted in personal harm, property damage, or loss (also referred to as near misses).

Accident: An undesired event that results in physical harm to a person or damage to property.

Work Refusal: Any time a worker refuses to carry out any work they reasonably think will put themselves, or others, in danger.

Illness: Any illness that is or likely is caused by the occupation.

Purpose

Incident and Accident reporting is very useful because it:

- Collects information you can use to calculate statistics and other information for tracking accident trends.
- Helps identify training need; problems with work procedures; and needs for personal protective, safety, and emergency equipment.
- Collects information necessary for completing investigation and insurance reports and complying with regulatory requirements.
- Identifies weaknesses in the safety management program.

Prevention

It is the goal of Westward to have an Incident or Accident free workplace. The use of Training, Hazard Assessments, Communication, Personal Protective Equipment, Emergency Planning, and Inspections will reduce the risk.

Reporting

Any Accident/Incident involving work refusal, acute injury, illness to personnel, loss of revenue, or damage to company property or personal property must be reported immediately by the workers to Westward Management. Every accident that causes or may cause the death of a worker or that requires a worker to be admitted to a hospital as an in-patient for a period of 24 hours or more must be investigated immediately. Immediate reporting is also required when a worker is aware of a condition that may cause a work-related incident.

The incident must be documented and forwarded to Westward within a reasonable time period (7 days maximum). All work-related injuries and illnesses are recorded in the First Aid Record.

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Any Near Misses that occur during company time must be reported by documentation to Westward Management.

A written report must be created that includes a description of the accident, any graphics photographs or other evidence that may assist in determining the cause or causes of the accident, an explanation of the cause or causes of the accident, the immediate corrective action taken, and any long-term action that will be taken to prevent the occurrence of a similar accident or the reasons for not taking action.

Senior Management will be informed all any incident that is classed above the first aid level or results in greater than $500 damage to property or environment, including all medical aids and vehicle, environmental, or property damage.

All injuries involving a doctors/hospital visit must be reported to WCB.

Investigation

A worker (Owner/Manager or a Supervisor) who is qualified and competent in investigation techniques must investigate all work refusals, Incidents or Accidents (including first aid, medical treatment, occupational illness, environmental, near miss, property loss, vehicle incident). Westward will provide training on the investigation techniques to be used during an incident investigation (if no qualified investigator is available, Westward will use a third party trained investigator). This worker will be knowledgeable of the type of work involved.

These investigations must be completed as soon as possible so all evidence can be preserved. Once an incident or accident has been investigated, the investigator must make a written report to be placed on file in the office. If the incident or accident still poses a hazard for employees, Management must ensure all employees are immediately informed of the hazard. If the incident, accident, or near miss does not pose a hazard for workers at the current time the Safety Committee, where existing, will discuss these investigations and each member or the supervisor will ensure that all workers are made aware of the situation.

The written incident investigation report will include an explanation of the contributing factors or root causes of the incident that were identified during the investigation.

Conducting Investigations

The person conducting the investigation should proceed with the following steps:

1. Take control of the scene.
2. Ensure that any injured persons are cared for.
3. Ensure that no further injury or damage occurs.

4. Examine equipment/materials involved.
5. Collect and safeguard any physical evidence.
6. Take photographs of the scene.
7. Interview people involved and witnesses and obtain written statements where appropriate.
8. Analyze all available information to determine cause(s).
9. Look for causes where “the system failed the worker”, not only for those where “the worker failed the system”.
10. Determine what corrective action will prevent recurrence.
11. Complete the report.
12. Provide Management and the Safety Committee with a copy of the report.
13. Assign corrective actions for further follow up.
14. Management and/or the Safety Committee must ensure all employees are made aware of the situation.

Investigation Kit Items

The person conducting the investigation should proceed with the investigation using the following items:

1. Caution Tape
2. Disposable Camera(s)
3. Flashlight
4. Extra Batteries
5. Investigation Reports
6. Incident Reports
7. WCB Reports
8. Lined Paper / Pens for Witness Statements
9. Ruler
10. Ziploc Baggies
11. Sanitized Containers with Lids

Provincial Reporting Requirements

Alberta

You must call in an injury or incident as soon as possible to OHS (call 780-415-8690 or 1-866-415-8690) if it:

- results in a death
- results in a worker admitted hospital
- a work-related serious illness or an illness that results or is likely to result in admittance to hospital
- involves an unplanned or uncontrolled explosion, fire or flood that causes or may cause a serious injury
- involves the collapse or upset of a crane, derrick or hoist
- involves the collapse or failure of any component of a building or structure

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- involves the exposure to radiation in excess of its limits in the OHS Code

WCB - In Alberta: 1-866-922-9221 or Across Canada: 1-800-661-9608
Workers – If you have been injured at work, it's important you report your injury as quickly as possible to WCB after reporting to your employer, if the treatment required is anything beyond first aid or if you missed time from work.
Employers – When one of your workers is injured on the job, you are required by law to report the injury to WCB within 72 hours.

If one of the above were to occur or if any other serious injury or any other accident that has the potential of causing serious injury to a person occurs at a work site, Westward will:

1. carry out an investigation into the circumstances surrounding the serious injury or accident,
2. prepare a report outlining the circumstances of the serious injury or accident and the corrective action, if any, undertaken to prevent a recurrence of the serious injury or accident, and
3. ensure that a copy of the report is readily available for inspection by an officer.

British Columbia
Westward will immediately notify the Board of the occurrence of any accident that

- resulted in serious injury to or the death of a worker,
- involved a major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system or excavation,
- involved the major release of a hazardous substance, or
- was an incident required by regulation to be reported.

A preliminary investigation report must be submitted within 48hrs, and a final report must be submitted within 30 days for specific incident. The reports must be submitted online through your WorksafeBC account.

Saskatchewan
Westward will immediately notify the Occupational Health and Safety Division as soon as is reasonably possible of every accident at a place of employment that:

- causes, or may cause the death of a worker,
- will require a worker to be admitted to a hospital for 72 hours or more,
- is a *Dangerous Occurrence*.

"*Dangerous occurrence*" means any occurrence that does not result in, but could (if the situation was different) cause the death of a worker or will require a worker to be admitted to a hospital as an in-patient for a period of 72 hours or more and includes:

- the structural failure or collapse of:
  - a structure, scaffold, temporary falsework or concrete formwork; or
  - all or any part of an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;
- the failure of a crane or hoist or the overturning of a crane or unit of powered mobile equipment;
- an accidental contact with an energized electrical conductor;
- the bursting of a grinding wheel;
- an uncontrolled spill or escape of a toxic, corrosive or explosive substance;
- a premature detonation or accidental detonation of explosives;
- the failure of an elevated or suspended platform; and
- the failure of an atmosphere-supplying respirator.

The notice must include:

- the name of each injured or deceased worker.
- the name of the employer of each injured worker or deceased worker.
- the date, time and location of the accident.
- the circumstances related to the accident.
- the apparent injuries; and
- the name, telephone and fax number of the employer or contractor, or person designated by the employer or contractor to be contacted for additional information.

In addition to reporting the incident, an employer or contractor shall provide a copy of the notice to each occupational health committee co-chairperson or the occupational health and safety representative.

A written report must be prepared and include a description of the dangerous occurrence, any graphics, photographs or other evidence that may assist in determining the cause or causes of the dangerous occurrence, the immediate corrective action taken, and any long-term action that will be taken to prevent the occurrence of a similar dangerous occurrence or the reasons for not taking action.

Collecting Statistics

Each month statistics are entered on a spreadsheet. The following statistics are collected using ALL workers (both office and field):

- Km Driven
- Vehicle Accidents
- Average Number of Employees
- Work Hours
- Lost Time Injuries
- Lost Work Days
- Restricted /Modified Work Cases
- Medical Aids
- First Aids
- Near Misses

Definitions

Employee - As used in this standard, any person engaged in activities for an employer from whom direct payment for services is received. This includes working owners and officers.

Exposure or Employee Hours - The total number of hours worked by all employees, including those in operating, production, maintenance, transportation, clerical, administrative, sales, and other activities.

Work Environment - The environment comprised by the physical location, equipment, materials processed or used, and the kinds of operations performed by an employee in the performance of his work, whether on or off an employer's premises.

First Aid - Any one time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not require medical care even though provided by a physician or registered professional personnel.

Medical Treatment - Any treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician.

Work-Related Case - Any occupational injury suffered by an employee that results from a work accident or from an exposure involving a single incident in the work environment. Any occupational illness caused by exposure to environment factors associated with employment.

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Occupational Injury - Any injuries, such as a cut, fracture, amputation etc., that results from a work accident or from an exposure involving a single incident in the work environment.

Occupational Illness - Any abnormal condition or disorder of any employee, other than on resulting from an occupational injury, caused by exposure to environmental factors associated with employment.

Recordable Case - Any work-related injury case requiring more than first aid, and all occupational illnesses. Recordable cases include:

- deaths, regardless of the time between the occupational injury or illness and death;
- all occupational illnesses;
- all occupational injuries resulting in any of the following:
  - lost workdays, either days away from work or days of restricted work activity;
  - medical treatment other than first aid;
  - loss of consciousness;
  - restriction of work or motion;
  - temporary or permanent transfer; or
  - termination of injured or ill employee.

NOTE: Any case that involves lost workdays must be recorded since it always involves one or more of the criteria for recordability.

Lost Workdays

Days Away From Work - Those workdays (consecutive or not) on which the employee would have worked but could not because of occupational injury or illness. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

Days or Restricted Work Activity - Those workdays (consecutive or not) on which, because of the occupational injury or illness, the employee was assigned to another job on a temporary basis, worked at a permanent job less than full time, or worked at a permanently assigned job but could not perform all duties normally connected with it. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employer would not have worked even though able to work.

Lost Workday Case - Any recordable case that results in lost workdays away from work or workdays of restricted activity.

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Days Away From Work - Any recordable case that results in one or more days away from work as defined in Lost Workdays - Days Away From Work.

Days of Restricted Work - Any recordable case that results in one or more days or restricted work as defined in Lost Workdays - Days of Restricted Work.

The following formulas can be used:

$$\text{Injury Frequency} = \frac{\text{no. of lost time injuries x 200000}}{\text{no. of work hours worked}}$$

$$\text{Injury Severity} = \frac{\text{no. of lost days x 200000}}{\text{no. of work hours worked}}$$

$$\text{Vehicle Incident Rate} = \frac{\text{vehicle incidents x 1,000,000}}{\text{Km Driven}}$$

A fatality accounts for 6000 lost work days or 48000 lost work hours.

Every calendar year statistics are reviewed and summarized on the statistics form. Results of the statistics are distributed to all workers.

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Section 7 EMERGENCY RESPONSE PROCEDURES

Westward has consulted with affected (all) workers in establishing this emergency response plan. When required, site-specific plans are developed with the assistance of everyone involved. This plan is re-evaluated annually, along with the rest of this manual to keep the information current. If a significant piece of information has been omitted, it will be posted in the lunchroom until the manual has been updated.

Westward has prepared the following emergency procedures (after consultation with the work place committee or the health and safety representative, if applicable):

- General Emergency
- Evacuation Procedures
- Potential or Actual Violence
- Lighting Failure
- Spill Clean Up and Re-Entry
- Natural Disasters: Severe Storms, Tornadoes, Lightening, Hail, etc.
- Overcome with H_2S
- Bear Awareness
- Rattlesnake Bite
- Frostbite and Freezing
- Vehicle Accident
- High Angle Rescue
- Trench Collapse
- Fire Prevention Plan
- Fatalities and Severe Injuries

Training

Westward trains all workers in the emergency response plan including fire prevention and emergency evacuation procedures during orientation. This training includes emergency response for our office, instructions on site specific plans, the procedures to be followed in the event of an emergency, and the location, use, and operation of fire protection and emergency equipment.

A plan of the building, showing the name, if any, and the address of the building, and the name and address of the owner of the building will be posted. For off-site locations, evacuation procedures and locations of emergency equipment should be identified and reviewed with workers prior to commencing work activities.

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At least once each year emergency drills are held to ensure awareness and effectiveness of emergency exit routes and procedures. Drills will be reviewed and documented.

Westward will designate workers and ensure that they are adequately instructed in firefighting procedures applicable to our work.

We are all not trained rescuers. It is always voluntary to take part in emergency rescue procedures. A rescue will only be performed when the safety of the rescuers is assured. If a worker is expected to be part of the "workplace response" to contain a fire or other emergency, then training and instruction is more detailed, and the limits for response is clearly defined taking into account available equipment and training.

Communication

It is essential that at least one person or vehicle on site be equipped with a cellular phone or radio to be used for communication with management, and also to enable personnel to call for assistance in the case of an emergency. Westward employees will be trained and respond to any alarm by evacuating.

During the initial pre-job and daily meetings workers are made aware of the potential emergencies. The level of emergency and qualifications of the worker determine what each person's role in an emergency is. Our workers have taken part in training including incipient fire fighting, H_2S or unknown contaminant rescue (involving a SCBA), first aid, confined space rescue, etc. It will be determined at the pre-job meeting who is trained and how a rescue will be handled and supervised.

If a person is unqualified (not trained) or not wanting to assist in a rescue they will be told (prior to the commencement of work) that they must leave the site and call for assistance. If all workers are trained in rescue, one member will be in charge of summoning backup assistance.

How to Conduct a Drill

Designate one or more people in your organization to coordinate your drill and have them follow the steps below:

Before the Drill

Before any drill, make sure that your employees are aware that you will be having a drill, that they understand what will take place during the drill and that they know the procedure(s) to be followed. You can notify workers just prior to the drill or well in advance to add the element of surprise.

A check of the alarm system regularly will ensure it is operational in the event of a real emergency. Ensure workers know how to use the system. Often a call to the alarm provider will allow the alarm system to be used in a drill (without a false alarm occurring).

Instructions on emergencies should be discussed with workers during orientation and regularly after that.

All emergency equipment including spill clean-up equipment, fire extinguishers, first aid equipment, etc must be inspected and in good condition.

During the Drill

1. Announce the start of the drill by using a public address system or having designated workers alert staff. Have someone time the drill.
2. Employees should act as though it is a real emergency is occurring. They should move as quickly as possible to the muster point or a safe place (such as inside room for a tornado). Be sure to use stairs to reach the lowest level of a building.
3. Once all employees have evacuated the workers should be counted to ensure all workers are where they are supposed to be.
4. The drill coordinator can announce that the emergency has passed and the drill is over. Employees can then return to work.

After the Drill

The drill coordinator should document any necessary changes in the evacuation procedure including muster point location, number of safe areas or muster points, functionality of alarm system and instructions, communication methods, method of knowing how many workers are present, etc. All deficiencies will be identified, and corresponding corrective actions will be identified and assigned to an appropriate Westward employee, with a completion date assigned. This will be recorded and followed up on by the safety coordinator.

All workers should be briefed on the drill either just after the drill or at the next safety meeting. Workers should give input on the success (or lack of) of the drill.

Procedures

The following steps must be taken following any **accident**. The order in which they are done can only be determined by the people who witness or arrive at the scene of the accident, and the prevailing conditions.

- Don't Panic
- The person encountering the accident should make a quick evaluation of the scene before disturbing anything or taking further actions.
- Determine if there are any hazards in the area that could harm themselves, other workers or cause further loss.
- Take immediate action to make the area safe.
- Call for assistance.
- Treat injured persons as soon as it can be safely done. Only move the victim if there is an imminent danger, such as fire, electrical hazards, or atmospheric contamination.
- Do not make any unnecessary changes to the scene of the accident. Record any changes that are made for accident investigation.
- Secure the surrounding area until authorities arrive.

Westward provides emergency equipment including cell phone, first aid kits, fire extinguisher, and a field safety kit (including 2 triangles). This equipment is located in all field vehicles; spare equipment is located in the storage room. The equipment for office is located in the kitchen and a shower is available for decontaminating, if needed.

When in the Westward office emergency facilities (hospitals, police, and fire services) are nearby and contacted by calling 911. All field projects begin with the determination of where emergency facilities are located and estimated time of response. A transportation plan is developed and communicated to all workers.

Employees involved in any emergency involving any injury or illness, or damage to vehicle or equipment are required to report the incident on our Accident/Incident Report Form.

Evacuation Procedures

An evacuation may be necessary in the event of a fire, earthquake, or chemical spill. The extent of evacuation may be different for different types of hazards. When an alarm is sounded all workers must leave the area and meet at the designated muster points. Prior to the onset of any job that is not at our facility safe areas must be chosen and shown to every worker and subcontractor on site. Accounting for all employees following an evacuation is critical. Confusion in the assembly areas can lead to delays in rescuing anyone trapped in the building, or unnecessary and dangerous search-and-rescue operations. To ensure the fastest, most accurate accounting of people, consider taking a head count after the evacuation.

It is always voluntary to take part in emergency rescue procedures. A rescue will only be performed when the safety of the rescuers is assured.

Training
During orientation and at regular meetings all workers are informed of the location muster (safe) areas and the safest routes to these areas.

Only workers who are competent and adequately trained in rescue will be permitted to perform rescues. Training for rescuers includes simulated rescue or evacuation exercises and regular retraining, appropriate to the type of rescue or evacuation being provided. At least one member of a rescue team must be a first aid attendant trained to immobilize an injured worker.

Personal Protective Equipment
A rescue worker must use and wear properly, the appropriate PPE specified in accordance with the training and instruction received. The use of PPE itself must not endanger the worker. Workers performing rescue or evacuation must wear personal protective clothing and equipment appropriate to the hazards likely to be encountered.

All Employees are responsible to maintain, clean, and inspect their own Personal Protective Equipment daily. Qualified workers must inspect ropes and associated equipment visually and physically after each use for rescue, evacuation, or training purposes. In addition, an Employee must not use any Personal Protective Equipment that is in a condition that makes it unable to perform the function for which it is designed.

If a defect is noticed the equipment must be immediately removed from service and replaced with equipment that is in acceptable condition. Personal protective Equipment maintenance records must be kept, including but not limited to:
- the name of manufacturer,
- the type of equipment,
- the date put into service,
- when and for what purpose the equipment has been used,
- the date of the last inspection and name of the inspecting person,
- any damage suffered, and
- the date and nature of any of maintenance.

Communications
Effective communications must be maintained between the workers engaged in rescue or evacuation and support persons.
Once the requirement for an evacuation is imminent workers must:
- notify other workers, including the first aid attendant, of the nature and location of the emergency,
- evacuate workers safely,
- check and confirm the safe evacuation of all workers,

- notify the fire department or other emergency responders, and
- notify adjacent workplaces or residences which may be affected if the risk of exposure to a substance extends beyond the workplace. Notification of the public must be in conformity with the requirements of other jurisdictions, including provincial and municipal agencies.

Potential or Actual Violence

There is a possibility of violence from a landowner, fellow driver, Client, co-worker, or a third party. In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. A decision will be made whether to report the incident to the police.

In case of a threat being made, leave the area at once and call 911 and report the incident. Also notify the office as soon as possible.

Lighting Failure

To work safely it is important to have the appropriate type and amount of light. Lights that are burnt out or flickering should be changed at the first available time.

Emergency lighting will be provided in places that are normally used during periods of darkness or that do not have an available source of natural light.

Work must only be performed when enough light is available. The work may need to be moved into an area that has more light, additional lighting brought in, or the work may be postponed until natural light can be utilized or additional lighting brought in.

Spill Clean Up and Re-Entry

If workers are required to control a release of a hazardous substance, to perform cleanup of a spill, or to carry out testing before re-entry, the following will be provided:

- adequate written safe work procedures,
- appropriate personal protective equipment which is readily available to workers and is adequately maintained, and
- material or equipment necessary for the control and disposal of the hazardous substance.

Natural Disasters: Severe Storms, Tornadoes, Lightening, Hail, etc.

In the event of a severe storm warning within the surrounding area:

1. Disconnect electrical equipment and appliances not required for emergency use.
2. Do not use the telephone except for an emergency or absolutely essential business.

3. Store drinking water in clean containers.
4. Avoid structures with wide roof spans (eg. shop, gymnasiums, etc).
5. Tornado warnings:
    a. Go to a basement if possible, or an interior hallway.
    b. Upper floors are unsafe. If there is no time to descend, go to a closet, a small room with strong walls, or an inside upper hallway.
    c. Do Not remain inside a vehicle. As a last resort, and if no ditch or ravine is nearby, crawl under the vehicle.
    d. If in open country and time permits, locate suitable shelter. If not, lie in the nearest ditch or ravine. Be alert for flash floods.

Overcome with H_2S

If a worker is overcome with H_2S, you must not go and rescue him without protecting yourself first by donning a breathing apparatus:

1. **EVACUATE**
   Get to a safe area immediately.
   Move upwind if release is downwind of you.
   Move crosswind if release is upwind of you.
   Move to higher ground if possible.

2. **ALARM**
   Call for help "Man Down", sound bell, horn, whistle or call for help by radio.

3. **ASSESS**
   Do a head count. Consider other hazards.

4. **PROTECT**
   Put on breathing apparatus before attempting rescue.

5. **RESCUE**
   Remove victim to a safe area.

6. **REVIVE**
   Apply CPR if necessary.

7. **MEDICAL AID**
   Arrange transport of casualty to medical aid. Provide information to Emergency Medical Services (EMS).

Bear Awareness

Bear Country

Many operations are moving into increasingly remote wilderness areas. This territory is prime bear habitat and the frequency of bear encounters is increasing dramatically. To avoid tragic results it is important to have a good understanding of bears and their behaviour.

Bears are wild animals with unpredictable behaviour patterns. All bears are potentially dangerous. When threatened or surprised they will defend themselves, their young and their territory. Bears are very strong, surprisingly agile and capable of inflicting serious injury in an attack.

In western Canadian wilderness areas there are both black and grizzly bear populations. Black bears adapt more readily to areas frequented by humans and are seen more often than grizzlies. The black bear is found in heavily wooded areas and dense brushland year-round. Grizzlies most often stay in the high country during the summer and early fall months, moving to the valley bottoms in late fall and spring. Although bears hibernate during the winter months, it is not uncommon to see a bear in mid-winter taking a short break from its den.

The normal diet of a bear will include roots, berries, grubs and other insects, and the occasional small mammal or fish when it's available. Bears will sometimes feed on carcasses of dead animals or take over kill from other predators. A keen sense of smell directs the bear to food sources, sometimes from great distances. Both species will venture into human environments if there is food readily available. The attached diagram provides descriptive characteristics of both species for identification purposes.

Safety Precautions
Practicing some basic precautions will aid immensely in avoiding encounters with bears. When you are working in a wilderness situation remember the following points:

1. ***Work with a team, and be loud*:** Whistle, talk, sing or carry a noisemaker such as a bell. Some crews carry compressed air horns about the size of a spray can and blow them at regular intervals to make their presence known. Most bears will leave the area if they are aware of your presence. Stay in open areas as much as possible and remain aware of what is happening around you. Do not wear headphones while listening to music - this will block out any warning noises, even the shouts of your companions.
2. ***Observe the wind direction:*** Be especially alert if you are traveling into the wind. The bear may not pick up your scent and be forewarned of your presence. If you are working in dense brush or near rushing water the bear may not hear your voices or a small noisemaker.

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3. ***Avoid dead animals and berry patches***: These are prime food sources for bears. Circling crows or ravens often indicates the presence of a carcass.
4. ***Be observant and watch for bear signs***: Fresh tracks, droppings and new diggings are all signs that a bear is in the area. If you see fresh bear signs, leave the area!
5. ***Leave your dog at home***: Dogs infuriate bears while posing no threat to them. Your pet may come running back to you for protection with an angry bear in hot pursuit!
6. ***Never approach a bear***, especially a cub. The mother is usually close and will attack if she thinks her cub is in any danger.

When camping overnight in a wilderness area you should take the following additional precautions:

1. ***Camp away from animal and walking trails and the sound of rushing water:*** in the backcountry, camp near large sparsely branched tress that you can climb if necessary.
2. ***Keep a clean campsite:*** Nothing attracts bears like odours from food and garbage. Do not leave food, garbage, coolers, utensils or cooking equipment around your site. Lock food away in a vehicle or hang it between two trees at least four metres off the ground. Avoid smelly foods and, if you go fishing at the end of the day, do not leave cleanings anywhere near your campsite. Garbage should be packed in airtight bags and taken with you when you leave. Do not bury garbage or food scraps; a bear can easily locate these and dig them up. Burning garbage is also not recommended.
3. ***Do not cook in or near your tent or trailer:*** The food odours left over are a strong attractant to bears. Never eat in or on top of your sleeping bag, and it is best to sleep in different clothing than those worn while cooking. When moving around at night, use a flashlight. Many animals feed at night and the light will warn them of your presence.
4. ***Avoid use of smelly cosmetics:*** Bears may be attracted to smelly cosmetics such as perfume or soaps. There is also some indication that bears may be attracted to women during their menstrual period. One recommended precaution is the use of tampons, which should be disposed of in an airtight plastic bag.

Bear Confrontations

Even though you follow all these precautions, you may still have an encounter with a bear. While there is no guaranteed method of dealing with a bear confrontation, some of the points that follow have proved useful:

1. ***Leave the area:*** if you see the bear from a distance take a wide detour or leave. If you cannot retreat, then wait for the bear to move from your path. Always leave the animal an escape route.
2. ***Stay calm:*** Acting in a calm and relaxed manner so as not to threaten the bear has proved most successful. Assess your situation and look for possible escape routes or safe trees.
3. ***Move slowly:*** Slowly back up, and speak to the bear in a soft monotone voice. Screaming or sudden movements may provoke an attack. Never throw anything at a bear and do not try to run away. Bears can run about the same speed as a racehorse and have very fast reflexes.
4. ***Monitor the bear for aggressive behaviour:*** The bear may snap its jaws and make a "woofing" sound. It may keep its head low and have its ears laid back. If the bear moves towards you consider this an aggressive act. Sometimes a bear will try to bluff its way out of a threatening situation by charging and then veering away at the last second. A bear that rears on its hind legs and waves its nose in the air is trying to identify you. Remain still and speak in low tones. If the bear does not display aggressive behaviour, continue talking to it and back away slowly. Remember - never run!
5. ***Look for a tree to climb:*** if the bear is behaving aggressively, back slowly towards the tree. Carefully remove your pack or jacket and set it on the ground to distract the bear. Climb as high into the tree as you can. Although adult grizzlies rarely climb trees a large one can easily reach over 4 metres. Stay in the tree until you are sure the bear has left the area, and then leave the area quickly. Be aware that black bears are good climbers and a tree might not afford an escape from them.

Bear Attacks

Most bear attacks occur when a bear is surprised - usually a mother with cubs or a bear protecting its food. There is no guaranteed life-saving method of surviving a bear attack; often things happen so fast that conscious thought is not possible. Each situation is unique. However, there are some general guidelines that have proven to be helpful in past attacks. There are some distinct differences in tactics, depending on the species of bear you are dealing with.

Grizzly Bear: playing dead and offering no resistance may be effective. Curl up in ball covering your face, neck and abdomen. Remain still until the bear leaves the area. This method requires a significant amount of courage but has resulted in successfully surviving an attack. Fighting back usually increases the intensity of the attack, although in rare cases it has caused the bear to leave.

Black Bear: playing dead does not work. Try to escape to a secure place or climb high into a tree. Remember a black bear may climb the tree after you.

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A last resort is to threaten the bear with any available object. This tactic has worked with some bears. Fighting back also resulted in black bears breaking off attacks.

Bear Repellents

Recently, a few commercially available bear repellents have appeared on the market. These use a compound called "cap-secum" as the active agent and come packaged in a compressed gas container about the size of a large spray can. Usually these hang from a holster on your belt and are employed by spraying the charge in the bears face, causing the bear great difficulty in breathing and seeing, allowing the victim time to escape.

Although they may sound promising, it should be noted that chemical bear repellents are experimental and by no means a proven technology. In reliability tests some brands failed to discharge almost 40% of the time. Interviews with several bear attack victims suggest that even if they had such a canister with them, they doubt whether they would have had time or presence of mind to use them.

Manufacturers claim ranges of up to 5 metres; however bear experts suggest that an 800-pound bear charging at full speed would close that difference in a half of a second. This, they say, probably means that even if the shot was successful your best scenario is still a very painful collision. The worst case, of course, is that this is an aggressive act towards the bear, and if you miss or are only partially successful, you will almost certainly provoke an attack. Bear experts are very concerned that people carrying these repellents will have a false sense of security and therefore actually increase their risk of a bear confrontation.

At best, repellents are a last resort. Used at very close range they may end a potentially fatal attack, but are not a substitute for taking the necessary precautions to avoid aggressive encounters with bears. Take care NEVER to spray into the wind, this will just blind you and allow the bear to take charge of the situation.

Bear Identification

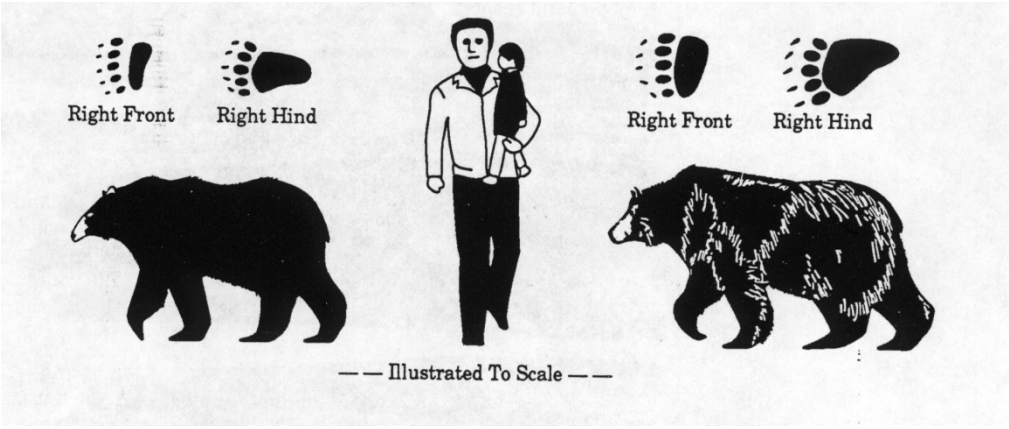
Black Bear (Ursus americanus Pallas)

Colour	Varies from pure black to cinnamon or blond – most are black with brownish muzzle, often a white patch below throat or across chest.
Height	About 90cm at the shoulder.
Length	About 1.5m.

Weight	Ranges from 57kg to >270kg – females are generally smaller than males.
Distinguishing Characteristics	Smallest member of the North American bear family. Usually has a straight facial profile with long nostrils. Feet are flat soled with short curved claws. Smaller than a grizzly and has a higher shoulder-rump line. Agile climber.

Grizzly Bear (Ursus arctos horribilis Ord)

Colour	Varies from black to blond – frequently with white tipped fur giving a grizzled appearance.
Height	A little over 1m at the shoulder – reaches 1.8 to 2m when standing on hind legs.
Weight	Averages about 200kg with some weighing up to 450kg – females are generally smaller than males.
Distinguishing Characteristics	Prominent humps over the shoulder formed by the muscles of the massive forelegs. Sloping back line. Dished or concave face. Long curved claws. A small grizzly is often hard to distinguish from a large black bear.



Rattlesnake Bite

In the event of an actual or probable bite from a rattlesnake, execute the following first aid measures without delay:

Snake: Make sure that the responsible snake or snakes have been appropriately and safely contained, and are out of danger of inflicting any additional bites.

Transportation: Immediately call for transportation. Meet the ambulance half way, only if driver has not been bitten.

Telephone: **911**

Victim: Keep the victim calm and reassured. Allow him or her to lie flat and avoid as much movement as possible. If possible, allow the bitten limb to rest at a level lower than the victim's heart. Move the victim into the vehicle if you cannot secure the area. Treat the victim as if they were in shock.

Identify the bite site, looking for fang marks.

Immediately wrap a large constricting band snugly about the bitten limb at a level just above the bite site, ie. between the bite site and the heart. The constricting band should be as tight as one might bind a sprained ankle, but not so tight as to constrict blood flow.

You should always seek help immediately after a snake bite. You should also back away from the snake quickly, for some people have been bitten multiple times because they failed to give the snake enough of the space it wants. Try to keep warm and calm. To help with the pain, you can use a compression bandage applied very lightly.

DO NOT remove the constricting band until the victim has reached the hospital and is receiving Anti-venom.

DO NOT cut or incise the bite site.

DO NOT apply ice to the bite site.

DO NOT attempt to suck out the venom with your mouth!!!

Sucking the venom will only cross the venom over to the saliva and rendering things worst for yourself or the person doing this procedure to the victim. Some of the symptoms are: swelling at the bite location, dizziness, nausea, numbness, difficulty in breathing, unconsciousness, and/or convulsions. If you're lucky, you'll have had a "dry" bite, which is when the snake bit you, but did not release any venom. As with any dangerous creatures, the best defence is to try to avoid the rattler all together.

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Frostbite and Freezing

During the winter, work may be conducted in very cold temperatures. In these circumstances, one must be aware of any exposed body parts, as these are susceptible to exposure causing freezing of bare skin and/or frostbite.

The First Aid Treatment for frostbite is to gradually restore heat and blood flow to the affected area(s). Applying an external heat source should only be done by qualified medical personnel. The frozen part should not be thawed unless it can remain in a warm atmosphere. In most cases of serious frostbite, it is safest if the body part remains frozen during transportation. If the frozen limb is thawed and then refrozen again, there is only a minute chance that the limb can be saved.

Treatment of Superficial Frostbite

- Apply firm, steady pressure with a warm hand. Blow hot breath on the spot, or hold frostbitten fingers motionless in the armpits.
- Do not apply snow, cold water, or direct heat to the affected parts.
- Do not rub or chafe the affected parts.
- Provide the injured person with shelter and general warmth.

Treatment of Deep Frostbite

- The injured person must be removed immediately by stretcher, if possible, to a medical facility.
- The injured person should be kept dry and protected from the cold to prevent worsening of the injury.
- If an injured person is required to walk on a frostbitten limb, chances of successful treatment are increased if the limb has not been thawed.
- No attempt should be made to thaw a frozen part unless the injured person can remain in a warm atmosphere and early medical aid can be provided.

Vehicle Incident Procedure

Our goal is to create driver awareness and reduce the potential for vehicular incidents. If an incident should occur:

1. STOP, ensure that everything possible is done for anyone who may be injured.
2. If the accident is of a serious nature, summon the police and in the meantime do not move the vehicle unless it is causing a hazard to other road users.
3. Do not make any admission of guilt or offer payment for the damage.
4. Make every effort to obtain the name and address, of at least one independent witness i.e., someone who was not involved with the accident.
5. Get information from the other driver:
    - Name and address, drivers licence number and province of issue
    - Registration mark of vehicle, make and type

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- Apparent injuries
- Apparent damage to vehicle or property
- Name and address of Insurance company including policy number

High Angle Rescue

If a worker falls and is suspended by a safety harness, implement the emergency response plan by following the steps below.

1. The site supervisor (or alternate foreperson) takes control of the situation.
2. The site supervisor sounds the emergency alarm—two long blasts from a horn. All workers in the immediate vicinity of the incident stop working. The site supervisor quickly evaluates the situation and identifies any further hazards that could arise.
3. The site supervisor or their designate goes to get help if workers are close by. If no one is close enough, the site supervisor calls for help.
4. The site supervisor calls 911 to notify local police, fire, and ambulance if required.
5. The crane operator remains on standby. The operator frees the hook and waits for further direction in case the designated rescue team must perform a basket rescue.
6. The site supervisor (or a worker assigned to the task) isolates the accident zone and its perimeter to limit further exposure.
7. The site supervisor (or a worker assigned to the task) moves all non-affected personnel to a safe zone or directs them to remain where they are.
8. The site supervisor enables radio silence on the jobsite, except for crisis communications from emergency responders. These communications are conducted on a pre-selected "emergency only" radio channel.
9. The site supervisor sends a designated worker to the site gate to meet the response team (police, medical, fire, etc.) and ensure that they have a safe access path to the accident scene.
10. The site supervisor assembles the emergency rescue team at the accident site as quickly as possible to determine the best rescue procedure for the situation.

Rescue Procedures

The following rescue procedures are ordered (A) through (D), with (A) being the preferred method and (D) being the method used when there is no other means of rescue.

A. Elevating Work Platform Rescue—If an elevating work platform (EWP) is available on site and the suspended worker can be reached by the platform, follow the procedure below.

1. Bring the EWP to the accident site and use it to reach the suspended worker.
2. Ensure that rescue workers are wearing full-body harnesses attached to appropriate anchors in the EWP.
3. Ensure that the EWP has sufficient load capacity for both the rescuer(s) and the victim.
4. If the victim is not conscious, two rescuers will be needed to safely handle the weight of the victim.
5. When the worker is safely on the EWP, reattach the lanyard to an appropriate anchor point on the EWP, if possible.
6. Lower the worker and arrange for treatment of the victim for suspension trauma and any other injuries.
7. Arrange for transport to nearest hospital.

B. Ladder Rescue—If an elevating work platform is not available, use ladders to rescue the fallen worker with the procedure outlined below.

1. Where possible, use ladder(s) to reach the victim.
2. Rig separate lifelines and fall arrest equipment for rescuers to use while assessing the victim from the ladder(s).
3. If victim is not conscious or cannot reliably help with their own rescue, at least two rescuers will be needed.
4. If victim is suspended from a lifeline, move them to an area that can be safely reached by the ladder(s), where possible.
5. If victim is suspended directly from their lanyard or from a lifeline, securely attach a separate lowering line to the victim's harness. Other rescuers will lower the victim while being guided by the rescuer on the ladder.
6. In no case should ladders be used to support the weight of more than one worker.
7. Once the victim has been brought to a safe location, administer First Aid and treat the person for suspension trauma and any other injuries.
8. Arrange for transport to nearest hospital.

C. Rescue from Work Area or Floor Below—If the fallen worker is suspended near a work area and can be safely reached from the area from which they fell or the floor below, use the following procedure:

1. Ensure that rescuers are protected against falling.
2. If possible, securely attach a second line to the workers' harnesses to assist in pulling them to a safe area. (Note: more than two strong workers will be needed to pull a victim upwards for rescue.)
3. Ensure that any slack in the retrieving lines is taken up to avoid slippage.
4. Once the victim has been brought to a safe location, administer First Aid and treat the person for suspension trauma and any other injuries.
5. Arrange for transport to the nearest hospital.

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D. **Basket Rescue**—If a worker has fallen and is suspended in an inaccessible area, you may need to perform a basket rescue. For basket rescues, the basket must be designed by a professional engineer and constructed in accordance with good manufacturing processes to withstand all loads to which it may be subjected. It must be kept on site at all times in an accessible location where it is clear of material or other equipment. Fit the rescue basket with a double connection to the crane and appropriate rigging for quick hookup by the crane operator.

Trench Collapse

Prevention is the best method to mitigate a trench collapse. Never enter a trench greater than 1.2m that is not protected with proper sloping, shoring, or a trench box. If a collapse were to occur:

- Stay calm.
- Take charge of the job site until a trained team, headed by an “incident commander” (the term often used by firefighters and rescue/recovery teams), arrives.
- Safely get everyone who is not trapped out of the trench. Account for all workers.
- Call 911 and/or the clients’ rescue team, and report the cave-in. If the construction site is difficult to find, designate someone to meet the trained rescuers at a readily identifiable address or landmark and direct them to the cave-in location.
- Keep everyone who is not directly involved in the rescue/recovery at least 30m from the trench or excavation.
- Shut down all equipment, except pumps that are being used to remove water in the immediate vicinity of the cave-in.
- Stop or reroute traffic that might create vibrations and cause a secondary cave-in.
- Do not attempt to dig the victim out with a backhoe or excavator. Such equipment may further injure the victim.

Fire Prevention Plan

A fire hazard area is one where any source of ignition may cause fire or explosion to occur. Signs are posted in conspicuous places at all entrances to fire hazard areas. The signs identify the area as a fire hazard area and prohibit the use of an open flame or other source of ignition in the area. For off-site locations, fire hazard areas should be identified and communicated to employees prior to commencing work activities. While in a fire hazard area workers cannot use any equipment, machinery, or tool of a type that may provide a source of ignition or smoke or use an open flame or other source of ignition.

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Prevention of fires is the best method to protect your workers from fire. The following guidelines must be adhered to:

- If the task requires your vehicle to enter a hazardous area ensure that it is equipped with a combustion air intake and exhaust discharge with a flame-arresting device.
- If an event, such as a gas leak or spill of a flammable product occurs all vehicles must be left parked, do not go back into your vehicle for any reason. Re-entering a vehicle may create a static charge that may cause an explosion.
- No smoking or open flames are allowed near areas where vapors may be present or on a well or plant site.
- Care must be taken when working around or with any flammable substance.

Any additional site-specific fire prevention methods will be written on the hazard inspection form. The fire plan must be updated to assess all of the hazards associated with the work being performed.

Use and Accessibility of Portable Fire Equipment

Portable Fire Equipment is located in accessible location in the shop, office, and on vehicles. Prior to the commencement of work any localized Portable Fire Equipment must be noted and checked to ensure it has been inspected within the last year. Many facilities have, in addition to the equipment supplied by Westward, sprinkler systems, hoses, additional Portable Fire Equipment, and alarm/shut down systems. All fire-fighting equipment must be maintained in accordance with the instructions of the manufacturer or the instructions of the authority having jurisdiction.

As soon as a fire is discovered:

- Sound the alarm and start to evacuate.
- Call the fire department.

These are important steps for everyone's safety, even if you feel the fire can be brought under control by using an extinguisher.

If you decide the fire is manageable…

- Test that the extinguisher works before you approach the fire.
- Protect yourself at all times.
- Take care. Speed is essential but it is more important to be cautious.
- Keep your back to the exit at all times and stand 2 to 2.4m (6 to 8 ft.) away from the fire.
- Follow the 4-step P-A-S-S procedure:
    1. Pull the pin (release the lock latch or press the punch lever).
    2. Aim the nozzle at the base of the fire.
    3. Squeeze or press the trigger.

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4. Sweep the extinguisher from side to side.

If the fire does not go out immediately or the extinguisher appears to be getting empty, leave the area at once. Back out with the lever squeezed and the nozzle pointed at your feet. This will help protect you until you are out of the area.

Safe Handling and Storage of Flammable Substances

Westward ensures that flammable substances that are stored or used at a work area will not be of a sufficient quantity to produce an explosive atmosphere. The following safety issues are ensured:

- A flammable substance is not stored within 30 meters of an underground shaft.
- A flammable substance is not stored in the immediate vicinity of the air intake of a ventilation supply system, an internal combustion engine, or a fired heater or furnace.
- Flammable substances are stored only in containers approved by CSA, NFPA, or ULC Standards.
- Static electricity must be controlled while the contents are being transferred from one metallic or conductive container to another by grounding or bonding.
- Tank Trucks must always be grounded prior to loading any flammable or potentially flammable substance. A few seconds could save your life!

Fire Emergency Response Procedure

1. Remain calm!
2. Ensure all personnel are accounted for and out of danger.
3. If a minor fire, activate extinguishing facilities. DO NOT jeopardize personnel safety.
4. If a major fire, call nearest fire department or fire control team.
5. Take reasonable steps to minimize loss of equipment. Disconnect electrical equipment if it is on fire and only if it is safe to do so.
6. Do not break windows.
7. Do not open a hot door (before opening a door, touch it near the top. If it is hot or if smoke is visible, do not open).
8. Do not attempt to save possessions.
9. Meet in the muster area (on site specific Emergency Response Plan), if at a jobsite meet at the designated muster point.
10. Do not return to the affected area until told to by the fire department.
11. If a minor fire occurred, conduct an investigation and develop an incident report.

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Fatalities and Severe Injuries

FATALITY - You are REQUIRED to contact the OH&S Director of Inspection of the time, place and nature of the injury or accident at 1-866-415-8690 as soon as possible after calling for ambulance and securing the safety of all others.

If a fatality or severe injury (involving hospitalization) occurs all work must be stopped immediately. Important facts and evidence may be lost if work recommences prior to the completion of an investigation.

Site Specific Emergency Preparedness & Response Process (EPR)

When required, site-specific plans must be developed with the assistance of everyone involved. This plan is re-evaluated annually, along with the rest of this manual to keep the information current. If a significant piece of information has been omitted, it will be posted in the lunchroom until the manual has been updated. This emergency plan addresses emergency conditions, which may arise from within the workplace and from adjacent workplaces. The plan was developed and implemented in consultation with the joint committee or the worker health and safety representative, where one exists.

All workers and subcontractors must be initially briefed on the general emergency response plan that deals with how to handle most common emergencies that are possible to impact oil and gas workers including:

- H_2S exposure
- Weather related hazards including tornado, cold/hot conditions, lightning, hail, natural disasters
- Animal incidents (bears, rattlesnakes, etc.)
- Chemical exposure
- Vehicle accident
- Liquid spills, etc.

The hazard/risk assessment process at Westward includes the development of a site-specific emergency response and preparedness plan and addresses the risks posed by hazardous substances from accidental release, fire or other such emergency. All site-specific hazards and potential emergencies are listed (general emergencies are reviewed in orientation and general safety meetings) and discussed. This policy is addressing items that are less common and more specific to the location, Client, and type of project. The client knows their facility the best; they should always be involved in pointing out any facility specific potential emergencies. All plan results are discussed with all workers on site (including subcontractors) and reviewed as hazards change.

The emergency preparedness and response plan should be used for routine and non-routine emergencies as well as changes in operation, and products or services

may create new emergency situations. These plans are reviewed prior to the commencement of any workday and when conditions warrant.

If the risk assessment shows a need for evacuation or rescue plan, appropriate written procedures must be developed and implemented. This is site specific and one trained-competent worker per shift must be assigned to coordinate their implementation.

All affected workers, visitors, and clients on site must participate in the hazard assessments and emergency preparedness and response process; this process is meant to identify all of the potential emergencies that could affect or be caused at the worksite. All Employees must report any unsafe or harmful conditions including a list of potentially harmful substances found during the inspections if they cannot be fixed immediately. If a hazard is noticed during the shift employees can report these hazards verbally to other Employees, but they must follow that verbal report with a written report once it is practical to do so. If the hazard is severe, work must be stopped and the hazards reassessed. Reports of hazards submitted to the Westward must always be written. All workers must understand the requirement to report when a situation may have the potential to become an emergency. Once discussed and assessed the plan is then reviewed with all employees and changed as requirements and processes change. Using the hazard assessment process and this site-specific emergency response plan we feel that more emergencies can be averted.

Media Relations

Any job has the potential to cause an impact that is substantial. If you are involved in an incident that brings the attention of the media do not divulge any of the details of the events. Westward will dispatch a person who is in upper management or a third party expert to deal with the media. We are not trying to cover anything up; we just want to ensure the information is released to the proper authorities and family members before it is on the news. Keep in mind that anything that has been said on camera may be used in court.

If the media should arrive before Westward senior management at the scene of the emergency, Westward contractors/employees are authorized to release the following statement:

“We are currently dealing with the emergency situation to ensure the safety of personnel, property, the public and the environment. A more comprehensive statement will be released as soon as more factual information has been determined”

***The safety information in this program does not take precedence over any applicable legislation.*

DO NOT SPECULATE ON THE CAUSE OF THE EMERGENCY OR PROVIDE THE MEDIA WITH ANY TYPE OF STATEMENT THAT IS “OFF THE RECORD”.

Before admitting the media onto Westward supervised property, the senior Westward representative must ensure that the area is absolutely safe and that admittance will not hamper emergency services or the investigation. The media will always be accompanied while on Westward supervised property.

Notification of Next Of Kin

Under no circumstances should the name of an accident victim or fatality be released without permission of the president of Westward and/or R.C.M.P. It is important that the employee’s next-of-kin be notified as soon as possible. The names, addresses and telephone numbers of next-of-kin are included in the employee/contractor’s personnel file.

Non-Fatal Injury

The next of kin should be notified in the following manner:

- If the injured person is capable, he/she should make the necessary telephone calls.

- If the injured person is not capable, a Westward supervisor or representative (with permission from a supervisor) should make the following statement.

“An accident has occurred at _____ and your (relationship), (full name) has been injured. He/she has been taken to (hospital) in _____ for treatment”

- The representative will have to exercise discretion when discussing the nature of the injury(s). They should be able to answer questions and make arrangements for necessary assistance. Transportation, baby-sitters or other assistance may be required by the next-of-kin.

Fatal Injury

This notification should only be made in person. The victim’s family clergy, doctor or friend should accompany the notifier. The R.C.M.P. will assist with the notification whenever possible and will ensure that the notification is complete.

Extreme discretion and tact is necessary. The next-of-kin will be in a state of shock and require support and assistance.

UNDER NO CIRCUMSTANCES IS THE NAME OF THE VICTIM TO BE RELEASED BEFORE THE NEXT-OF-KIN HAVE BEEN NOTIFIED.

Post Emergency Summary

In the event that any uncontrolled event (emergency) was to happen Westward is committed to understanding the root cause(s) of the incident and how the personnel on site including both workers and subcontractors handled the emergency. Any information gathered that might ensure a better response in the future will be shared with everyone involved.

It is often beneficial to ask everyone involved in emergency to seek medical attention or talk to his or her peers about the incident.

Site Specific Emergency Response Plan

Westward
203-280 Taiganova Crescent
Fort McMurray, AB T9K 0T4

Potential Emergencies (based on Hazard Assessment)	The following are identified potential emergencies: Fire Violence Tornado
Emergency Procedures	For each of the above Fire – Evacuate all employees and go to the nearest muster station. Violence – be calm, leave area, call police if necessary Tornado – go to small inside room and wait it out In the event of an emergency occurring within or affecting the work site, the supervisor onsite makes the following decisions and ensures the appropriate key steps are taken: • Initial response. • Calling for medical or rescue aid. • Transportation of injured worker, if injuries are not life threatening.
Location of Emergency Equipment	Emergency Equipment is located at: Fire Extinguisher – in all vehicles and at each exit at the company shop.

Workers Trained in the use of Emergency Equipment

Name	Equipment trained on
All Employees are informed of the procedure for fire extinguishers in the Company Orientation	Fire Extinguisher

Emergency Response Training Requirements

Type of Training	Frequency
Use of Fire Extinguishers	Orientation and Annually

Location and Use of Emergency Facilities	The nearest emergency Services are located: Fire Station – Ft McMurray Ambulance – Ft McMurray Police – Ft McMurray Hospital – Ft McMurray 911 will connect to emergency services.

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Fire Protection Requirements	Smoke/fire Detectors - throughout
Alarm and Emergency Communication Requirements	Workers all carry cell phones and an emergency contact list for emergency communication.
First Aid	First Aid Supplies are located at: First Aid Kit: in the shop by the fire door and in all vehicles Blankets: in the office Transportation for ill or injured workers is by co-worker or ambulance. List trained first aiders: Workers trained in first aid are posted in the company office / shop at Taiganova Industrial park.
Safety Data Sheets (SDS)	Safety Data Sheets are located: Located in the Main Shop/sites where chemicals may be used.
Procedures for Rescue and Evacuation	For evacuation and rescue: 1. Evacuate and direct all persons to the muster points located on the fence line outside of the office / shop 2. Assist ill or injured workers to evacuate the building. 3. Provide first aid, if required. 4. Call 911, if required for transportation by ambulance.
Designated Rescue and Evacuation Workers	The following workers are trained in Rescue and Evacuation: Workers are not required to perform rescue as part of their job, all workers have been trained to evacuate. We will follow requirements set out in the Orientation provided by each Client.

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Fire Response Plan

Westward
203-280 Taiganova Crescent
Fort McMurray, AB T9K 0T4

This plan is to be adhered to in the case of fire at the Westward Shop/Office.

Fire Extinguishers

Fire extinguishers are located at the Front and rear entrance of the building as well as the two entrances on the 2nd floor. Each fire extinguisher is to be inspected monthly and updated.

In the event of a Fire

All personnel are trained in the use of a fire extinguisher in orientation. All employees are trained to evacuate in the case of a fire.

In the event of Fire Detectors Activated

1. All work must stop immediately
2. All workers are to evacuate the building to the nearest muster point
3. Two employees have been designated as Fire sweepers in the case of evacuations.

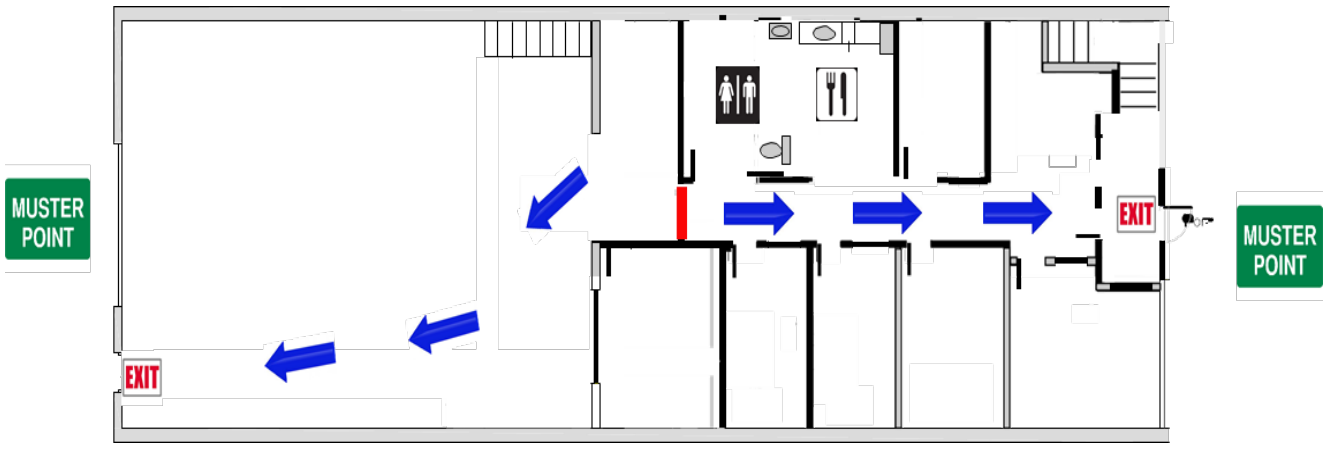
Fire Sweepers:

- **a.** First sweeper position is the front desk attendant.
  - **i.** When an evacuation occurs the front desk attendant will perform a walk-through of the offices on the office side of the fire door as well as the front stairs. While performing the sweep he/she will ensure that each office is empty of personnel and close each door behind them. After exiting the building the front sweeper will perform a headcount of personnel at the south muster point along the fence line of the parking lot.
- **b.** Second sweeper position is the back office attached to the shop.
  - **i.** The back sweeper will perform a walk-through of the upstairs of the building as well as the back shop. The back sweeper must clear these two areas of personnel, shut all doors behind him/her, and exit through the back entrance of the building. The back sweeper must perform a headcount of personnel at the North Muster point along the fence line behind the shop.

After leaving the building the back sweeper must contact the front sweeper to inform him/her that the building has been evacuated. Based on observations during

the Fire Sweep the two sweepers will determine if the Fire Department or emergency response team should be called. It is the front sweepers duty to place the call to emergency personnel stating the company address and the nature of the emergency.

Once the cause of the alarm has been determined and the site has been deemed safe by the elimination of hazards then workers may re-enter the building and work may resume.



Emergency Contact List

Westward
203-280 Taiganova Crescent
Fort McMurray, AB T9K 0T4

Phone: Lee DeStephanis Cell 780.881.3625

24 Hour Service Line 855-681-9378

Emergency Contacts

Ambulance		911
Fire Department		911
Police		911
Alberta		
Poison Centre	24 Hour Emergency	1-800-332-1414
Environmental Spills/Complaint	24 Hour Emergency	1-800-222-6514
Stars Emergency Link Centre	24 Hour Emergency	1-888-888-4567
Atco Electric	24 Hour Emergency	1-800-668-5506
Atco Gas	24 Hour Emergency	1-866-222-2068
OH&S (serious incident – fatality)	24 Hour Emergency	1-866-415-8690
British Columbia		
BC Air Ambulance	24 Hour Emergency	1-800-561-8011
BC Ambulance	24 Hour Emergency	1-800-461-9911
Forest Fire Reporting	24 Hour Emergency	1-800-663-5555
Oil and Gas Commission		1-888-330-8822
Poison Control	24 Hour Emergency	1-800-567-8911
WCB – BC		1-866-922-4357
Saskatchewan		
Poison Centre	24 Hour Emergency	1-306-655-1010
Environmental Spills/Complaint	24 Hour Emergency	1-800-667-7525
Stars Emergency Link Centre	24 Hour Emergency	1-888-888-4567
OHS Inspector		1-800-567-7233

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Section 8 POLICIES

The following Policies have been developed to ensure consistency in our organization. The following policies have been put in place at Westward:

- Alcohol and Drug Policy
- Behavior Based Safety Program
- Cellular Phone Use Policy
- Corporate Social Responsibility Policy
- Document Control Policy
- Drinking Water Policy
- Driving Policy
- Enforcement and Discipline Policy
- Environmental Policy
- Ergonomics Policy
- Fatigue Management Program
- Firearms Policy
- First Aid Policy – Alberta
- First Aid Policy – British Columbia
- Fit for Duty
- Initial Spill Response Policy
- Journey Management Policy
- Load Securement Policy
- Management of Change (MOC) Policy
- Modified/Return to Work Program
- New and Young Worker Policy
- Noise Policy
- Pandemic Virus/Flu Policy
- Personal Protective Equipment Policy
- Purchasing Policy
- Quality Policy
- Respiratory Protection Policy
- Right to Refuse Dangerous Work Policy
- Security Policy
- Subcontractor Management Policy (SMP)
- Supplier Code of Conduct Policy
- Thermal Exposure Policy
- Vehicle Usage Policy
- Violence Prevention in the Workplace Policy
- Waste Management Policy
- Working Alone Policy

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Alcohol and Drug Policy

Work places contain many hazards and it is essential that all employees and subcontractors maintain the highest possible state of alertness. It is for this reason an alcohol and drug policy was developed for Westward. Westward promotes the safety and dignity of its employees, the welfare of its employees and their families, protection of the environment, and the best interests of the owner, the upstream petroleum industry, and the public. This written Alcohol and Drug Policy is readily accessible to each individual at Westward. At orientation this policy is discussed and the expectations and enforcement guidelines given to each employee. The Drug and Alcohol program at Westward is successful because the workers are educated about the importance of the policy and the program offers self-help opportunities to employees who request it.

At Westward it is very important that all workers are treated fairly and with respect. Westward follows the Canadian legal framework (e.g., human rights, privacy, occupational health and safety) laws and protects the workers confidentiality.

The following is strictly prohibited while at a Westward and any of our Clients worksites:

- Any usage, possession, transportation, or offering or sale of illicit drugs, illicit drug paraphernalia, or unprescribed drugs for which a prescription is legally required in Canada or any product or device that could tamper with any sample for an alcohol or drug test
- Use, possession, distribution, offering, or sale of alcoholic beverages.
- Presence in the body of marijuana, illicit drugs, unprescribed drugs for which a prescription is legally required in Canada, or their metabolites.
- Having a blood alcohol concentration of .04% or higher. Workers performing A&D Safety-Sensitive work are prohibited from consuming any alcoholic beverages during their working hours, whether on or off company premises. These people are also required to limit their consumption prior to working hours so that there is no alcohol in the body while at work.
- Intentional misuse of prescribed medications, over-the-counter medications or other substances.
- Being unfit for work due to the use or after-effects of alcohol, marijuana, illicit drugs, unprescribed drugs for which a prescription is legally required in Canada or the intentional misuse of medications.
- Being unfit for work due to the effects of the legitimate use of prescription or over-the-counter medications. Workers have the responsibility to manage potential impairment during working hours due to the legitimate use of medications in consultation with their personal physician or pharmacist.

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There is a zero tolerance policy towards the use of alcohol and drugs at Westward.

Commitment and Education
During orientation Westward explains the alcohol and drug policy to the new employee and will discuss the safety risks associated with the use of alcohol and drugs.

The drug and alcohol policy requires ongoing commitment and attention from all individuals at Westward. Regular meetings with supervisors assigned to implement the policy shows the importance of the implementation of the policy and will ensure that the policy is successful. In our annual safety meeting the following drug and alcohol topics will be covered.

- Safety concerns and safety focus of the policy, including the safety risks associated with the use of alcohol and drugs;
- Key elements of the policy, particularly the alcohol and drug work rule, the alcohol and drug testing procedures, and the circumstances where the policy requires alcohol and drug testing;
- General education and awareness resources;
- Effects on employees that result from alcohol and drug use;
- Behaviours that a person demonstrates when under the influence of alcohol or drugs;
- Role of employee assistance services programs (EAP) and how to access these services;
- Second-chance principles of the policy that focus on treatment and reemployment;
- The company's duty to accommodate employees who fail alcohol or drug tests due to an actual or perceived disability (addiction).

Westward trains supervisors to be able to recognize impairment in the workplace and how to properly deal with an impairment situation.

Responsibilities
All levels of workers - employees, supervisors, owners, and subcontractors must take responsibility for the successful implementation of this alcohol and drug policy.

Owners, Employers and Subcontractors Responsibilities:

- Provide a safe workplace;
- Provide programs that emphasize awareness, education, and training with respect to the use of alcohol and drugs;
- Train and educate supervisors to be able to recognize impairment in the workplace, as well as how to properly deal with an impairment situation.

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This includes recognizing the signs and symptoms of impairment and the procedures to follow when an employee is suspected of being impaired or having a substance abuse problem.

- Ensure their company alcohol and drug policy supports other performance management systems;
- Ensure effective employee assistance services are available to workers;
- Assist workers in obtaining confidential assessment, counselling, referral, and treatment;
- Actively support and encourage treatment programs and re-employment opportunities where applicable;
- Provide supervisory training and awareness in dealing with the use of alcohol and drugs in the workplace;
- Ensure that all employees understand the existence and content of the company's policy as part of employee orientations to that company.
- Ensure alcohol and drug testing is performed according to the standards set out in the Alcohol and Drug Policy / Canadian Model;
- Identify safety-sensitive positions within their organizations.

Supervisors Responsibilities:

- Be knowledgeable about their company alcohol and drug policy and applicable procedures;
- Ensure they understand and comply with their company alcohol and drug policy as part of their responsibility to perform their work-related activities in an effective and safe manner;
- Be knowledgeable about the use of alcohol and drugs and be able to recognize behaviours and other indicators of the use of alcohol and drugs;
- Take action on performance deviations of employees;
- Take action on reported or suspected alcohol or drug use by employees.

Employees Responsibilities:

- Take responsibility to ensure safety and the safety of other workers;
- Ensure they understand and comply with this alcohol and drug policy as part of their obligation to perform work activities in a safe manner;
- Use prescription and non-prescription drugs responsibly, be aware of potential side effects and notify their supervisor of any potential unsafe side effects where applicable;
- Encourage their peers and co-workers to seek help when there is a breach or potential breach of policy.

Prohibitions and Testing

The use of drugs and alcohol will adversely affect the ability of a person to work in a safe manner; it decreases competency to a level that is unacceptable. The Westward drug and alcohol policy addresses the increased risks associated with the use of alcohol and drugs and provides understandable and predictable responses when an employee's conduct jeopardizes the safety of the workplace. Drug and Alcohol testing includes both screening and confirmation tests consistent with recognized industry standards (Canadian Model for Providing a Safe Workplace – A best practice guide from the Construction Owners Association of Alberta and Energy Safety Canada).

All Westward employees will not:

While the employee's ability to safely perform his or her duties is adversely affected because of the use of a prescription or non-prescription drugs:

- Refuse to comply with a request made by a representative of the company;
- Refuse to comply with a request to submit to an alcohol or drug test;
- Tamper with a sample for an alcohol or drug test.

While on company property or at a company worksite use:

- Alcohol, or
- Drugs other than those permitted (prescription-prescribed by a doctor), or
- Any product or device that could tamper with any sample for an alcohol or drug test;

Report to work or work:

- With an alcohol level equal to or in excess of 0.04 grams per 210 liters of breath. If the screening test reveals an alcohol level less than 0.020 grams per 210 liters of breath confirmation testing will not be required. If the screening test is greater than 0.020 grams per 210 liters of breath confirmation testing will be required using an evidential breath alcohol device.
- With a drug level equal to or in excess of the concentrations set out below (for both urine and oral fluids) of the drugs where a medical review officer has verified the results as a positive test result (e.g. no legitimate medical explanation).
- While the employee's ability to safely perform his or her duties is adversely affected because of the use of alcohol

and/or drugs, whether prescription drugs or non-prescription drugs, lawful or unlawful.

Drugs or classes of drugs	Screening concentration* equal to or in excess of ng/mL	Confirmation concentration* equal to or in excess of ng/mL
Marijuana metabolites	50	15
Cocaine metabolites	150	100
Opioids	--	--
- Codeine	2000	2000
- Morphine	2000	2000
- Oxycodone	100	100
- Oxymorphone	100	100
- Hydrocodone	300	100
- Hydromorphone	300	100
6-Acetylmorphine	10	10
Phencyclidine (PCP)	25	25
Amphetamines	500	--
- Amphetamines	--	250
- Methamphetamines	--	250
- MDMA	500	250
- MDA	--	250

* in urine samples

Drugs or classes of drugs	Screening concentration** equal to or in excess of ng/mL	Confirmation concentration** equal to or in excess of ng/mL
Marijuana (THC)	4	2
Cocaine metabolites	20	--
- Cocaine or Benzoylecgonine	--	8
Opioids	40	--
- Codeine	--	40
- Morphine	--	40
- Oxycodone	--	40
- Oxymorphone	--	40
- Hydrocodone	--	40
- Hydromorphone	--	40
6-Acetylmorphine	--	4
Phencyclidine (PCP)	10	10
Amphetamines	50	--
- Amphetamines	--	50
- Methamphetamines	--	50
- MDMA	--	50
- MDA	--	50

** in oral fluid samples

A Certified Laboratory Analysis of urine or oral fluids will be conducted for most testing. Employers must retain a laboratory to conduct oral fluid testing. Oral fluid

testing is permitted for post-incident testing, reasonable cause and random testing. Oral fluid testing is not permitted for site access or discipline purposes.

For screening purposes, a laboratory certified by the United States Department of Health and Human Services is permitted to test samples.

If a test is requested due to reasonable grounds or post incident Westward may use a Point of Collection Tests (POCT) device as one of a number of options for assessing the risk of having the employee return to work. A POCT device used for this purpose must have Health Canada approval, must be intended for urine assessment only, and must be calibrated to the extent possible with the urine cut-off levels. Only collection personnel trained to U.S. DOT standards shall administer the POCT. Such collection personnel must comply with standard operating procedures that must, at a minimum, address chain of custody and quality control.

When using a POCT, if the initial results are below the screening concentration results no further testing is required and the worker may resume his work tasks. If the initial screening results exceed those listed above the lab will complete a confirmatory test using approved mass spectrometry techniques. If the worker's concentrations exceed the confirmation concentrations they will be required to meet with the Medical Review Officer to discuss the results (certain medicines may impact results). The worker may ask to have the testing redone at their own expense (within 72 hours of the original test). The Medical Review Office (MRO) is a licensed physician, currently certified with the American Association of Medical Review Officers or Medical Review Officer Certification Council, with knowledge of substance abuse disorders and the ability to evaluate an employee's test results, who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.

Random Testing
Westward may perform random alcohol and drug testing of employees in safety-sensitive positions, if random testing is going to begin all affected employees will receive written notice of the implementation of random alcohol and drug testing at least 30 days prior to implementation of that program at the worksite. Random testing may be part of our contractual obligations with our Client.

Pre-Access Testing
Workers may be required to be alcohol and drug tested prior to beginning work at our Clients sites. All workers are notified and have signed off on this potential requirement during orientation or at least 30 days prior to Pre-Access Testing taking place. If a worker has been absent 90 calendar days (or more) they may be

required to be retested. Pre-Access testing may be part of our contractual obligations with our Client.

Testing for Cause
If a worker's ability appears to be adversely affected because of the likely use of alcohol or drugs (prescription or non-prescription) Westward will not allow the worker to continue working and will send the worker for applicable alcohol and drug testing. Reasonable cause testing will be conducted as soon as reasonably practicable once the determination has been made that reasonable cause exists. Where a test occurs more than four hours from the time the decision was made to test, Westward may be required to provide a valid reason for the delay to our Clients. The affected worker must be supervised and escorted to the laboratory for testing.

Post Incident Testing
Workers are subject to testing for alcohol and specified drugs after any significant incident or near miss has occurred. The primary purpose of this type of testing is to determine whether substance use was a possible contributing factor in an incident. Testing will be conducted after all significant incidents unless there is clear evidence (for example, obvious structural failure) that the acts or omissions of the worker could not have been a potential contributing factor. Testing may also be required, for near misses or less serious incidents if they are considered to have had significant potential for more serious consequences. Because post-incident testing is an investigative procedure, testing is required even in the absence of direct evidence or suspicion of alcohol or drug misuse.

Testing must be conducted as soon as reasonably practicable following an incident. Where a test occurs more than four hours from the time of the incident, Westward may be required to provide a valid reason for the delay to our Clients. The affected worker must be supervised and escorted to the laboratory for testing. It is recognized that it may not be possible to test an individual after an incident which renders him or her incapable of giving informed consent.

Re-Qualification Testing
At Westward workers may be periodically re-tested for safety sensitive positions to verify continued compliance. It is suggested that re-testing occur within 36 months from the date of the employee's last negative test or the date of the alcohol and drug policy implementation.

Return-to-Duty and Follow-up Testing
An employee who has tested positive and is returning to work after an assessment, must successfully pass a drug and/or alcohol test before returning to duty. A

Substance Abuse Expert may determine the need for and frequency of follow-up testing.

Confidentiality for Alcohol and Drug Testing Results
In order to preserve the confidentiality of test results, Westward will not disclose the test results to any person other than a person who needs to know the test results to discharge an obligation under the alcohol and drug policy. The worker who was tested will receive a written report with the test results; this report is confidential.

Analytical Methods
The collection site person must establish the identity of the donor. Photo identification is preferable (identification of the worker by a company representative who holds a supervisory position is acceptable).

Alcohol Testing
If the worker appears affected by alcohol, that worker will be required to give a sample by breath or saliva; this is considered an alcohol test. The employee being tested is directed (and transported if necessary) to a collection site for testing, or a breath alcohol technician (BAT) will attend the worksite to administer the test.

Drug Testing-Laboratory Based Testing
If the worker appears affected by drugs, that worker will be required to give a urine specimen sample; this is considered a drug test. The employee being tested will be directed (and transported if necessary) to a collection site, or a collection site person will attend the worksite. The worker must remove coveralls, jacket, coat, hat, or any other outer clothing and leave these garments and any briefcase or purse with the collection site person. Also remove any items from his or her pockets and allow the collection site person to inspect them to determine that no items are present which could be used to adulterate a specimen. The employee must give up possession of any item that could be used to adulterate a specimen to the collection site person until the donor has completed the testing process.

The collection site person must understand and abide by the quality control procedures to ensure the accuracy and reliability of the results.

The report to Westward will include whether the test results are negative or positive, as well as if tests that have been tampered with or otherwise invalidated.

If the worker has an acceptable medical explanation that could contribute to a false positive that will be discussed, and the results amended if confirmed by a medical professional.

Safety Sensitive Work Activities:
At Westward many of our field positions are considered Safety Sensitive. An assessment of each individual position is completed to determine if they are Safety Sensitive or not; workers are informed of this at hire or after a position change. A safety sensitive position means a position in which the worker has a key or direct role in an operation where if actions or decisions are not carried out properly it could result in a serious incident affecting the health or safety of employees, contractors, customers, the public, and/or the environment or an inappropriate response or failure to respond to an emergency or operational situation. Workers who are required to temporarily provide relief in a safety-sensitive position and leaders who directly supervise safety-sensitive positions and who may perform the same duties or exercise the same responsibilities are deemed to hold safety-sensitive positions as well. Safety Sensitive workers include all supervisors and workers who perform the following:

- Involvement in the operations, control, maintenance of equipment and or construction of site facilities for the production, processing or transportation of hazardous materials, or
- Involvement in activities at construction project sites for new or expanded facilities, or
- Involvement in the operation, control and / or maintenance or equipment for the drilling or servicing of an Oil and Gas Well, or
- The transport of workers via ground or air transport.

You will be informed during orientation or upon position change whether your position is considered Safety Sensitive.

Discipline
Westward may discipline an employee who fails to comply with the drug and alcohol policy. Discipline may include a variety of reasonable measures, up to and including termination for cause. Determination of the appropriate disciplinary measure will depend on the facts of each case, including the nature of the violation, the existence of prior violations, the response to prior corrective programs, and the seriousness of the violation.

If there is reasonable suspicion to believe an employee is under the influence immediate action must be taken. Testing will be conducted when an individual reports to work in an unfit condition; the individual will not perform any Safety Sensitive task until confirmation is obtained of the worker being fit for duty.

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Any employee suspected of substance abuse will be reported to Westward Management. If substance abuse is confirmed by a Substance Abuse Expert (SAE) or the employee is deemed unfit to work safely and effectively, the employee will be removed from the job and subject to the following measures by the management:

1. Suspension from work and workplace without pay for a minimum of 30 days until a return to work solution is determined and enacted.
2. Assistance to find professional help for drug and alcohol abuse will be offered.
3. A letter verifying that professional help was received must be submitted to Westward management before consideration is given to return to work.
4. Refusal to accept professional help may result in dismissal.
5. Any repeat offence WILL result in immediate dismissal for cause, subject to the company's right to intervene in instances where management deems special circumstances to exist.

Assistance is available for employees who struggle with addiction (without any resulting discipline). Once an employee comes to a supervisor with the request for assistance a package including the following will be provided:

- the resources and contact information available (including Employee Assistance Programs or Government sponsored Addiction & Substance Abuse program),
- the employee's responsibilities,
- and rules for discipline.

Westward will do it's best to ensure that after workers get the help they need that they have a position to go back to.

Record Keeping

Westward will keep records of any testing, follow up, and discipline in a secure/locked cabinet.

General Information for our Workers

If you know someone at work has an alcohol or drug problem, you have a personal responsibility to ensure the safety of yourself and others. Part of that responsibility would be to encourage and help that individual seek assistance through an employee assistance service or a supervisor. If that individual is putting him or herself or others in danger, you have a responsibility to report that individual to your supervisor or leader.

Any medication, prescription, or non-prescription, that may affect your ability to perform your job safely, must be reported. Other medications that do not affect

your ability to perform your job safely need not be reported. Any medications or medical information reported is treated as confidential.

The effects and side effects of prescription medications are usually provided by pharmacies. Effects and side effects of non-prescription medications are also provided with the medication. More information can be obtained from your pharmacist or physician. Workers are advised to make their physicians or pharmacists aware of their safety-sensitive occupation and any other medications they may be taking.

A positive test result means non-compliance with this Policy and may lead to discipline or termination. Prior to making a final decision on disciplining or terminating an employee, the employee must be directed to an assessment by a substance abuse expert who will make recommendations. The initial assessment is to be completed as soon as possible and the report delivered within two days of completion; the employee is suspended for this period without pay provided this timeline is followed. If a worker is deemed to be dependent on one or more substances they will be referred for further assessment and treatment. If the assessment indicates that there is no dependence with alcohol or drugs a 30 day suspension will be required with a conditional re-employment after a negative test result. .

Except in the most safety-sensitive of positions this policy does not give us the right to test employees at will. The value placed on our personal privacy generally outweighs the right to test simply because it is possible some employees might be abusing alcohol or drugs and coming to work impaired. The balance is however when Westward has, on any reasonable grounds, suspects that a violation of the policy has occurred by an employee who occupies a safety-sensitive position.

President - Lee DeStephanis

June 24. 2021
Date

Client Specific Additions
These additional Standards will be adhered to as directed by our Clients.

Random Testing Standard
The random testing selection program will test a minimum of 50% of the Candidates every calendar year. Once a candidate has been selected and tested

their name will be immediately returned to the Pool for reselection. A Candidate may be randomly selected for testing multiple times in any given year.

Refusing to test when randomly selected is a Failure to Test and, as such, is a violation of the Alcohol and Drug Policy, Supporting Standards and this Site Specific Standard and constitutes grounds for disciplinary action up to and including termination for cause.

If the Alcohol and Drug tests are both negative, the Employee is returned to work

If the Drug test is non-negative the Employee is sent home with pay (arrangements for transportation home must be made) pending the follow-up definitive Drug testing result and related Medical Review Officer review. If the Medical Review Officer confirmed definitive Drug test is negative, the Employee is returned to work. If the Medical Review Officer confirmed definitive Drug test is positive, refer to Discipline section above.

The Alcohol test is considered positive if (If the Medical Review Officer confirmed definitive Alcohol test is positive, refer to Discipline section above.):

- It is at or above .04 BAC.
- If an Employee is subject to an unannounced testing program on return to duty after an Alcohol and Drug Policy violation or treatment, a positive test result is .02 BAC or more.
- An Employee who holds a Safety-Sensitive Position or Specified Position and has an Alcohol test result of .02 to .039.

Medication Standard

In addition to the obligations set out in the Policy and this Standard, all Employees must comply with any additional site-specific Standards.

Employees who require the use of a Medication which may result in their not being Fit for Duty must:

- investigate where appropriate (through their medical professional and/or Health and Wellness) whether the Medication can negatively impact their ability to safely and acceptably perform assigned duties.
- advise Westward in all cases where the Medication could impact their ability to perform their duties safely.
- act responsibly and use a safe alternative Medication when available (e.g., non-drowsy);
- ensure all prescription and non-prescription Medications are kept in the original container, clearly labelled with the Medication name, dose and Employee name for prescription Medication;

- When Health and Wellness, a medical professional, Substance Abuse Professional, or other counselling professional advises that a Medication, or the underlying condition that the Medication is being used for, has potential to cause a safety risk in the workplace the employee will be referred for a health assessment. The assessment may result in a medical clearance, work modification or absence as per the Integrated Disability Management process

The following are examples of Medications which may impact the safe performance of job duties. They are provided only as a guideline to Employees in assessing their own situation. The list is not exhaustive; there are numerous other Medications and substances which may impact negatively on safe work performance.

- Antihistamines/Decongestants (e.g., Allegra, Benadryl) – used to alleviate symptoms related to allergies, colds and flu. Potential side effects may include drowsiness
- Cold Tablets/Cough Mixtures (e.g., Sinutab, Contac, Triaminic, Tussionex and preparations containing dextromethorphan (DM) or codeine) – Potential side effects, in particular with night time remedies, may include drowsiness.
- Motion Sickness Drugs (e.g., Gravol, Dramamine) – used to prevent and treat motion sickness and nausea. Potential side effects may include drowsiness.
- Sedatives/ Antidepressants/Anti-anxiety medications (e.g. Imovane Paxil, Ativan) – used to treat sleep disorders, depression, anxiety. Potential side effects may include mild to severe sedation, hypnotic state, dizziness, or impaired judgement and motor skills.
- Narcotic Analgesics (e.g., Demerol, Codeine, OxyContin, Percocet) – often found in combination Medications such as 222s or 292s or Tylenol 1, 2, 3s. Potential side effects may include sedation, dizziness, light-headedness and impaired judgement/motor skills.
- Stimulants (amphetamines, Ritalin) – used for central nervous system stimulation and can produce sensations of well-being which may have an adverse effect on judgment, mood and behaviour. Potential side effects may include increased heart rate, nausea and vomiting, anxiety, and insomnia.
- Anabolic steroids – Potential side effects include aggressive behaviour,
- Anticonvulsants (e.g., Dilantin) – used to prevent seizures typical of epilepsy. Potential side effects may include drowsiness, dizziness, and decreased alertness.
- Muscle Relaxants (e.g., Flexeril, Robaxisal) – used to treat muscle spasm and pain resulting from injury or neuromuscular disease. Potential side effects may include sedation, drowsiness, blurred vision.
- Medical Marijuana – prescribed for severe nausea, severe pain, and spasms relating to cancer, spinal cord injury, multiple sclerosis, and HIV/AIDS.

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- Other – herbal medications, supplements and other mood altering substances which may alone or in combination with Medications have an adverse effect on safe work performance.

Social and Business Hosting Standard

The safety and well-being of the individuals present and the community is paramount at any Company social event or activity. The following will be followed at Company social event or activity where Alcohol is served:

- Professional/trained servers will work at each event and/or will supervise the use of untrained servers;
- Ensure bars are attended at all times;
- Ensure Alcohol is not served to individuals who appear to be intoxicated;
- Take reasonable steps to prevent abusive or unsafe behaviour;
- Take steps to prevent an apparently intoxicated attendee from driving after the function;
- Communicate to attendees that taxis are available should they be required for the safe travel home of the individual; and
- Contact the police if an incident occurs or an attendee disregards advice and attempts to drive in an intoxicated state.

Responsible serving practices will include providing food and non-Alcoholic drinks, including coffee and tea after the bar has closed, establishing a firm time to end the event, and stopping Alcohol service at a designated time prior to the end of the event.

If Alcohol is made available to Westward employees and guests in the course of conducting Company Business (e.g., restaurant meetings, conferences or seminars), Employees are expected to use reasonable judgment when hosting others.

Behavior Based Safety Program

A behavior based safety program refers to a safety program that focuses on the behavior of workers and supervisors to prevent occupational injuries and illnesses. Behaviours are actions we can see and measure. Whether behaviours are repeated or not depends on their consequences. Actions with positive results tend to be repeated. Actions with negative results tend to be avoided. Safe behaviour must therefore be shown to yield benefits. These benefits will in turn reinforce the actions that produced them. In this way, safety becomes a *habit*.

Training

All supervisors at Westward are trained on how to conduct an observation, and how to provide effective feedback on observed behaviors.

All workers are required to attend a meeting that discusses the expectations of the observation program and the intended benefits of the program.

Job Observations

Job observations are used to identify unsafe behaviors. They provide direct, measurable information on work practices performed by workers. Job observations should never be used to discipline worker, they are intended to help workers identify the safest ways to perform their work.

The purpose of these observations is to promote open communication and productive feedback. Changes in behaviour begin with observation. By observing workers performing a certain task, it's possible to identify which steps in the process are safe and which involve significant risk.

All job observations must be documented on an observation form. The observation forms will be used later to summarize companywide compliance and trends.

Feedback to Workers

The observer is expected to emphasize that the purpose of observations is help employees perform their jobs safely, not to punish or discipline.

It's important that workers be recognized for doing the safe thing. This helps to reinforce the desired behaviour. Reinforcement must be consistent and personal. In some way, the safe behaviour must be made worthwhile to people, not in general but in immediate terms. In most cases this amounts to recognition and encouragement from fellow workers and supervisors.

The observer starts his feedback by commending the safe behavior the worker was doing during his work. Then he explains, one-by-one, the at-risk behaviors the

worker was doing. Then the observer asks the worker why he was putting himself at risk. For example, if the worker is welding a piece of metal and the sparks are flying in the worker's direction. The observer would then ask the worker why he was not wearing protective clothing, like a flame-retardant apron.

They both discuss the at-risk behaviors until the worker agrees to try the suggested recommendation made by the observer. The worker might be aware of his at-risk behavior or maybe not. The worker may be doing the at-risk behavior for a long time without hurting himself. The observer's job here is to highlight this behavior, then explain the associated negative consequences with this behavior.

The above discussion and agreement is the individual feedback which helps the worker to change his behavior.

At the end of the observation, the observer would fill in a checklist with the safe and at-risk behaviors he noticed along with the date, time and location of the observations. The worker's name or identification number are not noted in the checklist. The worker's comments and reasons for the at-risk behavior is documented along with the suggested safe behavior.

Observation Trends Analysis

A group, including the management and the safety department, will take all of the observation results and analyze them to identify trends and enhancements that can be made to make work activities safer.

The group will have meetings (at least twice per year) to discuss and analyze report findings. The group then produces a set of recommendations to tackle workers' behaviors. Some of the recommendations would be as simple as providing Personal Protective Equipment (PPE) to workers in certain locations, or increase work force in another location. Some of the recommendations may require site modification or costly machinery. Such recommendations are sent to top management for necessary approvals.

The recommendations are aimed to eliminate hazards and risks caused by lack of training, hardware or wrong design at Westward. Group members devote time and effort to discuss and analyze these reports. These meetings are counted as part of the management commitment to the behavior process.

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Cellular Phone Use Policy

It is recommended that you pull over and stop prior to initiating a call, and if conditions permit when receiving a call.

- Always ensure that you know whether cell phone usage has been banned in the areas that you will be driving.
- Focus your attention on safe driving as this is your first priority. Always buckle up, keep your hands on the wheel and your eyes on the road.
- Make sure your phone is positioned where it is easy to see and easy to reach. Become knowledgeable about the operation of your phone. Practice using your phone while your vehicle is stationary so you will feel more comfortable operating it on the road.
- Use a hands-free microphone while driving. This will allow you to keep both hands on the wheel while using your phone.
- Your cell phone should be in a secure position in case you make a sudden stop.
- Use the speed or memory dial feature on your phone to program frequently called numbers. It is also recommended that you program the numbers for your local police and fire departments.
- Dial only when stopped. Wait for a traffic light or a stop sign or safely pull off the road. If you must dial a full phone number while driving, dial the first few digits, then survey traffic before dialling the remaining digits. Better yet, have a passenger dial.
- Never take notes while driving. Carefully pull off the road if you must take notes. Many cellular phones have an electronic scratch pad that enables you to key in a new phone number while having a conversation. You can then press the SEND button to call the new number after completing your first conversation.
- Texting or emailing while driving is prohibited.
- Let your voice mail pick up your calls when it is unsafe for you to answer your phone. It's easy to retrieve your messages later on. You can even use your voice mail as a note pad by leaving yourself reminders.

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Be a cellular Samaritan by reporting crimes in progress, accidents and other emergencies to the proper authorities, 911 is a free call for cellular subscribers; however, it should only be used for life-threatening emergencies.

Corporate Social Responsibility Policy

Corporate social responsibility is a tool used by business and industry to increase awareness of social, ethical, and environmental values and to ensure those values are taken into account during business planning activities. Westward strives to meet or exceed our Clients expectations by integrating social, ethical, and environmental concerns together with the usual measures of revenue, profit, and legal obligation.

Our overall goal is to positively impact society and the natural environment while achieving business success. This goal is accomplished by:

- ensuring our workers are aware of the importance of environmental stewardship,
- providing proper equipment to clean any spills immediately after they occur,
- making ethical decisions regarding company issues, and expecting workers to behave ethically as well, and
- assisting, where possible, in community or workers related projects (volunteering time or money).

An annual report indicating what Westward has done over the past year, and what we would like to do in the coming year to continue to be socially responsible may be delivered verbally or in writing to our employees. The summary report will also be available to our Clients, on request.

Document Control Policy

The purpose of this Document Control Policy is to ensure that proper and efficient document management practices are maintained. This has been implemented to ensure that the records of Westward are stored in the most effective and efficient manner.

Westward needs to ensure that important documents are retained to ensure legal, contractual, and other record keeping requirements are adhered to.

Collection of Records
To properly monitor the safety program records must be created and stored. These records include (but are not limited to):

- Incident/Accident Investigation and Reports
- First Aid Reports
- Training Records
- Safety Meetings
- Hazard Assessments
- Alcohol and Drug Testing Acknowledgements
- Emergency Contact Information
- Inspections
- Statistics
- Maintenance Records
- Policy / Regulation Violations
- Observations
- Safety Performance Reviews
- Record of Drill

These records must be stored in a locked cabinet. Information that is included on the forms may be confidential.

This organizational process will also ensure that documents are available during an audit.

Records Retention
Records required to be made or retained under the Occupational Health and Safety regulations must not be destroyed or disposed of for the period prescribed in the regulation for the specific class of records or if there is no prescribed period, for five years after the record is made or comes into the possession of Westward.

Drinking Water Policy

All worksites are supplied with drinking water either from small single use water containers, potable tap water, or a large container designed to pour out of a side spigot. Potable Water is labelled on all containers. Disposable paper cups are available, when required.

In addition to the water supplied, workers are allowed to bring a lunch onsite that consist of fluids of their choice (not including alcohol).

The drinking water container is NEVER to be used to hold any liquids, except potable water.

All workers have been informed of this policy.

Driving Policy

Unauthorized/unlicensed employees will not operate motor vehicles. A licensed driver of a vehicle is responsible for:

- Operating the vehicle in a safe and legal manner.
- The safety of passengers.
- Obeying all signs governing movement and parking of vehicles.
- Not operating a motor vehicle while under the influence of drugs or alcohol. This includes blood alcohol level at or above the local legal limit, illegal drugs, and prescription medications that cause drowsiness or other conditions that may cause impairment.
- Driving within the posted speed limits and for the road conditions at all times.
- Not talking on cell phones while operating a motor vehicle. Not reading and writing e-mails and conducting other keyboard-related activities on a smartphone or PDA while operating a motor vehicle. While on any customer/client property all cell phone use is prohibited while driving.
- Yielding the right of way to any pedestrians.
- Ensuring that provincial driver's license is valid and current for the type of motor vehicle they operate, as required by law.
- For personal owned vehicles used for work purposes.
    - Ensuring Insurance is valid and current as required by law and meets client requirements.
    - Employees who drive to field locations are required to have public liability and property damage insurance (PLPD) and have their vehicles insured for business use.
- Inspecting the condition and operation, before starting motion, of the following: tires, lights, horns, windshields, wipers, rear-view mirrors, brakes, steering gear, head lights, tail lights, turn signals, gasoline, oil and radiator coolant and transmission/steering fluid if applicable. Please use the Vehicle Inspection Form.
- Walking around the vehicle to look for barriers before starting the vehicle.
- All vehicles are equipped with four way hazard lights and two conventional brake lights.
- Ensuring regular maintenance is performed as per manufacturer guidelines.
- Driving in accordance with traffic laws and rules of the road.
- Ensuring all passengers, including the driver, wear seatbelts.
- Considering the rights and privileges of others as a basic "rule of the road".
- Ensuring the vehicle's engine is not running while re-fuelling or changing a flat tire.

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- Taking positive action to ensure that vehicle is unable to move while unattended. Apply hand brake and leave vehicle in either low, reverse, or "park".
- First Aid kits and flashlights must be present in each vehicle and securely stowed.
- Backing up is discouraged, when parking, every effort must be made to park the vehicle in a manner that allows the first movement when leaving the parking space to be forward. Before backing up, a walk around of the vehicle is conducted to verify a clear path by checking for any objects, persons or other vehicles.
- Passengers, other than coworkers required to complete the task, are not allowed in or on any vehicle used to deliver goods.
- Drivers will have 3 years of driving experience on the vehicle he/she is licensed to drive and regularly drives.
- All vehicles are equipped with a mobile phone, 2-way radio, or other such communication device that allows communication with emergency response personnel or company managers. The vehicle must be safely parked prior to using a mobile phone or 2-way radio.
- Passenger compartments must be kept free from loose objects that might endanger passengers and the driver in the event of an accident. Any vehicle with non-segregated storage will be equipped with a cargo net or equivalent to separate the storage area.
- Cargo on or in a vehicle must be adequately stored and secured to prevent unintentional movement of the equipment which could cause spillage, damage to the vehicle, or injury to the operator.
- All vehicle incidents that occur while on company business must be reported.
- Vehicles (light vehicles, heavy vehicles and trailers) are not allowed to be modified without the endorsement of the manufacturer.
- All signs, stickers or labels must not obstruct the driver's vision or impede the driver's use of any controls.
- Vehicle weighing less than 1000 kg are not allowed on public roads except for crossing, when required.
- Tire Requirements:
    - All tires, including spares if full size, must be of same type, profile and tread pattern, except when the vehicle or tire Manufacturer recommends a different type for certain axles.
    - All tires are radial with a minimum tread depth of 1.6mm [1/16 inch], recommended 2.0mm, across 75% of the tire width and tread-pattern visible across 100% of the tire.
    - The tire type and pattern must meet the recommended of the vehicle or tire manufacturer for use on the vehicle in the area of operation.

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- All vehicles must have a spare wheel and changing equipment to safely change a wheel, or a suitable alternative.
- All tire load ratings must be applicable for the application/operating environment.

The following information is recorded and reviewed to improve the Westward driver safety program:

- Accident severity and frequency for all of contractor's operations.
- Cargo space and capacity (weight) utilization.
- Mileage and trip reduction based on consolidation of loads.
- Mileage driven and hours worked for all land transport operations.
- Results (number and analysis of findings) of contractor's driver management system.
- Turnover (monthly percentage) of contractor's drivers.
- Driver abstracts are obtained (a driver abstract contains information on the operator's license, conviction information, demerit points, and suspensions.).

Vehicle Incident Procedure

6. STOP, ensure that everything possible is done for anyone who may be injured.
7. If the accident is of a serious nature, summon the police and in the meantime do not move the vehicle unless it is causing a hazard to other road users.
8. Do not make any admission of guilt or offer payment for the damage.
9. Make every effort to obtain the name and address, of at least one independent witness i.e. someone who was not involved with the accident.
10. Get information from the other driver:
    - Name and address
    - Registration mark of vehicle, make and type
    - Apparent injuries
    - Apparent damage to vehicle or property
    - Name and address of Insurance company including policy number

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Enforcement and Discipline Policy

The purpose of this policy is to ensure that all employees of Westward are held accountable for their own actions in relation to safety and company rules, the following disciplinary action steps will be taken, if required.

All employees are informed and acknowledge the Enforcement and Discipline program during new employee orientations; the training is refreshed during safety meetings and safety talks/training sessions.

Supervisors, foremen, and/or managers are responsible for enforcement of a company's health and safety rules, policies, and/or procedures. Disciplinary action is initiated by a supervisor, and may involve Senior Management.

Offences are categorized as minor or major infractions. Infractions include actions that impede production, employees who flagrantly disregard rules and regulations and are a hazard to themselves, their work associates, company property and equipment.

Minor infractions could include:

- Absenteeism, and failure to call in
- Profanity within hearing distance of customers
- Not returning tools and equipment to its proper storage locations
- Not attending safety meetings
- Failure to call in when working alone resulting in a search to begin unnecessarily.

Major infractions could include:

- Careless or abusive use of company equipment
- Failure to carry out specific orders of a supervisor
- Violation of safety rules
- Failure to wear safety equipment in defined work sites
- Tampering with safety equipment or fire extinguishers
- Removing or immobilizing safety guards or devices
- Short cutting job procedures

Verbal Warning – First Infraction

A verbal warning is the first step in disciplinary action and should be utilized when supervisors or fellow workers notice that Safe Work Procedures or company policies are not being followed.

The verbal warning should be documented and discussed with upper management. The Verbal warning will be noted in the employee's personnel file.

Written Warning
After issuing a verbal warning (or if an initial, serious infraction occurs), supervisors should issue a written warning indicating whether or not the employee should participate in formal or informal training.

Suspension
Serious infractions and (continued) lack of personal accountability will result in a suspension from work. These offences pertain to an outright breach of company rules and regulations. If an individual has totally disregarded all rules and regulations without regard for Westward or fellow employees, the individual will be immediately suspended (without pay) pending an investigation of the offence. Discharge will be upon proof of the offence.

Management will determine whether or not:

1. The employee will undergo a suspension.
2. The suspension will be extended for a longer period of time.
3. The employee will be demoted or terminated from their current position.

Dismissal infractions include:

- Reporting for work under the influence of alcohol or unauthorized drugs.
- Wilful damage to company property or equipment, or that of another employee's.
- Theft from the company or fellow employees.
- Committing an act of violence, harassment, or extreme prejudice against fellow employees, supervisors, or customers.
- Falsifying records including accident/incident records, timesheets, etc.
- Refusal to wear or use safety equipment when ordered to do so by a supervisor.
- Breach of confidentiality about customers, fellow employees or company business.

All warnings and records will be kept in the employees file in order to monitor the safety longevity of the employee.

Environmental Policy

Protecting Canada's natural environment is a national concern. Westward shares that concern and is committed to minimizing the impact of its activities on the environment while managing our operations economically and efficiently.

We take responsibility in upholding this commitment by:

- Complying with applicable environmental law, industry standards, and our own policies.
- Making environmental considerations an integral part of our planning process.
- Operating our vehicles and facilities in a manner that protects the environment.
- Identifying and mitigating the adverse impacts of our operations on the environment in keeping with good environmental and business practices.
- Remaining sensitive to the concerns of the public.
- Responding to environmental emergencies in a prompt and efficient manner.
- Committing sufficient resources to ensure that our employees are fully informed of their responsibilities and are trained to protect the environment while performing their duties.

Westward believes that reducing environmental, energy or social impacts in our day to day business will benefit our company, its employees, and our Clients. We are aware that managing resources and using a pro-active approach to protect the environment will ensure the long-term viability and integrity of the business, while not compromising profitability.

Management, employees, and contractors are all committed to meeting this policy, now and in the future.

President - Lee DeStephanis

June 26. 2024
Date

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Ergonomics Policy

This Ergonomics policy is intended to help address the risk of overexertion injuries of the back as well as strain and sprain injuries to other parts of the body. It is also the intent of Westward to lower the risk of Musculoskeletal Injuries (MSI) or conditions such as tenosynovitis, tendonitis, bursitis, hand arm vibration syndrome, epicondylitis, carpal tunnel syndrome, cubital tunnel syndrome, radial tunnel syndrome, thoracic outlet syndrome, and trigger finger.

This policy was designed to:

- Show a commitment to injury prevention;
- Specify training and education provisions;
- Ensure an understanding of risk identification, factors, assessment, and controls.

Education and Training

All Westward workers will be educated, during orientation in risk identification related to the work, including the recognition of early signs and symptoms of MSI's and their potential health effects. Prior to a worker being assigned to work which requires specific measures to control the risk of MSI they are trained in the use of those measures, including, where applicable, work procedures, mechanical aids and personal protective equipment.

Risk Identification

A review of tasks has been performed to identify factors in the workplace that may expose workers to a risk of musculoskeletal injury (MSI). These regular reviews have been performed in consultation with the committee, where one exists. The following has also been completed to assist in the identification of the risks:

- A check of past workplace records for evidence of MSI, including first aid records and claims history.
- Interviews with workers and supervisors
- Trends in our industry
- MSI statistics in similar operations
- Accident/incident investigation reports and first aid reports
- Information provided by workers who have reported risks or who have signs or symptoms of MSI

Careful job observation for repetitive, long duration, or forceful movements and awkward postures will likely identify most of the ergonomic risk factors. Consider the employee's need for process information via sensory signals including sight, sound, smell, and touch.

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Risk Factors

People have different physical capabilities and limitations; therefore, they will also have different risk factors and predispositions for musculoskeletal disorders. The key work related risk factors are repetition, force, posture, and combinations of these three factors. Poor ergonomics in work procedures and in workplace design can result in compromised work quality, employee injury, and lost productivity.

The following factors are considered, where applicable, in the identification and assessment of the risk of MSI:

- the physical demands of work activities, including force required, repetition, duration, work postures, and local contact stresses;
- aspects of the layout and condition of the workplace or workstation, including working reaches, working heights, seating, and floor surfaces;
- the characteristics of objects handled, including size and shape, load condition and weight distribution, and container, tool and equipment handles;
- the environmental conditions, including cold temperature;
- work-recovery cycles;
- task variability;
- work rate.

When factors that may expose workers to a risk of MSI have been identified, the risk to workers is assessed.

Risk Assessment

When performing a risk assessment any worker with signs or symptoms of MSI and a representative sample of the workers who are required to carry out the work being assessed are consulted. A person who has a good understanding of the work processes involved will complete the risk assessment.

Methods of assessment may include but are not limited to

- Observation of workers performing their tasks, including videotaping
- Still photographs of work postures, workstation layout, etc.
- Workstation measurements, using for example, a measuring tape, or weigh scales
- Measurement of handle size, weighing tools, measuring tool vibration, etc.
- Determination of characteristics of work surfaces such as slip resistance
- Measurement of exposures to heat, cold, vibration, noise, and lighting
- Biomechanical calculations, for example, the force required to accomplish a task or the pressure put on a spinal disk
- Physiological measures
- Worker surveys (for example, use of subjective force rating scales)

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Seek employee comments, concerns, and input about specific job tasks in order to identify alternative ergonomic methods of accomplishing the work (e.g. work organization, job rotation, automation). Together decide the best safe work procedure. There are four basic approaches to accommodating an employee's task-specific needs:

1. design for adjustability;
2. design for interchangeability;
3. design for fit;
4. design to eliminate the problem!

Risk Controls

Westward aims to eliminate or, if that is not practicable, minimize the risk of MSI to workers. Personal protective equipment may only be used as a substitute for engineering or administrative controls if it is used in circumstances in which those controls are not practicable. Westward will implement interim control measures when the introduction of permanent control measures will be delayed.

Where elimination is not practicable, the specific risk factors identified in the risk assessment should be reduced to the lowest practicable level. Typically this means minimizing the duration, magnitude, and/or frequency of the relevant risk factor. Care should be taken to ensure that the reduction of risk of MSI from one factor does not increase the risk from another.

PPE for MSI includes, but is not limited to the following:

- Gloves (for example, vibration dampening gloves, friction gloves)
- Footwear (for example, safe, cushioned footwear with a comfortable toe box, and proper-fitting, low profile heels)
- Devices to protect against contact stress (for example, knee pads and wrist rests on computer keyboards)

Annual Evaluation

The effectiveness of the measures taken to comply with the Ergonomics (MSI) requirements is reviewed at least annually. When deficiencies have been identified, they are corrected without undue delay.

Fatigue Management Program

The safety information in this program does not take precedence over the Transportation Requirements, Labour Standards, or the Occupational Health and Safety Act and Regulations. Workers at every level should be familiar with the requirements as it relates to their work processes.

A Fatigue Management Program (FMP) for Westward was created to increase awareness of fatigue, manage the risk factors and hazards, and prevent related injury and illness. All management and workers must understand what fatigue is, how extended hours of work or consecutive days of work can affect fatigue and the proper proactive methods of effectively dealing with worker fatigue. Training of all workers, supervisors, and management who require the training will occur at or near orientation and thereafter as necessary. The FMP will be monitored, enforced, and updated as needed.

Westward recognizes that fatigue is a factor in the workplace. The Alberta Motor Association (AMA) reports that fatigue is a factor in over half of single-vehicle collisions — one good reason rumble strips are put on highways. Lack of sleep has also contributed to some tragic incidents in the workplace. Fatigue affects a worker's ability to perform mental and physical tasks.

Definition of Fatigue
Fatigue is defined as a state of being tired. It can be caused by long hours of work, long hours of physical or mental activity, inadequate rest, excessive stress, or combinations of these factors. The signs, symptoms, and affect fatigue has on workers varies from one person to the next, however fatigue may affect the individual worker's ability to perform mental and physical tasks, including driving and working with tool and equipment.

The resultant fatigue can lead to any of the following hazardous conditions, effects, or behaviors:

- Inability to see properly;
- Slower reflexes and reactions;
- Micro sleeps (up to 60 seconds where the brain goes to sleep and worker blacks out no matter what they are doing);
- Automatic behavior (where worker does routine tasks but is not having any conscious thoughts);
- Inability to make good decisions or plans;
- Inability to solve problems;
- Inability to concentrate, including wandering thoughts;
- Decreased alertness and watchfulness;
- Inability to remember things just done, seen, or heard;
- Inability to notice things the worker usually would notice;

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- More mistakes than usual;
- Failure to respond to changes in surroundings or situation;
- Poor logic and judgment, including taking risks the worker usually would not take;
- Inability to respond quickly or correctly to changes;
- Inability to communicate well;
- Inability to handle stress;
- Moodiness (example - giddy, depressed, irritable, impatient boredom, restlessness, depression, giddiness, grouchiness, and impatience).

Factors that may have an Influence on Fatigue

Westward has recognized that there are many factors that have an influence on fatigue. Some are listed below:

- ✓ Time of day;
- ✓ Temperature;
- ✓ Working alone;
- ✓ Repetitive or "boring" functions;
- ✓ Being inactive;
- ✓ Length and frequency of breaks;
- ✓ Duration of the extended hours/consecutive days;
- ✓ Availability of food and water;
- ✓ Days off;
- ✓ Type of work;
- ✓ Job stress;
- ✓ Home stress;
- ✓ Non-effective use of personal time;
- ✓ Workplace safety culture.

Westward will take the following measures to mitigate workplace conditions that can contribute to fatigue:

- Create a work environment that promotes alertness;
- Analyze and evaluate work tasks periodically to minimize Fatigue hazards. This is done by reviewing the type of work task, the length of the task, workplace conditions, etc.
- Implement engineering and administrative controls to avoid or greatly reduce exposure;
- Ensure sufficient resources of personnel, equipment, and support;
- Structure hours of work to avoid the hottest or coldest periods of the day;
- Provide additional fluid/nourishment;
- Adjust time factors to incorporate the additional physical requirements and challenging environmental and physical conditions;
- Select PPE appropriate to the situation and/or condition that exists and limiting the duration of tasks requiring PPE that affects performance or that places additional physical demands on the worker.

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Choosing an Optimum Schedule
When choosing work schedules, the risks can be better managed when worker needs, industry requirements, and competitiveness are taken into account. Optimum scheduling is efficient, effective, and appealing.

Breaks
Westward and workers should schedule tasks to allow for sufficient rest breaks and recovery time and should encourage workers to follow proper nutrition and increase physical activity.

Travel
When possible, workers will have a break after traveling and before their first shift. In that period of time, the workers are expected to sleep. Workers should treat their work-related travel time as they would regular work time in terms of fatigue management (e.g. scheduled rest breaks and physical activity breaks). If workers have a long drive ahead of them to get home after working away for extended days, they should be required to rest before getting behind the wheel.

Training
All Westward workers, supervisors, and management have been or will be trained to recognize and respond to fatigue issues at the workplace. It is the responsibility of the supervisor to make corresponding changes to work requirements if fatigue impairment signs are evident. All concerns should be communicated to management and corresponding changes should be documented for review and follow-up.

Responsibilities
Responsibilities of Management

- To ensure the FMP is implemented throughout the company.
- Managers are to ensure crews are strategically positioned for work the following day. Managers have also been trained in FMP and are familiar with the regulations;
- Provide the necessary information about fatigue;
- Provide instruction and training regarding Fatigue and Regulations;
- Communicate expectations to the workers;
- Monitor the effects of extended work hours;
- Support workers who are experiencing concerns with fatigue;
- Investigate any problems and/or concerns;
- Inspect the workplace and review FMP with workers;
- Review the FMP.

Responsibilities of Supervisors

- Scheduling of work and rest days;

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- Ensure all crewmembers understand the FMP;
- Conduct safety meetings discussing fatigue and the FMP;
- Solicit short-term help to minimize the need for extended hours;
- Ensure tasks are performed in safe and healthy manner;
- Be aware of the possible risks associated with extended hours and/or consecutive days of work;
- Give workers as much notice as possible if extended hours are anticipated;
- Account for workers returning from sickness, absences and/or modified work;
- In conjunction with workers, identify health problems which may affect a workers ability to work extended hours i.e. diabetes;
- Consider travel time to and from work.
- Observe and record how individuals respond to extended hours;
- Recognize individual and crew fatigue;
- Get feedback from individual crewmembers and the crew as a whole;
- Assess and control hazards and risks and take prompt action if a risk develops;
- Relay information to and from management & workers;
- Report any FMP problems, concerns and/or issues.

Responsibilities of Workers

- Actively participate in FMP training;
- Take short and frequent breaks;
- Recognize symptoms of fatigue;
- Promptly report any fatigue related concerns;
- Report any individual medical or personal situations, which may have an effect on fatigue;
- To get proper rest during time off;
- Identify personal stress and seek assistance if required.
- Rotate and perform various functions of short duration during extended hours;
- Perform complex tasks earlier in the shift, if possible;
- Utilize the buddy system, when applicable;
- Never operate motor vehicles and/or heavy equipment while excessively fatigued.

Program Review

The development, implementation, and continual monitoring of a FMP will ensure Westward is providing a safe and healthy work environment for all workers. The following will be monitored:

- Periodically review FMP procedures;

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- Compare ratio of crews working extended hours to those not working extended hours;
- Review the effectiveness of the FMP training program;
- Discuss possible alternatives to extended hours of work.
- Management/supervisors to determine the need for extended hours;
- Management/supervisors are to monitor crews when working extended hours for fatigue related concerns;
- Management/supervisors are to address crewmember concerns regarding working extended hours;
- Management are to monitor supervisor/worker relationships;
- Ensure everyone has been trained in the FMP.

Firearms Policy

The possession or carrying of any firearms on the company or client premises is prohibited at all times. This includes company vehicles, privately owned vehicles while on company business, and in the office/shop.

In the event that there are concerns with bears or other dangerous wildlife on the work site, report immediately to the office.

First Aid Policy - Alberta

Training

All field personnel are required to complete Standard First Aid Training put on by St. John Ambulance, Red Cross, or equivalent. On all daily toolbox safety meeting forms, list all designated first-aiders on site (update as new workers arrive). A worker who successfully completes the training by an approved training agency must meet the standards for a certificate in emergency first aid, standard first aid or advanced first aid that are adopted by the Director of Medical Services in consultation with the Joint First Aid Training Standards Board.

Ten percent of the Westward office staff are required to have current Standard First Aid Training. Management will determine who is required to have the training.

Transportation of Injured Workers

Prior to all new jobs starting the office will ensure arrangements are in place to transport injured or ill workers from the work site to the nearest health care facility. This will generally be done in a work vehicle. When working on remote sites STARS will be contacted.

Ambulance service must be readily available to the work site when travel conditions are normal. If an ambulance service is not readily available to the work site, or if travel conditions are not normal, Westward will ensure that other transportation is available that:

- is suitable, considering the distance to be travelled and the types of acute illnesses or injuries that may occur at the work site,
- protects occupants from the weather,
- has systems that allow the occupants to communicate with the health care facility to which the injured or ill worker is being taken, and
- can accommodate a stretcher and an accompanying person if required to.

First Aid Equipment

Depending on the task being performed for Westward, certain work situations may require more extensive first aid supplies than others. All employees should be aware of the required first aid gear needed to satisfy Health & Safety requirements for any given work task (Office or Field). First Aid equipment must be kept in a conspicuous location, maintained in a clean, dry and serviceable condition and readily available to all employees. The First Aid equipment is located in the office and in all vehicles in easily identifiable containers bearing the First Aid cross. Signs are located, where practicable, at conspicuous places at the work site, indicating the location of first aid service, equipment and supplies. Often posting of signs is not practicable; in that case each worker will be informed and know the location of

first aid services, equipment and supplies. As any items are removed they will be refilled at the first available time.

- *Office/Administrative Work*

The Westward office is supplied with a No. 1 First Aid Kit, readily available and accessible to all office workers. The contents and quantities of items needed for a No. 1 First Aid Kit are specified in the below Table.

- *Field Work*

Any field worker working alone must be equipped with a Type P Emergency First Aid Kit, the contents and quantities of items are specified in the below Table and a cellular phone or other means of communication must be in their vehicles.

Employees working at a field site comprising 2-4 persons must be equipped with No. 1 First Aid kits and a cellular phone or other means of communication in their vehicles. At least one of the workers must be a hold a certificate in Standard First Aid (SFA). Worksites with 5-9 persons must have a No. 2 kit, cellular phone or other means of communication, and at least 2 persons with SFA certificates and 3 blankets. The contents and quantities of items are needed for a No. 2 First Aid Kit are specified in the below Table.

Field First Aid kits or communication devices (including cellular phone or radio) will be supplied to field staff if not available/supplied at the vehicle/worksite.

Table 1: Minimum Quantities of Items need for Specified First Aid Kits

First Aid Kit Type (Minimum quantity)			**Item Description**
No.1	**No.2**	**Type P**	
10	10	5	Antiseptic cleaning towelettes, individually packaged
25	50	10	Sterile adhesive dressing, individually packaged
10	20	5	10 cm x 10 cm sterile gauze pads individually packaged
2	3	1	10 cm x 10 cm sterile compress dressings, with ties
2	3	-	15 cm x 15 cm sterile compress dressings, with ties
2	1	-	20 cm x 25 cm sterile abdominal dressing
2	2	-	Conform gauze bandages – 7.5 cm
3	4	1	Cotton triangular bandages
5	8	-	Safety pins – assorted sizes
1	1	-	Pair of scissors
1	1	-	Pair of tweezers
1	1	-	25 mm x 4.5 m roll of adhesive tape

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1	2	-	Crepe tension bandages – 75 mm wide
1	1	-	Resuscitation barrier device with a one-way valve
4	6	1	Pairs of disposable surgical gloves
1	1	-	First aid instruction manual (condensed)
1	1	-	Inventory of kit contents
1	1	1	Waterproof waste bag
-	1	-	20 cm x 25 cm sterile abdominal dressing
-	1	-	Sterile, dry eye dressing

All injuries must be reported to supervisors no matter how minor. Any incident that requires use of first-aid or first-aid supplies should be reported and documented using the Incident/Accident form.

Westward must keep a record of the circumstances of any injury or illness at the workplace and the treatment given in each case. Records of injuries are to be kept for a period of three (3) years. For this reason, first aid kits are supplied with a first aid treatment record. The first aid attendant who administers first aid must enter in the register his family name and given name as well as those of the injured worker, the date, time and description of the injury or sickness and the type of first aid given.

First Aid for Electrical Injuries
AVOID CONTACT with energized lines (**shut off power**).
- ALTERNATING current causes more internal injuries than DIRECT current.

RESCUE only if it is safe to do so.

- **SHUT OFF POWER**
- SAFE DISTANCE (RULE of THUMB) is equal to **TWICE** the height of the power or utility poles.

CHECK VICTIM'S ABC's:
- **P**hone for an AMBULANCE
- **O**pen victim's airway
- **L**ook and listen for breathing
- **I**nsert TWO breaths into mouth
- **C**HECK pulse for 10 seconds
- **E**ngage (begin) AR or CPR . . .

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AR: - **If not breathing**, (has a pulse) start mouth-to-mouth rescue breathing: Seal nose, give 2 full breaths, then continue with 1 normal breath every 5 seconds. Check pulse for 10 seconds every 2 minutes.

CPR: - **If no PULSE** give 15 chest compressions (2 in. on an adult) and 2 full breaths. **Check pulse for 10 seconds every 2 minutes**.

TREAT OTHER INJURIES:

- **Give OXYGEN to electrical shock victims** and continually check their breathing and pulse.
- **Stop bleeding** by applying direct pressure.
- **Don't move** a LIGHTNING victim (possible spine injury).
- Treat FLASH BURNS by applying a sterile dressing.
- Support and immobilize any fracture.
- Treat for shock by keeping the victim warm and comfortable.
- **Obtain medical aid**.

INJURIES commonly caused by ELECTRICAL CONTACT:

- Stopped heart
- FRACTURES
- Electrical BURNS
- Delayed bleeding

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First Aid Policy – British Columbia

This procedure must be posted conspicuously in suitable locations throughout the workplace.

The availability of first aid equipment, supplies, facilities, first aid attendants and services can reduce the long term health issues caused by an accident and maybe even save a life! Westward will provide, for each workplace, such equipment, supplies, facilities, first aid attendants and services that are adequate and appropriate for promptly rendering first aid to workers if they suffer an injury at work, and transporting injured workers to medical treatment.

Training

All Westward workers are instructed in this policy during orientation and as needed to ensure that the information is effectively communicated to all workers.

Westward will ensure that the minimum required first aid attendants with the appropriate level of training are on every site. On all daily toolbox safety meeting forms, list all designated first-aiders on site (update as new workers arrive).

The minimum requirements for a person who is designated as a first aid attendant includes that they:

- are at least 16 years old,
- have successfully completed the first aid training course or first aid examination developed or approved by the Board,
- have a first aid certificate in good standing at the required level issued by the Board or a person recognized by the Board, and
- meets any other requirements determined by the Board for designation as a first aid attendant.

The first aid attendant must promptly provide injured workers with a level of care within the scope of the attendant's training, objectively record observed or reported signs and symptoms of injuries and exposures to contaminants covered by the British Columbia OH&S Regulation, and refer for medical treatment workers with injuries considered by the first aid attendant as being serious or beyond the scope of the attendant's training.

First Aid Assessment

Westward conducts an annual first aid assessment of the workplace, this assessment includes:

- the number of workers who may require first aid at any time,
- the nature and extent of the risks and hazards in the workplace, including whether or not the workplace as a whole creates a low risk of injury,

- the types of injuries likely to occur,
- any barriers to first aid being provided to an injured worker, and
- the time that may be required to obtain transportation and to transport an injured worker to medical treatment.

Reviews of the assessment are completed within 12 months after the previous assessment or review, and whenever a significant change affecting the assessment occurs in the operations.

Transportation of Injured Workers
Prior to all new jobs beginning the office will ensure arrangements are in place to transport injured or ill workers from the work site to the nearest health care facility. This will generally be done in a work vehicle. The first aid attendant and all other persons authorized to call for transportation for injured workers are trained in the procedures.

First Aid Equipment
Depending on the task being performed for Westward, certain work situations may require more extensive first aid supplies than others. All employees should be aware of the required first aid gear needed to satisfy Health & Safety requirements for any given work task (Office or Field). First Aid equipment, supplies, and facilities must be kept in a conspicuous location, maintained in a clean, dry and serviceable condition and readily available to all employees. The First Aid equipment is located in the lunchroom and in all vehicles in easily identifiable containers bearing the First Aid cross. As any items are removed they will be refilled at the first available time.

Effective means of communication will be provided to ensure communication between the first aid attendant and the workers served, and for the first aid attendant to call for assistance. Field First Aid kits with communication devices (including cellular phone or radio) will be supplied to field staff if not available/supplied at the vehicle/worksite.

Table 1: Minimum First Aid Kits and Trained Attendants:

>20 minutes to hospital, Low risk		
Column 1 Number of workers per shift	**Column 2 Supplies, equipment, and facility**	**Column 3 Level of first aid certificate for attendant**
1	Personal first aid kit	
2-5	Basic first aid kit	
6-30	Level 1 first aid kit	Level 1 certificate
31-50	Level 1 first aid kit	Level 1 certificate with Transportation

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	ETV equipment	Endorsement
51-75	Level 3 first aid kit Dressing station ETV equipment	Level 3 certificate
76 or more	Level 3 first aid kit First aid room ETV equipment	Level 3 certificate

<20 minutes to hospital, Low Risk

Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant
1		
2-10	Basic first aid kit	
11-50	Level 1 first aid kit	Level 1 certificate
51-100	Level 2 first aid kit Dressing station	*Level 2 certificate
101 or more	Level 2 first aid kit First aid room	*Level 2 certificate

>20 minutes to hospital, Moderate Risk

Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant
1	Personal first aid kit	
2-5	Level 1 first aid kit	Level 1 certificate
6-15	Level 1 first aid kit ETV equipment	Level 1 certificate with Transportation Endorsement
16-50	Level 3 first aid kit Dressing station ETV equipment	Level 3 certificate
51-100	Level 3 first aid kit First aid room ETV equipment	Level 3 certificate
101-300	Level 3 first aid kit First aid room Industrial ambulance equipment	Level 3 certificate
301 or more	Level 3 first aid kit First aid room Industrial ambulance equipment	2 attendants, each with Level 3 certificates

<20 minutes to hospital, Moderate Risk

Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant
1	Personal first aid kit	

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2-5	Basic first aid kit	
6-25	Level 1 first aid kit	Level 1 certificate
26-75	Level 2 first aid kit Dressing station	* Level 2 certificate
76 or more	Level 2 first aid kit First aid room	* Level 2 certificate

>20 minutes to hospital, High Risk

Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant
1	Personal first aid kit	
2-5	Level 1 first aid kit	Level 1 certificate
6-10	Level 1 first aid kit ETV equipment	Level 1 certificate with Transportation Endorsement
11-30	Level 3 first aid kit Dressing station ETV equipment	Level 3 certificate
31-50	Level 3 first aid kit First aid room ETV equipment	Level 3 certificate
51-200	Level 3 first aid kit First aid room Industrial ambulance equipment	Level 3 certificate
201 or more	Level 3 first aid kit First aid room Industrial ambulance equipment	2 attendants, each with Level 3 certificates

<20 minutes to hospital, High Risk

Column 1 Number of workers per shift	Column 2 Supplies, equipment, and facility	Column 3 Level of first aid certificate for attendant
1	Personal first aid kit	
2-15	Level 1 first aid kit	Level 1 certificate
16-30	Level 2 first aid kit Dressing station	* Level 2 certificate
31-300	Level 2 first aid kit First aid room	* Level 2 certificate
301 or more	Level 2 first aid kit First aid room	* 2 attendants, each with Level 2 certificates

All injuries must be reported to supervisors no matter how minor. Any incident that requires use of first-aid or first-aid supplies should be reported and documented using the Incident/Accident form. Westward will immediately undertake an investigation into the cause of any serious accident or incident whether it resulted

in injury to a worker requiring medical treatment or it did not involve injury to a worker (or only minor injury) but had a potential for causing serious injury. The incident investigation report contains:

- the place, date, and time of the incident,
- the names and job titles of persons injured in the incident,
- the names of witnesses,
- a brief description of the incident,
- a statement of the sequence of events which preceded the incident,
- identification of any unsafe conditions, acts or procedures which contributed in any manner to the incident,
- recommended corrective actions to prevent similar incidents, and
- the names of the persons who investigated the incident.

Westward must keep a record of the circumstances of any injury or illness at the workplace and the treatment given in each case. Records of injuries are to be kept for a period of three (3) years. For this reason, first aid kits are supplied with a first aid treatment record. The first aid attendant who administers first aid must enter in the register his family name and given name as well as those of the injured worker, the date, time and description of the injury or sickness and the type of first aid given. First aid records are to be kept confidential and may not be disclosed except as permitted by the BC OHS Regulation or otherwise permitted by law.

Fit for Duty

Westward is committed to providing a safe work environment for its employees and subcontractors. In order to maintain a safe working environment it is essential that employees and subcontractors are physically able to perform the duties associated with their assigned tasks.

The purpose of this policy is to provide a reasonable assurance that workers are physically and mentally fit to safely perform their assigned duties without excessive risk or harm to themselves or others. Criteria will be based on a job evaluation of required physical requirements and a subsequent testing of those agilities. Westward ensures that workers are trained on the company's Fit for Duty policies and procedures; this is communicated often during Safety Meetings.

It is our duty to send each worker home to their family, whole and healthy and at the same time to ensure their job security.

Responsibilities
Each worker has the responsibility to be ready to perform work in a healthy and focused manner.

- Workers must report all medications they are taking. Over-the-counter medications such as allergy or cold and flu medications could also impair one's ability to perform safely and must also be reported to their supervisor.
- Workers must ensure they are physically and mentally fit to perform their job functions safely.
- Workers must take responsibility for their own safety as well as not reporting to work in a condition as to endanger the safety of their fellow workers.
- Workers unable to perform their duties due to personal health and/or personal issues must remove themselves from being available for work.

Management has the responsibility to ensure all workers are trained (necessary education, experience, and training) to perform their work safely. Workers must be competent to complete assigned tasks. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Workers are also trained on the Fit for Duty policies and procedures.

Supervisors are trained to assess worker behavior for signs of fatigue, impairment, and lack of physical or mental fitness. Workers activities and behaviors will be monitored to determine if they should be removed from the work site (it will be at the supervisor’s discretion to remove a worker from the worksite). Westward will ensure that no person enters or remains at the job site while under the influence of drugs and/or alcohol.

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Criteria to Assess Fitness for Duty

The following criteria are used to assess whether an employee is fit for duty:

- Workers must be physically capable of performing their job tasks. Pre-employment physicals are included in the hiring process, and also when changing into certain job functions and different environments. A Physical Demands Analysis (PDA) will be prepared for each job duty to ensure workers are placed accordingly.
- Training, based on the assigned task, must be completed and competency verified prior to completing the task unsupervised.
- All required safety training must be completed.
- Workers must have access to the safe work practices and procedures and they must be followed.
- Pre-employment, post-accident, or random as drug and Alcohol testing as prescribed by Westward and the host facility.

Results of Assessment

If an employee is determined to be unfit for duty, Westward will provide reasonable assistance to the employee. This may include, but is not limited to, transferring the worker to another role or providing a leave of absence.

Initial Spill Response Policy

This policy is intended to provide the information necessary to address any spill that may occur on Westward owned property, during transportation, or our Clients property.

Adverse Effect
An adverse effect is defined as impairment of or damage to the environment, human health or safety, or property. An adverse effect is further defined as:

- Any third party impact (off site impact);
- Un-recovered spilled substance likely to contaminate surface or groundwater;
- Groundwater and /or surface water that is contaminated;
- A release or spill that has potential for offsite odour complaints; or,
- Toxic or flammable release to air going offsite.

Westward management will be immediately notified of any spill *having an adverse effect* that occurred at the direction of one our workers. Our policy is to clean up all spills as soon as possible once the release has been stopped.

Prevention and Maintenance
Westward will place a high priority on spill prevention to reduce the risk of spills and minimize environmental damage. In order to lower the risk of leaks or spills occurring, Westward personnel will incorporate into safety inspections a check for any signs that equipment may be leaking or is in a condition that future leakage may occur.

Emergency Response
Westward will maintain a high level of preparedness in the event of a spill so mitigation can be initiated immediately reducing the impact to the environment.

Emergency response to a spill draws on people's experiences, training and judgment. No manual can dictate response/contingencies for every type of situation and circumstance; however Westward is committed to being prepared for emergencies and to respond quickly and effectively to all situations.

Emergency response to a spill will occur according to the following priorities:

1. Protection of the public and employees health and safety
2. Protection of the environment
3. Protection of public/private land
4. Protection of company property

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Safety
The safety of site personnel will be considered top priority by Westward.

No clean up actions are to take place until the spilled material has been identified and the correct handling procedures are put in place. Proper health and safety measures should be taken when responding to a spill. This includes the use of appropriate personal protective equipment (PPE).

Procedure
The following procedures are a general guideline to following in the event of a spill:

1. Assess the conditions in the spill area to ascertain if it can be entered safely. Is there H_2S, poisonous vapors, or explosive atmosphere present?
2. Refer to the Safety Data Sheets (SDS) kept onsite.
3. Contact your supervisor and advise him of the spill. If you have a large spill ask for backup personnel to assist you.
4. Remove as much spilled liquid from the site as you can using a vacuum truck and other equipment suitable under the circumstances.
5. If the spill is not flowing or spreading, no containment is required. If the spill is heading down a slope there may be a need to block the movement with a trench or sandbags. If a trench is used ensure Ground Disturbance practices are used.
6. If necessary, the area around the spill should be fenced off to prevent wildlife and livestock from entering the spill area.
7. An environmental company should be called in to deal with large spills. Sampling may be required to verify that the clean up was successful.
8. Ensure any soil that has been excavated is piled on poly or tarps to prevent contaminating another area.
9. Transportation of waste soil and vacuum truck waste must be characterized and disposed of at an approved facility.

Reporting
In Alberta spills of chemicals which require reporting including spills of refined petroleum products are to be reported to Alberta Environmental Protection department (AEP) at 1-800-222-6514 on a 24 hour basis. In British Columbia they are to be reported to Provincial Emergency Program department (PEP) at 1.800.663.3456.

For a TDG accidental release of dangerous goods from containment the following numbers can be used for reporting:

- **911** – this will notify the local police and the fire department
- Alberta – 1.800.272.9600
- British Columbia – 1.800. 663.3456
- Saskatchewan – 1.800.667.7525

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Journey Management Policy

This program is in place, it will be utilized on our Clients request, for extended trips – greater than 400km from last location, or when our workers are travelling in highly risky situations (ice roads, extremely remote sites, etc.).

Driving is one of the most hazardous tasks in the oil patch. Many people have died or have been seriously injured because of a few seconds of inattentiveness. It is important to stay alert…stay ALIVE!

Vehicles must be driven courteously and in accordance with current Traffic Regulations at all times. Failure to do so may result in the withdrawal of the privilege to drive a company vehicle.

Program Supervision

A Journey Manager has been appointed at Westward. The following responsibilities will be completed by the Journey Manager:

- Ensure drivers are trained in Journey Management
- Prepare, maintain and distribute a list of everyone required to follow journey management practices and procedures. This includes drivers with our organization and all regularly contracted drivers and transport companies.
- Ensure all driving shift handovers are documented and reviewed.
- Ensure all drivers have knowledge of the plan prior to each job.
- Ensure sufficient communication is available.
- Complete a risk assessment of different journeys (ie to specific areas, wildlife collision likelihood, private roads, distance, etc).
- Define journeys that do not require approval of the Journey Management Manager. Review and approve/reject requests for journeys that are not in the list and are subject to individual review and approval.
- Must verify that driver's implement all agreed upon control measures.
- Evaluate journeys and retain master copies of safe journey plans for at least three months after closeout of the relevant journey.
- Prepare a monthly report including the following:
    - The number of journeys managed.
    - The number of safe journey plan non-compliances.
    - The number of safe journey plans, which required permission from the authorizing person.
- Prepare an annual report including the following:
    - A trend analysis covering all safe journey experiences.
    - Report on all safe journey experiences including findings and actions to improve the systems.
- Review Journey Plans with drivers. The following is reviewed:

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  - All trips during the darkness or times of reduced visibility are systematically reviewed for risk and are subject to formal management approval.
  - Appropriate means of communication between driver and journey manager are available and is agreed between driver and journey manager.
  - Appropriate vehicles are assigned and inspected.
  - Confirm adequate food, drink, money and other provisions are available for the journey.
  - Ensure appropriate equipment and qualified personnel are assigned for the journey.
  - Estimate of the expected arrival time at the destination is made.
  - Formal pre-trip briefings are held and documented.
  - Identify and discuss all potential driving hazards associated with the journey.
  - Immediately prior to departure, verify the latest report on road conditions and weather, etc.
  - The driver and vehicle comply with all Owner Client requirements.
  - The route is clearly defined and mapped, rest stops are scheduled.
- Before taking a trip to an unfamiliar location, ensure that the driver has printed driving directions available. Do not plan to read directions from a smartphone while driving. A GPS device may be used, but printed directions should be kept as a back-up.
- Before leaving on a trip, particularly during winter, ensure that weather conditions are safe for driving. Ensure the vehicle being used is adequate for the weather conditions. Make sure emergency supplies are in the vehicle, and the driver has a cell phone in case of emergency. In particularly harsh conditions, consider cancelling or rescheduling the trip.
- Road journeys should only be taken when necessary. Try to complete multiple tasks in single trips to reduce the amount of driving for improved safety and efficiency. If the trip is being taken to meet with someone, determine if the meeting can be done over the phone instead. Consider safer methods of travel (air, train, etc.) where practicable.
- Driving should be done during daylight hours rather than after dark, whenever possible. Reduce speed when driving at night. Be aware of the potential for wildlife to be on the road, especially when driving at dusk or dawn.

Vehicle Equipment

All vehicles owned by Westward contain:

- A Vehicle Information Booklet (in the glove compartment).
- Registration papers and insurance certificate.
- Accident reporting forms.

***The safety information in this program does not take precedence over any applicable legislation.*

- A First Aid Kit.
- Water.
- Booster cables.
- Blankets.
- Warning triangles.
- Flashlights.
- Means of communication.
- Sandbags and a shovel (in winter).

Criteria for Operating a Company Vehicle
Drivers of Company-owned and/or Company-operated vehicles, including rental cars, must:

- Have a valid driver's license for the type and size of equipment/vehicle to be operated.
- Know and obey all applicable traffic and motor vehicle laws.
- Have no record of conviction for drunk driving, driving while intoxicated, impaired driving due to drugs or alcohol, or any related offense during the preceding 36 months.

Determining the Schedule and Route
Everyday workers are required to drive to perform work tasks. Journey plans shall focus on safety which shall take priority over all operational considerations. The following should be taken into account before heading out each day:

- **Routes -** Allow for average speeds and not local speed limits. Trucks may not be allowed to travel certain roads, tunnels or bridges for weight, size or hazardous goods reasons.
- **Weather** - Take into account changes in weather on the day before or during the journey and select a safe driving speed.
- **Rest periods** - Truck drivers will be required to take statutory breaks. Car, pickup, and van drivers should take breaks approximately every two to three (2-3) hours.
- **Driver's Hours** - Truck drivers shall make allowances for the effects of duty on site before driving. Daily rest shall be taken before returning to base, if required.

Convoy
The purpose of a convoy is to ensure the timely, orderly, and safe arrival of all equipment and personnel to a location. A convoy is defined as two or more vehicles traveling the same route.

The convoy will:

- Travel no faster than 65 mph/100 kph.

- The slowest unit in the convoy will be the limiting factor
- Reduce operating speeds for adverse traffic, road, or weather conditions
- Travel with their lights on except where prohibited by law
- Not pass Company vehicles traveling in the same direction as the convoy.
- Travel at a safe distance apart, keeping the vehicles in front and behind in sight with the minimum distance between trucks in a convoy being eight seconds or greater at any constant rate of speed
- Observe traffic rules at all times

A driver may make an emergency stop if needed, in which case the remaining vehicles in the convoy will proceed to the nearest safe parking area. One driver will return to the stopped vehicle to determine the problem.

General Safety Rules

1. Workers must notify their supervisor or another individual who is not traveling with them of their travel plans. This includes where they are going, when they should be getting there, and when they plan to return.

2. All federal, provincial, and local laws, ordinances, and regulations must be followed. Above all Westward employees must drive the vehicle safely and courteously.

3. No ill or fatigued drivers will be permitted to operate Westward vehicles.

4. Driving under the influence of a narcotic or alcohol is cause for immediate dismissal. It is the driver's responsibility to notify his/her supervisor if for any reason he/she is unable to drive due to fatigue, medication, a medical condition or a distressed/unstable state of mind.

5. Speeding is absolutely forbidden; trips are scheduled so that the driver is not required to exceed any speed limit on the route to be traveled.

6. Vehicle pre-trip inspections will be performed prior to daily departure.

7. Drivers who are required to wear corrective lenses must have them on while driving.

8. It is mandatory that drivers passing stopped emergency vehicles or tow trucks must slow to 60 kilometers per hour or the posted speed limit, whichever is slower. Drivers passing construction workers must obey posted speed limits. Drivers must slow down to 30 kilometers per hour in school zones and watch for children. When passing a school bus the driver must

stop when the flashing lights are present and not continue until the lights are no longer flashing.

9. Drivers must exercise extreme caution when hazardous conditions, such as those caused by snow, ice, sleet, fog, mist, rain, dust, or smoke exist. Stop the vehicle if conditions become too hazardous.

10. The driver and all passengers must wear seat belts at all times.

11. No vehicle is to be left standing or parked on the traveled portion of a highway if it can be avoided.

12. If a vehicle must be stopped on the highway or shoulder for an emergency the driver must immediately activate the hazard warning flashers.

13. All Company vehicles will have secure loads. Items not permanently affixed to Company vehicles will be carried in secure compartments and must be chained down or covered to prevent from falling off the vehicle. Loose, heavy items or materials must not be carried in the passenger compartments of any vehicle.

14. Disabled Company vehicles must be towed by towing equipment designed for that purpose. Towed vehicles must have brakes and tail-lights in full operation. Reduce speed for bad roads, inclement weather or other unsafe conditions.

15. An Incident Report must be completed if involved in an accident. Drivers will report all vehicle accidents promptly, factually and completely to their immediate supervisor.

16. A driver must notify the company if their license is revoked, suspended or withdrawn.

17. No fueling of vehicles with the engine operating.

18. No smoking or open flame in the vicinity of a vehicle being fueled.

19. No unauthorized riders allowed.

20. Drivers must have a valid driver's license for the type of vehicle to be operated and keep their license(s) with them at all times while driving.

***The safety information in this program does not take precedence over any applicable legislation.*

Load Securement Policy

The safety information in this policy does not take precedence over the Transportation Requirements or the Occupational Health and Safety Act and Regulations. Employees at every level should be familiar with the requirements as it relates to their work processes.

All drivers at Westward must ensure that any items that may leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle, or shift upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely have been adequately immobilized. *Keep in mind that this requirement affects ALL vehicles, not just commercial vehicles.* This Policy relates to all general freight and all equipment carried within the vehicle including shovels, tools, fire extinguisher, etc.

Cargo being transported on any highway must remain secured on or within the transporting vehicle. Westward has prepared this Cargo/Load Securement Policy to be followed by all employees that have to carry materials on their vehicles. This policy addresses when a load must be secured and by what means. The safety of all road users depends on every vehicle on the road complying with regulations and safe work procedures regarding load securement.

Cargo will be firmly immobilized or secured on or within a vehicle by structures of adequate strength, blocking, bracing, dunnage or dunnage bags, shoring bars, tie downs or a combination of these. The cargo securement system used to contain, immobilize, or restrain cargo will be appropriate for the size, shape strength, and characteristics of the cargo. Westward will not permit a driver to operate a vehicle where the cargo transported in or on the vehicle is not contained, immobilized, or secured properly.

An improperly secured load can result in loss of life, loss of load, damage to the cargo, damage to the vehicle, an accident, issuance of litigations/fines to driver/carrier, or the vehicle being placed Out-of-Service.

All items must be secured including fire extinguishers, tool kits, accessories, etc.

Training

All drivers are trained to meet the cargo securement requirements of best practices, the National Safety Code Standard #10 and industry best practices (as recommended by the Petroleum Services Association of Canada (PSAC) and the Canadian Association of Oilwell Drilling Contractors (CAODC)).

General Provisions

Prior to operating a commercial motor vehicle the cargo must be properly distributed and adequately secured.

***The safety information in this program does not take precedence over any applicable legislation.*

The cargo or any other object must not:

- Obscure the driver's view ahead or to the right or left sides (except for drivers of self-steer dollies).
- Interfere with the free movement of the driver's arms or legs.
- Prevent the driver's free and ready access to accessories required for emergencies. OR
- Prevent the free and ready exit of any person from the commercial motor vehicle's cab or driver's compartment.

The securement system chosen must be appropriate for the cargo's size, shape, strength, and characteristics. The articles of cargo must have sufficient structural integrity to withstand the forces of loading, securement, and transportation. This includes packaged articles, unitized articles, and articles stacked one on the other.

Securing Devices

A Securement System is a method that uses one or a combination of Vehicle Structure, Securing Devices, and /or Blocking and Bracing Equipment.

A securing device is any device specifically manufactured to attach or secure cargo to a vehicle or trailer. The following are examples of securing devices:

- Synthetic Webbing;
- Chain;
- Wire rope;
- Manila rope;
- Synthetic rope;
- Steel strapping;
- Clamps and latches;
- Blocking;
- Front-end structure;
- Grab hooks;
- Binders;
- Shackles;
- Winches;
- Stake pockets;
- D-rings;
- Pocket;
- Webbing ratchet;
- Bracing;
- Friction mat.

When nylon straps are used they are 4 inch wide.

All load securing anchorage points are designed so that all forces imposed by the load are transmitted to the main chassis.

All vehicles or trailers are fitted with a solid headboard or equivalent to stop loads, in combination with other load restraining devices, from moving forward when decelerating at 0.8G.

Trailers designed specifically to haul a container only, do not require a headboard, but must be fitted with suitable twist locks for both 20 ft. and 40 ft.

A combination of securing devices that forms an assembly that attaches cargo to, or restrains cargo on a vehicle is called a Tie Down. Tie Downs can be used in two ways:

Attached to the cargo

- Tiedowns attached to the vehicle and attached to the cargo.
- Tiedowns attached to the vehicle, pass through or around an article of cargo, and then are attached to the vehicle again.

Pass over the cargo

- Tiedowns attached to the vehicle, passed over the cargo, and then attached to the vehicle again.

All components of a tie down must be in proper working order.

- No knots or obvious damage;
- No distress;
- No weakened parts;
- No weakened sections.

Cargo must be fully contained by structures of adequate strength. Cargo should not shift or tip and must be restrained against horizontal movement by vehicle structure or by other cargo. Horizontal movement includes forward, rearward, and side to side.

Minimum Number of Tiedowns

The cargo securement system used to keep articles from moving must consist of a minimum number of tiedowns. This requirement is in addition to complying with rules concerning the minimum working load limit. When an article of cargo is not blocked or positioned to prevent movement in the forward direction, the number of tiedowns needed depends on the length and weight of the articles. There must be at least:

- One tiedown for articles 1.5 metres or less in length, and 500 kilograms or less in weight;
- • Two tiedowns if the article is:
  - 1.5 metres (5 feet) or less in length and more than 500 kilograms (1,100 pounds) in weight; or
  - Greater than 1.5 metres (5 feet) but less than 3.0 metres (10 feet), regardless of weight;
  - Three or more tiedowns if the article is longer than 3.0 metres (10 feet).

For example, one tiedown is required if the article of cargo is 1.5 metres in length and does not exceed 500 kilograms (1,100 pounds). If the article of cargo was greater than 1.5 metres in length but less than 3.0 metres, then two tiedowns would be needed regardless of the weight. A six foot long ladder, weighing 50lbs will require 2 tiedowns.

When an article of cargo is not blocked or positioned to prevent forward movement and the item is longer than 3.0 metres (10 feet) in length, then it must be secured by:

- Two tiedowns for the first 3.0 metres of length; and
- One additional tiedown for every 3.0 metres of length, or fraction of, beyond the first 3.0 metres.

If an article is blocked or braced to prevent forward movement by a headerboard, bulkhead, other articles that are adequately secured, or by other appropriate means, then it must be secured by at least one tiedown for every 3.0 metres of article length, or fraction of.

Chocks

Chocks, wedges, a cradle, or other equivalent means that prevent rolling. These must be secured to the deck. Where any cargo or portion thereof may roll, it will be restrained by chocks, wedges, a cradle or another securing device that prevents the cargo from rolling.

Working Load Limit (WLL)

The Working Load Limit is the maximum load that may be applied to a component of a cargo securement system during normal service. The WLL is usually assigned by the component manufacturer. The working load limit of a tie down or a component of a tie down that is marked by its manufacturer with a numeric working load limit is the marked working load limit. The cargo securement system is only as strong as its weakest component.

Inspection of Load

After the Load has been secured, and before operating the vehicle the driver (or swamper) will:

- Inspect the vehicle to confirm that the vehicle's tailgate, tailboard, doors, tarpaulins and spare tire, and other equipment used in its operation, are secured.
- Ensure that the cargo does not interfere with the driver's ability to drive the vehicle safely.
- Ensure that the cargo does not interfere with the free exit of a person from the cab or driver's compartment of the vehicle.

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- Inspect the vehicle's cargo and the cargo securement system used and make necessary adjustments.

The driver of a vehicle will inspect the vehicle's cargo and the cargo securement systems used and make necessary adjustments:

- Before driving the vehicle, and
- Not more than 80 kilometers from the point where the cargo was loaded.

The driver of a vehicle will re-inspect the vehicle's cargo and the cargo securement system used and make necessary adjustments to the cargo or cargo securement system as necessary, including adding more securing devices when:

- There is a change of duty status of the driver,
- The vehicle has been driven for 3 hours; or
- The vehicle has been driven for 240 kilometers.

Management of Change (MOC) Policy

This Management of Change (MOC) Policy is intended to identify and control potential hazards or impacts associated with change that may affect Health, Safety or the Environment. MOC ensures that the impact of changes are properly recognized, reviewed, approved, communicated, and documented.

Changes, even very simple ones, have caused accidents, near misses and environmental harm. We have developed this policy to mitigate the potential for harm resulting in a change of process.

Work arising from temporary and permanent changes to organization, personnel, systems, process, procedures, equipment, products, materials or substances, and laws and regulations cannot proceed unless a Management of Change process is completed.

There are 5 different changes where this policy should be used:

1. **Physical Change:** Any physical change, except replacement-in-kind, or any deviation from the documented safe operating limits or procedures.
2. **Personnel Change:** Change in the organization or a change in personnel that supervise that may lead to a loss or transfer of personnel with specific knowledge or experience.
3. **Replacement-in-Kind:** An item (equipment, chemical, procedure, etc.) that is quite similar to an existing product currently used.
4. **Temporary Change:** Any change that will not remain in effect indefinitely. A point in time will be specified when the temporary change will be returned to original conditions. A temporary change will be subject to the same evaluation as permanent changes.
5. **Emergency Change:** Action necessary to remedy an emergency situation that poses imminent impact to safety, health, or the environment.

Procedure/Process

While no single procedure is recommended for all changes, the process to manage each change should address:

- Analysis of safety and environmental implications
- Communication of potential consequences and required compensating measures
- Training, if required
- Authority approval of changes

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The process begins when the need for a change is identified. The proposed change must be clearly communicate to appropriate management including a description of and reason for the change. Management will evaluate merits of the change and determine the additional action required to properly address the change. Input from other workers and supervisors should be used, as appropriate to, determine if the change is required.

When a proposed change has been identified it must be evaluated for potential safety, health and environmental implications. A review should be conducted to assess hazards associated with implementing a change. The review should also ensure that all codes, standards, design specifications, compatibility assessments, and generally accepted engineering practices have been met. In addition to hazards the review should also address all of the benefits associated with the change.

Management is required to authorize the change before implementation. This must be done in writing.

Prior to implementation, the change must be properly communicated to affected workers; this can be accomplished through pre-job safety meetings. Any training requirements should be formally identified and completed prior to start-up.

After the change has been implemented, the management is responsible for verifying that the change was performed as intended.

If the change is temporary, time limits must be set. Management must ensure that these time limits and any other stipulations of the temporary change are not violated.

In an extreme emergency, it may be necessary to carry out a modification or procedural change before normal MOC procedures can be followed, in these cases, the change will be permitted only on the verbal authority of designated person in charge. However, the emergency change should be subjected to the normal MOC procedures at the earliest possible time.

Modified/Return to Work Program

The purpose of this Return to Work Program is to assist Westward in safely returning injured / ill workers in a timely manner to meaningful and productive employment when medically able.

The modified work program is reviewed with employees as part of the new hire orientation and throughout the year in Safety Meeting and Toolbox talks.

Westward will make every reasonable effort to provide suitable employment to any employee unable to perform their regular duties. This may include a modification to the employee's original position or providing an alternate position, depending on the employee's medical restrictions. Only work that is considered to be meaningful and productive will be considered for use in the Return to Work program. Participants placed on Return to Work plans will be expected to provide feedback in order to improve the program. All employees, regardless of injury or illness, will be considered for placement through the Return to Work program.

A list of jobs available for employees on modified duty is maintained. These jobs are assessed to determine which jobs can be performed by persons working under specific restrictions. A Physical Demands Analysis (PDA) may be prepared for each of these jobs to ensure workers are placed accordingly.

Benefits the employee receives from the program are as follows:

- Provides a sense of security about continued employment.
- Injured workers remain active and productive, reinforcing a self-worth attitude.
- Pain and suffering are minimized and physical health is promoted.
- Maintain social contact with fellow employees to encourage a faster return to the job and speed up recovery time.
- Injured workers and their families experience less emotional and financial disruption in their lives.
- Maintain Employment Insurance eligibility. If a worker remains on Workers' Compensation benefits for longer than 104 weeks, they no longer qualify for Employment Insurance.
- Maintaining necessary job skills.

In order for the Westward Modified/Return to Work Program to work effectively the employee needs to contact the managers/supervisors as soon as an injury or illness occurs that restricts the performance of their job. As well Westward will enlist the cooperation of the employee in identifying and reporting other job functions that may be incorporated into the modified work. Westward may assign responsibilities and tasks different from the employee's regular job when the

employee cannot perform their full duties or work a full day. In all cases, the assigned/modified work must be consistent with the employee's medical restrictions.

The injured employee will bring the modified work forms to the physician and indicate that they must be completed. If a physician determines the employee is not able to perform modified/return to work tasks, the employee will be placed on leave until such time as appropriate work can be assigned or the restrictions are lifted.

If a Worker is unable to perform his/her regular duties due to a workplace injury or incident and a physician approves modified work, the following steps are taken:

- The Physician advises what level of modified work the worker can perform;
- Worker is offered modified work;
- Worker agrees to the modified work or refuses stating that on the modified work offer;
- Worker is paid regular wages by Westward while performing modified work;
- Worker must continue to be monitored by a Physician; and,
- Worker will return to regular duties when cleared by a Physician.

Monitoring Program Participants

The supervisor will monitor modified work activities to ensure that the employees work within the assigned limitations. Supervisors are trained to set a positive tone for the rest of the workers that will come in contact with the returning worker.

Work restrictions, as described by the treating physician, will be **strictly** adhered to. The worker must comply with all prescribed treatments, as well as keep the supervisor apprised of ongoing medical conditions or concerns.

If a workers condition worsens or the condition is not improving as planned, the worker will be required to obtain medical assistance and not work until the employee's condition shows evidence, as determined by a physician, of improvement. Under no circumstances will a worker be permitted to return to work or continue to remain at work if their condition is not improving.

Records

Medical records are kept by Westward strictly on a need-to-know basis. The records are kept in a locked file.

Westward maintains written records of incident details. This will help Westward recall information about the circumstances of the incident at a later time, and will demonstrate due diligence. Records are kept of communications with the injured

employee regarding modified work. Workers Compensation and medical records, where applicable, should also be maintained.

New and Young Worker Policy

This policy is to ensure that New and Young Workers are identified, appropriately supervised, trained and managed in order to prevent accidents such as personal injury, injury to others, environmental damage or property damage. This policy will be followed when required by the Client, and only when any New and Young Worker will be onsite for the project.

> **New Worker / Short Service Employees (SSE)** - *Any full time or temporary personnel with less than 6 months experience in the same job type or with his/her present employer.*
>
> **Young Worker –** *A worker under the age of 25. A young worker is also considered a SSE.*

Pre - Job
The supervisor will communicate the New and Young Worker Policy and expectations at the pre-job meeting. The supervisor will ensure that the crew makeup meets the following requirements:

- SSE's cannot work alone.
- Crew sizes of less than five shall have no more than one SSE.
- Crews that have more than 20 percent SSE personnel may be permitted, but only with written permission from the Westward supervisor.

Notification
The proposed crew make-up must be outlined in the Short Service Employee Form. Prior to the job mobilization, the SSE Form will be completed by the supervisor and be communicated to our Client. All variances will be reviewed by our Client and the crew makeup will be finalized.

If an SSE working for Westward arrives on our Clients property and a SSE form has not been submitted, our Client may elect to send the SSE back to our facility at our expense.

Identification
New and Young Worker personnel will be visibly identified with a hi-vis orange hard hat, a green hand sticker, or the letters SSE in a contrasting color on the side of the hard hat.

SSE Monitoring
Westward will monitor its employees, including SSE personnel, for HES awareness. If, at the end of the six-month period, the SSE has worked safely, adhered to HES policies and has no recordable incident attributable to him/her, the

SSE identifier may be removed at the discretion of Westward. Any worker that does not complete the six-month period recordable free may need to get our Clients approval in writing prior to returning to operator's property.

Mentoring Process

Westward has in place a mentoring process designed to provide guidance and development for New and Young Workers. A mentor can only be assigned one SSE per crew and the mentor must be onsite with the SSE to be able to monitor the SSE.

Subcontractors

Westward will manage all of our subcontractors in alignment with this process.

Noise Policy

The purpose of this noise policy is to protect all Westward employees and contractors from occupationally induced hearing loss, increase worker noise awareness, and to reduce noise exposure using engineering and administrative controls, as much as possible. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for this noise policy.

Whenever possible work must be completed as far as reasonably practicable from any noise sources. Our purchasing policy allows for the purchase of tools and equipment that are inherently less noisy.

The Alberta Occupational Health and Safety Code has set limits to ensure that a worker's exposure to noise does not exceed the noise exposure limits in Schedule 3, Table 1, and 85 dBA L_{ex}.

The British Columbia Occupational Health and Safety Regulation has set limits to ensure that a worker's exposure to noise does not exceed 85 dBA Lex daily noise exposure level or 140 dBC peak sound level.

The Saskatchewan Occupational Health and Safety Regulation has set limits to ensure that a worker's exposure to noise does not exceed 85 dBA Lex daily noise exposure level.

The Manitoba Occupational Health and Safety Regulation has set limits to ensure that a worker's exposure to noise does not exceed 85 dBA Lex daily noise exposure level.

Noise Exposure Assessments

Westward conducts noise exposure assessments at the workplace in accordance with CAN/CSA Standard Z107.56 06, Measurement of Occupational Exposure to Noise. A written report of the assessment will be prepared and posted in a conspicuous place in any area where a worker is or is likely to be exposed to noise at a workplace in excess of 80 dBA. A competent person will do the noise assessment. The competent person will evaluate the sources of the noise and recommend corrective actions. The measurements, evaluation and recommendations are to be documented. The documents, including noise level measurements evaluation and recommendations will be kept in a secure office filing cabinet for as long as Westward operates.

If it is not practicable to reduce noise levels to or below noise exposure limits, Westward will reduce noise exposure to the lowest level practicable and post

warning signs in the noise hazard areas. If our work is not the cause of the noise and other workers or the host facility has already completed a noise exposure assessment you are require to abide by all signage and Client specific training. Workers in a posted noise hazard area must wear hearing protection.

If a noise exposure assessment has confirmed that workers at Westward are exposed to noise over 85 dBA then a site specific noise management program that includes policies and procedures will be developed and implemented. If the noise assessment identifies any area to be over 85 dBA then warning signs will be posted outside of each of these areas.

Westward will inform affected workers of the results of any noise exposure measurement and the significance of the measurement to risk of hearing loss.

Noise Program

If a noise exposure assessment has confirmed that workers at Westward are exposed to noise exceeding either of the noise exposure limits an effective noise control and hearing conservation program must be developed and implemented with the following elements:

- noise measurement;
- education and training;
- engineered noise control;
- hearing protection;
- posting of noise hazard areas;
- hearing tests; and
- annual program review.

Hearing Conservation

Often it is impracticable to apply engineering and administrative controls to reduce the noise levels to which the worker is exposed to 85 dBA Lex or less. Hearing protection is recommended in addition to any other controls to reduce the level of noise reaching your inner ear.

During orientation all workers are provided with training in the selection, use and maintenance of hearing protection equipment required to be used at a work site. The hearing protection will be in accordance with the CSA Standard Z94.2-02 Hearing Protection Devices-Performance, Selection, Care, and Use and manufacturer's specifications.

Hearing protectors provided must reduce the noise level received into the worker ears to not more than 85dBA. Where it is not practicable to comply Westward will ensure that a hearing protector provided reduces the noise level received into the workers ears to the lowest level that is practicable.

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If a workers' occupational noise exposure is or is believed to be between 80-85 dBA, hearing protectors are expected to be worn and workers will be informed of the hazards of occupational noise exposure. The hearing PPE will be available and must meet the legislative requirements. Even then it should only be used as an interim measure until effective engineering controls can be installed. Hearing protection improperly fitted, worn, or maintained may only reduce noise entering the ear by as little as 3 dBA.

All workers whose occupational noise exposure equals or exceeds 85dBA are particularly protected by:

- taking all reasonably practicable steps to reduce noise levels in all areas where the worker may be required or permitted to work,
- minimizing the workers' occupational noise exposure to the extent that is reasonably practicable, and;
- documenting the steps taken.

Muffs are often preferred for intermittent use and when working with dirty hands. Facial hair and the arms of glasses (unless very thin) can cause an ineffective seal. Plugs are often preferred in hot environments.

Pre-molded plugs are available in more than one size; in some cases a person may need a different size for each ear. Ear caps are not used very often but can be used for short periods of time when noise is periodic and not extremely loud.

When workers are allowed to choose from several types of appropriate protection, they are much more likely to wear it.

Use your judgement, if signs are posted or it is difficult to communicate within 3 feet of another person you must use your hearing protection.

The best hearing protection is of no value unless it is accepted and worn correctly and consistently.

Hearing Tests

All workers who are exposed to noise that exceeds or may exceed noise exposure limits must have an initial hearing test (at the expense of Westward) as soon as practicable after employment starts, but not later than 6 months (70 days in Manitoba) after the start of employment, and at least once every 12 months after the initial test. A hearing tester authorized by the Board administers the hearing tests and sends the test results to the Board.

Records
Westward keeps records of:

- the annual hearing test results for each worker, which must be kept as long as the worker is employed by the employer, and be kept confidential and not released to anyone without the written permission of the worker, or as otherwise required by law,
- the education and training provided to workers, and
- the results of noise exposure measurements taken.

Employer Responsibilities
Under the regulations employers are required to take various steps to minimize the chance of workers being overexposed to noise, including:

- Ensuring the lowest possible noise levels in new and renovated workplaces;
- Measurement, evaluation and documentation of noise sources;
- Implementation of all reasonably practicable measures to reduce noise or to isolate workers from the noise source;
- Posting noise levels if over 80 dBA.

Where noise exposure cannot be sufficiently reduced by engineering means, the regulations require that workers be:

- Provided with information on the harmful effects of overexposure to noise
- Effectively protected against the harmful effects of noise (e.g. limiting exposure time, quiet “rooms”, etc.)
- Provided with, and wear, adequate and suitable hearing protection (choice of types should be made available) and be given training on the selection, use and maintenance of the protection
- Provided with an opportunity to have an audiometric (hearing) test, arranged for them by the employer/contractor, at least once every year.

Worker Responsibilities
The OH&S Regulations require workers to:

- Wear the hearing protection provided when average daily noise levels equal or exceed 85 dBA;
- Take all reasonable steps to prevent damage to the hearing protection;
- Notify the Westward if the protectors become defective or fail to provide the intended protection;

Noise Reduction
All reasonably practicable means are used to reduce noise levels in all areas were workers may be required or permitted to work.

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Noise Control Design

At Westward, we make sure that all new design and construction will achieve the lowest reasonably practicable noise level. All alterations, renovations or repairs to Westward will ensure the lowest reasonably practicable noise level, and all new equipment to be used at a place of employment is designed and constructed so as to achieve the lowest reasonably practicable noise level.

Preventing Noise Problems

Many noise problems can be prevented by careful planning at the design stage prior to plant construction, renovation, repair, or introduction of new processes or equipment.

Practical solutions to noise problems include:

- Full or partial enclosures;
- Noise barriers;
- Sound absorption or baffles (in rooms/ buildings with hard walls and ceilings);
- Acoustical pipe wrap;
- Trowel-on vibration damping materials;
- Routing waste compressed air to remote locations and mufflers/silencers for engines and compressed air.

Hearing Conservation Plan

When 10 or more worker's occupational noise exposure exceeds or is believed to exceed 85dBA Westward will develop a hearing conservation plan and review, where necessary, and revise the hearing conservation plan every three years.

A supervisor will be appointed to oversee the hearing conservation plan after it has been developed.

Pandemic Virus/Flu Policy

A Pandemic Flu rarely happens, about 3-4 times a century; usually it is when a dramatic change occurs in a strain of influenza-A virus, other viruses can also cause Pandemic strains. In the majority of people, the immune system has never been exposed to this new virus and therefore most people have no immunity to protect them from becoming infected. Existing vaccines are not effective and a new vaccine may take longer than usual to develop. If the new virus spreads easily from person-to-person, the influenza virus can spread around the world quickly. This causes widespread outbreaks of disease and can lead to significant numbers of hospitalizations and deaths as well as social and economic disruption. This worldwide outbreak is called a pandemic.

The effects of an influenza/virus pandemic are different than a natural disaster. Countries and provinces may not be able to help each other as they do during natural disasters, because a pandemic affects all parts of the world. Infrastructure remains intact but a pandemic can have a longer duration than a natural disaster and absenteeism may be high. Workers will be encouraged to stay home until the contagious period passes.

This plan and emergency communication strategies are periodically tested to ensure it is effective and workable.

Training
All employees will be periodically trained on:

- Awareness of pandemic influenza and viruses including health issues of the pertinent disease to include prevention of illness and initial disease symptoms.
- Potential ways of contracting the virus.
- Control measures to break the chain of infection including hand washing and disinfecting.
- Awareness of social distancing-keeping a distance of 2 meters or more from someone suspected of having pandemic influenza/virus.
- When it is appropriate to return to work after illness.
- Disease containment plans.

Communicating information with non-English speaking employees or those with disabilities will occur.

Follow all Government and Client Requirements
Local and Federal governments and the Clients you work for may put requirements in place. Ensure you abide by those requirements.

***The safety information in this program does not take precedence over any applicable legislation.*

Requirements may include:

- Self-Quarantine for a length of time after travel to a highly impacted area.
- Localized-Quarantine.
- Cancelling events (work related and high population events).
- Working from home, where possible.
- Wearing a hospital mask if you have been diagnosed or may have symptoms while in public to receive treatment or diagnoses.
- Reporting symptoms to a central database.

Prevention and Mitigation

The main reasons the influenza virus spreads is coughing or sneezing by a person infected with the virus. The best method to reduce the likelihood of becoming sick is to follow these precautions (supervisors will remind workers to follow these precautions):

- Get your vaccinations, as recommended by the local Health services. All workers are encouraged to be vaccinated annually for the new flu / virus strains.
- Stay home when you're sick or have influenza symptoms. The first symptom is usually a high fever. Get plenty of rest and check with a health care provider as needed. Influenza is usually contagious for 7-12 days once symptoms start. Workers are encouraged to stay at home when ill, when having to care for ill family members, or when caring for children when schools close, without fear of reprisal.
- Antiviral drugs can be given to people shorten the length of illness and reduce flu complications.
- Avoid close contact with people who are sick. If you are sick, keep your distance from others to protect them from getting sick. Staying 1-2 metres away from people will reduce the airborne person to person transmission of influenza.
- Coughing or sneezing should be done into your elbow, upper arm or a tissue which is to be thrown away immediately. Do not cough or sneeze into your hands.
- Wash your hands for a minimum of twenty (20) seconds using soap and water. Washing your hands often will help protect you from getting sick. When soap and water are not available, use alcohol-based disposable hand wipes or gel sanitizers. Hand washing facilities, hand sanitizers, tissues, no touch trash cans, hand soap and disposable towels will be provided by Westward.
- Avoid touching your eyes, nose or mouth. You can become ill by touching a surface contaminated with viruses and then touching your eyes, nose or mouth.

- Practice other good health habits. Get plenty of sleep, be physically active, manage stress, drink plenty of fluids, eat nutritious foods and avoid smoking, which may increase the risk of serious consequences if you do contract the flu.
- Social distancing including increasing the space between employee work areas and decreasing the possibility of contact by limiting large or close contact gatherings will occur. Reduce or avoid face to face meetings, unnecessary travel, public transportation, shaking hands, and restaurants.
- Telecommuting, working at home, and the use of offsite locations are valuable tools that Westward will use to contain the spread of illness at work sites during a public health emergency.
- Use household cleaners regularly on all hard surfaces.

Housekeeping

While influenza viruses may live up to two days on a hard surface, regular cleaning with household cleaners and products will inactivate them. Surfaces that are frequently touched with hands should be cleaned often-preferably daily using disposable gloves. Household cleaners should be left for 30 seconds before being wiped off.

- Workstations and equipment should be cleaned with regular household cleaners when individuals are changing work stations, and at least daily.
- Clean all areas that are likely to have frequent hand contact (like doorknobs, faucets, handrails) periodically and when visibly soiled.
- Thoroughly wash cups, dishes, and cutlery with soap and hot water after individuals use. Preferably in the dishwasher.
- Garbage should be emptied daily.
- Ensure air filtration and air conditioning systems have been cleaned and able to properly filter.
- Discourage workers from sharing phones, desks, offices or other work tools and equipment, as possible.

Company Specific Plan

This pandemic disease plan has been developed and the president has been appointed to have the overall responsibility for dealing with disease issues and their impact at the workplace. During a pandemic other responsibilities will be given to the Health & Safety Coordinator and other management. The President, with the guidance of others within the company, will ensure they monitor government and Client requirements. As each Pandemic is different in duration, cause, and severity a specific plan will be put in place. The presidents appointed designate may contact local health department and health care providers in advance and develop and implement protocols for response to ill individuals.

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A business continuity plan is developed to ensure companies can run during uncontrolled changes that may affect the company during a threat or potential threat. These threats may include a cyber-attack, terrorism, natural causes (earthquake, flood, hurricane, etc.), extended power or water outage, pandemic, etc. This plan will be put in place so Westward is prepared so that if significant absenteeism or changes in business practices are required business operations can be effectively maintained.

Westward has developed an emergency contacts process as part of the business continuity plan that includes:

- key contacts name and numbers,
- a chain of communications for employees,
- processes for tracking business and employees status,
- A procedure to notify key contacts including both customers and suppliers in the event an outbreak has impacted your company's ability to perform services. This procedure also includes notification to customers and suppliers when operations resume

.

Follow-Up

Following a pandemic event, the person responsible for implementation of the plan should identify learning opportunities and take action to implement any corrective actions. These will be shared with all workers by a bulletin, safety meeting, or other similar method.

Personal Protective Equipment Policy

Where it is not reasonably practicable to protect the health and safety of workers by design of the plant and work processes, suitable work practices or administrative controls, Westward ensures that every worker wears or uses suitable and adequate personal protective equipment.

It is a requirement that all Westward employees must wear appropriate Personal Protective Equipment whenever there is a foreseeable danger. A risk assessment will be completed to determine the appropriate PPE evaluating risks associated with the following hazards:

- Chemicals
- Mechanical
- Biological
- Radiation
- Noise

This approved PPE is available to the workers at no cost. Westward ensures that the PPE is used by the workers and that it is at the worksite before work begins. If the hazard assessment indicates the need for personal protective equipment (PPE) workers must:

- Wear PPE that is correct for the hazard and that protects themselves;
- Properly use and wear the PPE that is in a condition to perform the function for which it was designed.

Workers are trained in the correct use, care, limitations and assigned maintenance of the PPE in the orientation and annually after that. A worker must use and wear properly, the appropriate PPE specified in accordance with the training, standards and instruction received, inspect the PPE equipment before using it, and not use PPE that is unable to perform the function for which it is designed. The use of PPE itself must not endanger the worker and be compatible, so that one item of personal protective equipment does not make another item ineffective. All Employees are responsible to maintain, clean/sanitize, and inspect their own Personal Protective Equipment. If the PPE becomes defective or does not provide the required protection, the worker must return the personal protective equipment to the employer for replacement or repair.

All Westward workers are responsible for providing clothing needed for protection against the natural elements, general purpose work gloves, and appropriate footwear including safety footwear, and safety headgear. Westward will provide, at no cost to the worker, all other items of personal protective equipment appropriate for the risks associated with the workplace and the work.

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Workers Responsibilities

All Westward workers that are required to use personal protective equipment must:

- use the equipment in accordance with training and instruction,
- if exposed to the hazard from moving parts of machinery ensure that their clothing fits closely about the body, and no dangling or protruding neckwear, bracelets, wristwatches, rings or similar articles are worn; and cranial and facial hair is completely confined or cut short.
- inspect the equipment before use,
- refrain from wearing protective equipment outside of the work area where it is required if to do so would constitute a hazard,
- report any equipment malfunction to the supervisor or employer.

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

Head Protection: Employees working in areas where there is potential for injury to the head either from employee initiated impact or impact from falling, flying or thrown objects or other moving objects must wear an appropriate protective head protection. This includes at any project sites, active wellsite or facility and any site where heavy equipment is working. Head Protection must meet or exceed the requirements of CSA Standard Z94.1 05, Industrial Protective Headwear - Performance, Selection, Care and Use or ANSI Z89.1 2003, American National Standard for Industrial Head Protection.

When workers are exposed to electrical hazards, they shall wear safety hats designed for protection from these hazards. Protective headwear must consist of a shell and suspension that is adequate to protect a person’s head against impact and against flying or falling small objects and have a shell which can withstand a dielectric strength test at 20,000 volts phase to ground.

Head Protection must be inspected prior to every use to ensure that it is free from cracks, and/or deep scratches. Head Protection must be worn properly every time. Employees must review their Head Protection as many have dates of discard. Certain types of materials can break down over time and must be replaced prior to date of discard. All Westward employees are required to maintain all Head Protection. Cleaning should be completed using soap and water, never chemicals. Workers are not required or permitted to use any industrial protective headwear that is damaged or structurally modified, has been subjected to severe impact, or has been painted or had been cleaned with solvents.

Foot Protection: Employees must wear the appropriate protective footwear for the work that is being performed. Employee's footwear must be of a design, construction, and material appropriate to the protection required Foot Protection must meet or exceed the requirements of the Canadian Standards Association CSA Standard-Z195.1-02, Guideline on Selection, Care, and Use of Protective Footwear, or CAN/CSA Standard-Z195-02, Protective Footwear or ANSI Standard Z41-1991, American National Standard for Personal Protection - Protective Footwear. Footwear (with safety toes) must be worn when working in areas where there is a danger of foot injuries due to falling or rolling objects, or from an object piercing the sole. If handling chemicals or walking on uneven surfaces the footwear must be chemical resistant and cover the ankles. Steel toed and steeled shank boots are to be worn at **all** sites (except office).

Protective footwear must have a box toe that is adequate to protect the wearer's toes against injury due to impact and is capable of resisting at least 125 joules impact; and with a sole or insole that is adequate to protect the wearer's feet against injury due to puncture and is capable of resisting a penetration load of 1.2 kilonewtons when tested with a DIN standard pin.

Foot Protection must be inspected prior to every use to ensure that it is free from tears, cracks, hoes, or any damage. Foot Protection must be worn properly at all times. If the footwear has laces, they must be completely tied up at all times. All Westward employees are required to maintain all Foot Protection. Cleaning should be completed using soap and water, never chemicals.

Hand Protection: Employees must use appropriate hand protection when their hands are exposed to hazards such as those from skin absorption, exposure to acids, caustics, steam, abrasives, poisons, harmful substances or from extreme heat or cold, except when the use of this equipment introduces greater hazards. Westward provides and requires workers to use suitable and properly fitted hand or arm protection to protect the worker from injury to the hand or arm.

Hand Protection must be inspected prior to every use to ensure that it is free from tears or damage. Hand Protection that has been stained from an unknown source should never be used. All Westward employees are required to maintain their hand protection. Cleaning should be completed using soap and water (never chemicals).

Work gloves must be used when doing any manual labour. When using a power saw (chain saw) a safety mitten must be on the hand holding the upper handle of the saw.

Eye Protection: Employees must wear Safety Glasses in situations where flying objects or particles, splashing liquids (including acids and caustics), molten metal,

ultraviolet visible or infrared radiation, dust, solids, air at high pressure, or liquids other than rain may get in their eyes. Safety glasses are required on all facility sites and where heavy equipment is working, it must meet the requirements of CAN/CSA Z94.3 07, Eye and Face Protectors and CSA Standard Z94.3.1 07, Protective Eyewear: A User's Guide, and that be appropriate for the risk, if there is a risk of irritation or injury to the worker's face or eyes. Safety eyewear must be fitted with side shields when necessary for the safety of a worker.

Eye Protection must be inspected prior to every use to ensure that it is free from cracks or scratches. Eye Protection must be worn properly at all times. If working outside employees may want to wear tinted Eye Protection to protect from UV Rays. All Employees are required to maintain their Eye Protection. Cleaning should be completed using eye protection cleaner as other liquids can scratch, melt, or damage the lenses.

Prescription eyewear may be worn if it is safety eyewear and complies with the regulations and meets CSA Standard Z94.3 Industrial Eye and Face Protectors. Safety eyewear must be fitted with side shields when necessary for the safety of a worker

All employees must inform Westward if they wear Contact Lenses. Westward must document this and advise the Employee of any hazards to the employee’s eye during the work to be performed. Westward must also advise the employee of suitable alternatives to wearing Contact Lenses.

All reasonable steps must be taken to ensure that a worker does not perform electric arc welding if another worker may be exposed to radiation from the arc, unless the other worker is using a suitable industrial eye protector or is protected from the radiation by a suitable screen.

If there is a potential for a substance potentially injurious to the eyes to come into contact with a workers eyes Westward will maintain and immediately provide eyebaths, showers or other means of flushing the eyes.

High Visibility Apparel: All Westward workers exposed to the hazards of vehicles traveling at speeds in excess of 30 km/h (20 mph) must wear high visibility apparel meeting the Type 1 or Type 2 criteria of WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment. A worker whose duties on the work site result in exposure to the hazards of mobile equipment must wear reflective, fluorescent or other highly visible materials meeting at least the Type 3 criteria of WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment.

Limb and Body Protection: If there is a danger that a workers hand, arm, leg or torso may be injured, workers must wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified. Examples of this include: warm weather clothes, chainsaw pants, rattlesnake guards, etc.

When working around sparks, molten metal, radiation, or chemicals that could cause an adverse effect to skin if contact is made workers must wear the Westward provided approved protective clothing or covers or any other safeguard that provides equivalent protection for the worker including impermeable apron, gloves, leg pads, oversleeves, and eye protection.

Where workers are routinely exposed to a hazardous material or substance, Westward will provide and require workers to use, protective clothing, gloves and eyewear or face shields that are impermeable and adequate to prevent exposure of a workers skin and mucous membranes to the hazardous material or substance.

Body Protection Against Flame: Flameproof overalls must be worn in any situation in which there are flammable liquids or flammable gases stored or used or piped on a site. This includes all active wellsites, facilities, and pipelines. Flameproof overalls must meet or exceed CSA and Industry Guidelines. Also, flame resistant clothing should be worn when exposed to: flash fires, molten metal, welding and burning, or similar hot work hazards.

Body Protection must be inspected prior to every use to ensure that it is free from tears or holes. Body Protection must be worn properly at all times. It must be zipped up completely and not left hanging. Never wear Body Protection if it has a stain from an unknown substance. Employees must wear clothing under the Body Protection that is made of flame resistant fabric or natural fibres that will not melt when exposed to heat.

If the risk of heat exposure is greater than that of a likely explosion the risks must be assessed and a determination of whether flameproof overalls are required must be completed and discussed with the Client (Oil Company).

Employees must wear any other Personal Protective Equipment deemed necessary by a Hazard/Risk Assessment. Westward will perform spot checks of workers ensuring that they use the PPE required for the job and are using it correctly. Any worker found not using the proper PPE or using it incorrectly will required to immediately remedy the situation, repeated failure will result in disciplinary action.

In addition, an Employee must not use any Personal Protective Equipment that is in a condition that makes it unable to perform the function for which it is designed.

This personal protective equipment program is reviewed annually.

Purchasing Policy

This policy is intended to provide the information necessary for the effective purchasing activities at Westward. Refer to the Management of Change Policy for information on assessing a new product.

Best Value
Some of the factors to be considered when determining the “best overall value” are:

i) Price
ii) Quality
iii) Warranty
iv) Service
v) Availability
vi) Past Performance, if applicable
vii) References

Guidelines
Our purchasing policy allows for the purchase of items that are safe and environmentally responsible. All purchases will take safety and environmental aspects into account. The following items are of particular concern:

- Tools and equipment that are inherently less noisy and create low amounts of vibration.
- Monitoring equipment.
- Chemicals.
- Fire protection equipment.
- Vehicles or Powered Mobile Equipment.
- Engineered products.
- Personal Protective Equipment (PPE)
    - Respiratory Protection (proper for the task).
    - Fall Protection Equipment
    - Noise Protection
    - All other PPE

All regulated standards must be adhered to including, where applicable OHS, CSA, ANSI, etc.

Emergency Procurements
Emergency procurements may be made when there exists a threat to public health, welfare or safety, provided that such emergency procurement will be made with such competition as is practical under the circumstances. Westward will be notified as soon as possible as to the emergency and the associated purchases.

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Local Advantage
Westward will make every effort to purchase from local businesses if the purchase fits into the category of “best overall value.”

Quality Policy

1. We are committed to deliver quality, defect-free products and services, to our internal and external customers.

2. We are committed to deliver products and services on time to our internal and external customers.

3. We will understand the agreed upon requirements of our customers.

4. We do the job right the first time.

Respiratory Protection Policy

The purpose of this Code of Practice is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for Respiratory - Personal Protective Equipment.

Training and Competency
For PPE to be effective, workers must be trained in its correct use, care, limitations and assigned maintenance. Wearing and using respiratory protection does not eliminate the hazard. If the respiratory protection equipment fails, you will be exposed to the hazard. Respiratory protection must not be altered or removed even if it is uncomfortable.

All Westward workers receive in-house training, by a competent person, prior to wearing respiratory protection at a location. During the training the following items will be addressed:

- Description of different types of respiratory protection, and why the certain respiratory protective equipment is chosen for different tasks.
- Description of toxic, flammable, low oxygen etc. environments,
- General Hazards,
- Instruction on the use, cleaning, and care of the respiratory protective equipment,
- Information about the airborne contaminants, including potential health effects and warning properties,
- Limits of protection,
- Pre use and periodic inspections,
- Maintenance and cleaning,
- Methods of testing the equipment to ensure it is functioning properly,
- Instructions on proper donning and doffing of equipment,
- Procedures for emergency response, and
- Instructions on fit testing.

The worker must demonstrate understanding of the training provided by testing, maintaining, and cleaning the respiratory protective device, and by using the respiratory protective device safely. All training includes practical experience by the worker in an uncontaminated environment.

The training session includes a one on one determination of whether the worker has a physical or mental condition that prevents the ability to use the equipment properly. If it is determined the person is unable to wear respiratory protection alternate job tasks will be assigned. All employees will require a medical prior to

using respiratory protective equipment. If the employee has a problem with claustrophobia he/she will be unable to wear the respiratory equipment.

Workers must be competent when working with respirators. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Training and retraining requirements are reviewed periodically and/or whenever there are changes in the products used or the processes involved.

Awareness training in respiratory protection is given to all field employees through Enform during the H_2S Alive course (or equivalent), updated every 3 years.

All training documents must be on file.

Respiratory Equipment

All Westward owned respiratory protective equipment is approved by NIOSH. The appropriate respiratory protective equipment is chosen in consultation with the worker and the occupational health and safety committee or the worker health and safety representative. We do not permit employee owned equipment to be used on our worksites. The CSA Z94.4-02, Selection, Use and Care of Respirators requirement is followed by all workers.

Respiratory protective equipment must always be stored in a readily accessible location and in a manner that prevents its contamination. It is maintained in clean and sanitary condition, inspected before and after use, and serviced properly.

The air delivered to a person wearing a self-contained breathing apparatus or remote supplied air apparatus must be as free of contaminants as possible. Contaminants may harm the person breathing the air or may damage the respiratory protective equipment being used. As a result, Westward will ensure the air is of a quality that complies with Table 1 of CSA Standard Z180.1-00 (R2005), *Compressed Breathing Air and Systems.* Westward will also ensure that the air does not contain a substance in a concentration greater than 10 percent of its occupational exposure limit. Standard air compressors will not be used. Only certified technicians may refill cylinders.

The appropriate respiratory protective equipment to protect the worker from the identified hazards including concentrations of an air contaminant in excess of an applicable exposure or excursion limit, or an oxygen deficient atmosphere must be

used. This equipment will be available at the work site when the potential requirement exists.

Code of Practice

Prior to beginning work, all specific hazards that would or may require respiratory protection must be identified. A hazard assessment must take into account any hazardous items in the workplace including:

- Airborne contaminants;
- Biological contaminants;
- Dust;
- Fumes;
- Gas;
- Mist;
- Aerosol;
- Smoke;
- Vapor.

These hazards can cause an atmosphere to contain less than 19.5% or more than 23% by volume of oxygen, elevated levels of toxic chemicals or increased particulate matter.

Whether the contaminant is harmful or just offensive to the worker Westward will provide an approved respiratory protection device for use by the worker.

Methods of Control

The following methods to ensure a safe atmosphere should be looked at before the decision to use respiratory protection is made:

- **Elimination** means to remove the toxic hazard from the workplace. This is the most difficult method of control.
- Consider **Engineering** methods such as local exhaust ventilation, addition of clean air to oxygen-deficient spaces, enclosure of a process producing the airborne contaminant, substitution of a less hazardous material, modifications to plants, equipment, ventilation systems, and processes that reduce the source of exposure.
- If engineering methods cannot be used then **administrative** procedures such as safe work procedures may be used when air contaminants are present. Alter the way the work is done, including timing of work, policies and other rules, and **work practices** such as standards and operating procedures (including training, housekeeping, equipment maintenance, and personal hygiene practices).

Often a combination of the above methods, along with Respiratory Protection is the safest control.

Determination Process

A hazard assessment to determine the degree of danger to a worker at a work site and whether the worker needs to wear respiratory protective equipment must be performed. The determination process assesses the nature of the contaminants, the concentration or likely concentration of any airborne contaminants, the duration or likely duration of the workers exposure, the toxicity of the contaminants, the concentration of oxygen, the warning properties of the contaminates and the need for emergency escape. Respiratory protection must be worn if a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits or the atmosphere has or may have an oxygen concentration of less than 19.5% by volume or more than 23 % by volume.

It is better to wear respiratory equipment that protects more than you need, than not enough.

Selecting the Proper Respiratory Protective Equipment for the Job

The most appropriate respiratory protective equipment for the hazards present will be used. A respirator must be selected based on the following two conditions. One type is for conditions that may be Immediately Dangerous to Life or Health (IDLH). The other category is for non-IDLH.

IDLH

If it is determined that breathing conditions at a work site are or may become immediately dangerous to life or health all workers must wear self-contained breathing apparatus or an airline (atmosphere supplying) respirator that meets regulations. An oxygen-deficient or highly toxic (ie. H_2S at unknown concentrations) atmosphere is considered IDLH. No exceptions to wearing a full face piece positive pressure respirator which is either an SCBA, or an airline respirator with an auxiliary self - contained air cylinder of sufficient capacity to permit the worker to escape unassisted from the contaminated area if the air supply fails.

Westward will provide the worker with, and the worker must use an approved atmosphere supplying respirator that is an open circuit Self Contained Breathing Apparatus that operates in a pressure demand or other positive pressure mode, has a minimum rated capacity of 30 minutes, is sufficiently charged to enable the worker to perform the work safely, and is equipped with a low pressure warning device or an escape respirator.

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During a task that has IDLH hazards a second worker, who is suitably equipped and trained, must be present and in communication with the worker at all times and suitably equipped personnel who are trained and capable in rescue procedures and are fully informed of the hazards are readily available to rescue the endangered worker immediately if the workers atmosphere supplying respirator fails or the worker becomes incapacitated for any other reason.

Non-IDLH

The following factors determine the choice of respiratory protective equipment for non-IDLH situations. These factors need to be reassessed with every location, product, or process change.

- Identification of airborne contaminant(s). The potential contaminants need to be known - so the most appropriate filter is selected.
- Concentration of airborne contaminant(s). The average workday concentration and the highest short-term concentrations should be determined. Occupational Exposure Limits (OELs) should also be determined.
- Oxygen deficiency. This situation arises when the air has a reduced oxygen content that is hazardous to health, but is not IDLH. An atmosphere-supplying respirator must be used.
- Physical form. Identify all the physical forms that may be present including dust, mist, fumes, fiber, gas, vapor, etc.
- Length of time during which the respirator will be needed. Certain types are effective for longer periods of time than others.
- Toxic properties. By recognizing the full hazard, a full-face piece rather than a half mask respirator should be chosen for protection against eye irritants.
- Warning properties. If workers are aware of a substance and they detect a smell or their nose, eyes or throat become irritated, they will be aware that there is a poor fit of the mask or that the cartridges are exhausted.

Fit Testing

All employees must be clean-shaven and fit tested (both quantitative and qualitative) before they are approved by Westward to use a respirator. Respiratory protective equipment depends on an effective facial seal for its safe use. All respiratory equipment must be the proper size and make an effective seal with the facial skin of the worker. The CSA requirements Z94.4-02 Selection, Use and Care of Respirators is used and trained during the fit test procedure.

Proper fit testing and equipment selection must take into consideration hot, cold, or confined working conditions. If the worker wears glasses alternative equipment

may be required. If a satisfactory fit cannot be achieved, a different type of respirator must be used.

Except for specialty eyewear for use with positive pressure full-face piece respirators, nothing is permitted which intrudes between the face piece and the face, or which interferes with the face seal of the face piece.

A negative or positive user seal check in accordance with CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators must be completed prior to each use of respiratory protection.

Westward will provide a suitable and adequate approved respiratory protective device for use by the worker from one or more airborne contaminants; with a face piece that is the proper size and where a tight fit is essential to the proper functioning of the respiratory protective device, makes an effective seal to the facial skin of the worker. Where a tight fit is essential to ensure the worker is not exposed to an extent that may pose a risk of significant harm to the worker, the worker has been fit-tested by a competent person in an approved manner.

Maintenance, Storage, and Use of Respiratory Protective Equipment

Respiratory Protective Equipment must be inspected for damage or deterioration, tested, and cleaned according to manufacturer's instructions after each use.

- If more than one person might be sharing a respirator, it must be sanitized between uses.
- Cartridges and canisters that are near the end of their service life require replacement.
- Worn or damaged valves, straps and other parts should be replaced exactly as specified by the manufacturer. Repairs on self-contained breathing apparatus must only be done by persons trained and certified by the manufacturer.
- Equipment should be stored in ready-to-use condition in a convenient, clean and dry location and not exposed to extremes of temperature or to any contaminant that may inactivate the respiratory protective device.
- Disposable respiratory equipment should be disposed of after use according to manufacturer's instructions.

Inspection of compressed air cylinders must be done in accordance with CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators. Compressed air cylinders must be hydrostatically tested in accordance with CSA Standard CAN/CSA-B339-96, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods. Self-contained breathing apparatus, including regulators, must be serviced and repaired by qualified persons.

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Emergency Respiratory Equipment
Respiratory protective equipment that is not used routinely but is kept for emergency use is thoroughly inspected at least once every calendar month and after each use by a competent worker to ensure it is in satisfactory working condition. The date of every inspection made and the name of the person who made the inspection must be recorded and conspicuously displayed at the location where the respiratory protective device is stored and a competent person corrects any defects identified during the inspection carried out immediately or takes it out of service.

Quality of Breathing Air
All air used in a self-contained breathing apparatus or airline meets the requirements of Table 1 & 2 of CSA Standard Z180.1-00, does not contain any substance in a concentration that exceeds 10 percent of its occupational exposure limits.

Enforcement for Not Wearing Respiratory Equipment
All Westward workers must use the appropriate respiratory equipment provided. If the worker does not wear the Respiratory Equipment they may be subject to disciplinary actions. If you have a reason that you cannot wear respiratory equipment that day, please notify your supervisor immediately.

Records
The following records are maintained at Westward:

- fit test results and worker instruction,
- maintenance for air supplying respirators, powered air purifying respirators, and for sorbent cartridges and canisters, and
- maintenance and repairs for each self-contained breathing apparatus and all air cylinders in accordance with the requirements of CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators.

Right to Refuse Dangerous Work Policy

Imminent (unusual) Danger – means, in relation to any occupation, a danger that is not normal for that occupation, or a danger under which a person engaged in that occupation would not normally carry out.

Responsibilities

The President is responsible for the overall administration of this policy and is specifically responsible to:

- Monitor and evaluate compliance to this policy.
- Review all work refusal situations and deal specifically with those which cannot be resolved at the project location.
- Meet with government, client, and any other outside agency directly affected by or involved in a refusal to work situation.
- Ensure any legislated requirements are incorporated into company procedures.

The Supervisor is responsible to:

- Review the standard practice and train new workers on the work refusal procedures at the time of hire and at least annually. This training includes all workers in his or her area of responsibility.
- Immediately investigate, in the presence of the worker, any work refusal situation.
- Take the necessary corrective actions to remedy the situation.
- Seek the assistance of an HSE professional or any other specialist, (professional engineer, occupational hygienist, vendor representative, etc.) that may be required to resolve the situation.
- Create and maintain a written record of all the facts and circumstances identified during the investigation.
- Advise the Client of all work refusal situations as soon as reasonably practicable.
- Provide the written report to the affected worker(s).
- Assign worker(s) to other work activities pending investigation.

The Worker is responsible to:

- Promptly notify the Supervisor of any situation where it is believed imminent danger exists.
- Cooperate in the investigation of all imminent danger situations.
- Advise the Supervisor if there are reasonable grounds to believe a danger still exists after the initial investigation and subsequent corrective action.
- Return to work after corrective action has been taken.

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No worker will:

- Carry out any work if, on reasonable and probable grounds, the worker believes that there exists an imminent danger to the health or safety of that worker,
- Carry out any work if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site, or
- Operate any tool, appliance or equipment if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site.

Notification of Refusal of Work

All workers are provided training in the work refusal procedures. Once a worker has decided to stop work based on the task, conditions of site or tools, and/or hazards they must, as soon as practicable, notify Westward of the refusal and the reason for the refusal to do the work. At this point the work must stop, and may not resume, until the unsafe work concern has been addressed.

Depending on the circumstances, you may be required to remain at the work site and be temporarily assigned to other work; only accept work you are capable of performing. There will be no deduction of pay and Westward will not tolerate any form of retribution or intimidation directed at any individual for exercising their right to refuse unsafe work.

Investigating and Mitigating

As soon as notified Westward will immediately investigate the situation. If it is as simple as a common tool malfunctioning place a RED Out of Service Tag on it and use another tool. No other person is allowed to complete the task unless trained and competent. All actions must be taken to eliminate the imminent danger. No worker will perform or cause to perform the work or use or operate the tool, appliance, or equipment.

A written record of the worker's notification will be prepared and include the conclusion of the investigation and actions taken. The worker(s) who gave the notification will also get a copy of the record.

After the Inspection

If controls have been put in place or it was deemed that the activity does not constitute Imminent Danger, the work will continue. If you think that imminent danger still exists, you are advised to discuss this with management; if the situation cannot be resolved an Occupational Health and Safety Office will be contacted.

It is your responsibility and a job requirement to stop any task that may be considered imminent danger. You will not be disciplined for stopping work. That is the law!

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Security Policy

Security is becoming a critical item that needs to be managed by companies. At Westward we have to ensure that we have security over the following areas:

- Physical Security including property, vehicles, tools, etc against theft, vandalism, natural disaster, manmade catastrophes, and accidental damage.
- Personal Security including violence and harassment.
- Information Security including release of company, Client, and personal information.
- Information Technology Security including email, internet

Training
All Westward workers are trained in this policy including security theft and awareness and workplace violence during Orientation.

Guidelines
The following guidelines have been put in place to create awareness of the security measures at Westward.

Physical Security – All equipment, property, vehicles, tools, etc must be locked when they are not being directly supervised. Take notice of people who may not belong and report this to your supervisor.

Personal Security – There is always a risk of violence from coworkers, supervisors, Clients, Landowners, etc. Westward will inform employees if they are working in an area where there is a potential for violence and identify any risks that are specific to that area, they will also inform workers who may be exposed to the risk of violence of the nature and extent of the risk. This includes providing information related to the risk of violence from persons who have a history of violent behavior and whom workers are likely to encounter in the course of their work.

Information Security - At Westward it is a job requirement to ensure that information obtained while on a job (whether it be company, Client, or personal information) must remain confidential. Information will only be given to those who need the information to perform their job tasks.

Information Technology Security – It is recognized that confidential information is sent via email, internet, cell phone, etc every day. The following are ways to reduce the potential for the undesired release of information:

- Passwords: Change these frequently. Choose passwords that are difficult to guess at. Try using number and letter combinations. Do not give out your passwords.
- Read over all emails thoroughly prior to sending. Ensure they are written to the security level of the recipient. Double check the recipients email address (and that of everyone who is cc'd).
- Log off your workstation and close all password protected files prior to leaving you workstation.
- Ensure adequate virus protection is utilized.

Reporting Security Incidents
If you observe anything unusual, *tell your supervisor*. All security incidents that affect people, premises, information or customer reputation will be reported to the management of Westward. All reported security incidents that affect our Clients will also be reported promptly to our Client by the Management of Westward.

Investigating Security Incidents
All security incidents or potential incidents will be investigated and corrective action will be taken to prevent recurrence.

Failure to comply with this security policy may lead to disciplinary action.

Subcontractor Management Policy (SMP)

All companies employed by Westward have responsibilities as described in this Subcontractor Policy. Westward is responsible for providing a safe and healthy work environment for its workers and subcontract workers. All Westward subcontractors will be held to the same high standard our Clients require of us.

Responsibilities

Westward Safety Managers or Supervisors Responsibilities

- Communicate Health, Safety & Environment requirements to the sub-contractor prior to start work.
- Ensure the work is to be conducted in a safe and responsible manner in compliance with OH&S regulations and Westward Safety & Environment Standards.
- Orientate subcontractors to the worksite.
- Ensure that subcontractors are aware of incident reporting requirements. If a subcontractor is involved in an incident, Westward is responsible for reporting the incident to the Owner Client and ensuring the incident is investigated.
- Follow Westward subcontractor approval plan.

Subcontractors Responsibilities

- Meet or exceed all applicable federal, and provincial Health and Safety Regulations.
- Wear the necessary personal protective equipment for the identified hazards.
- All subcontracts must have a valid Worker's Compensation Board (WCB) account in good standing for the province in which the work is being performed.
- Carry valid insurance for vehicles, equipment, general liability, errors and omissions,
- Report all incidents to Westward,
- Have all safety training tickets available for inspection.

Subcontractor Approval Plan

Prior to the onset of every job where a subcontractor will be used the following items must be verified:

- Worker's Compensation Board (WCB) account in good standing for the province in which the work is being performed. Subcontractors who are not required to have Workers Compensation coverage must obtain approval from their Owner Client(s) before they are allowed to enter the work site.
- Verification that the subcontractors insurance meets the requirements that our clients set out.

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- OHS Statistics for all work performed by the subcontractor for the current and prior 2 years and review of WCB Rate Sheets..
- Verification that all required safe work procedures, training, and levels of competency are met to safely perform the task they will be performing. If you are not confident of subcontractors' ability to perform the task safely do not allow the work to continue.

If a subcontractor does not have a Health and Safety Manual, Westward will ensure the subcontractor is aware of applicable Health and Safety policies, procedures, and regulations. If the subcontractor works for Westward for extended periods he/she will be fully integrated into our safety program as if they were an employee. For all short term subcontractors an Orientation will be completed and procedures will be developed, if required.

The administrative step of the above verification must be done before the work is to begin. Only contractors that meet our highest standards will be approved to work as a subcontractor for Westward. These are the minimum requirements to be completed prior to hiring a subcontractor. Field supervisors are required to choose contractors based on their safety measures, not just rates and availability.

Communication Between Westward and our Subcontractors
It is the responsibility of Westward to communicate hazards to all workers whether those workers are employees, subcontractors, or our clients. All subcontractors must ensure any hazards are communicated to Westward. This is done by including all workers (including subcontractors) in the following safety meetings:

Safety Orientations
All subcontractors will be required to go through the orientation process for each client they will be working for. This may involve sitting through video presentations, writing out all pertinent ticket expiries, discussing site specific issues with the Client, etc. The Owner Client's Drug and Alcohol policy will also be discussed; all subcontractors must adhere to the requirements of the Drug and Alcohol policy. This orientation may be required to be repeated at a frequency specified by the client.

Pre-Job Meetings or Kick-off Meetings
Prior to the commencement of any job, Westward meets with everyone on site, including subcontractors. This meeting will define the scope of the project and act as a general quality control and safety overview for the job. If a job has become extended or has had the scope change this meeting will be repeated.

Daily Tail Gate Meetings and Hazard Assessments
The subcontractor is required to meet with Westward prior to the start of each workday and anytime as hazards change. A Work Site Hazard Assessment must be performed with worker involvement.

Job Safety Inspections and Job Hazard Analysis
Depending on the level of risk and the length of the job different types of Inspections and Hazard Analysis will be performed. Some inspections including daily equipment and vehicle inspections will be planned, other inspections will be unplanned.

The attendance at all communication meetings will be taken. All documentation will be kept on file.

Non - Compliance with the OHS/Clients Standards or Regulations
If during the course of the work at Westward the supervisor notes situations of non-compliance with OH&S or the Health, Safety & Environment program, this will be communicated verbally and followed up in writing. Failure to correct the violation or continued non-compliance is considered a violation of the sub-contract and could lead to termination of contract.

The subcontractor shall be notified, in writing, regarding Health & Safety deficiencies if these deficiencies are not corrected or continue, or imminent danger is observed, a Westward supervisor shall issue an immediate order to stop work. Should this be necessary, the Supervisor will then call a meeting with the supervisors for the subcontracting company. Meeting minutes shall be taken and continued non-compliance may result in termination of employment.

Post-Job Safety Performance Reviews
After each project that a subcontractor works on for Westward it is important to rate the success of the contractor taking into account items such as:

- Quality of completed project
- Cost of completed project
- Timing of completed project
- Safety Statistics
- Attitude of all subcontractors
- Compliance with site safety rules (wearing PPE and following safe work procedures)
- And overall Success of the project.

This information must be documented and used to choose contractors for future work. If a subcontractor receives a less than adequate safety and performance

rating that contractor will require strict controls and supervision to work for Westward again. All reviews will be summarized and made known to the subcontractor and all in-house Project Managers.

Supplier Code of Conduct Policy

Westward is committed to ethical behavior and values. Our code of conduct establishes a corporate and working culture that enhances the value of ethics and promote the individual responsibility as well. The cornerstone in preventing fraud is the creation of an environment that fosters morality, integrity and business conduct.

Fraud – Any illegal acts characterized by deceit, concealment, or violation of trust. Fraud is often perpetrated to obtain money, property, or services; to avoid payment or loss of services; or to secure personal or business advantage. Fraud may involve:

- falsification or alteration of accounting records and expense records,
- claiming extra hours or expenses,
- misappropriation of assets or theft (including using a company card for personal or unauthorized use),
- suppression or omission of transactions from records or recording of transactions without substance (including on timesheets),
- falsified sales with the intention of collecting payment,
- misapplying corporate or bank funds,
- manipulation of information system applications and data for personal advantage.

Ethics – Moral principles that govern a person's behavior or the conducting of an activity.

Corruption – The misuse of public power for private profit, or the misuse of entrusted power for private gain.

Bribery - The offer, promise, or payment of cash, gifts, or even excessive entertainment, or an inducement of any kind offered or given to a person in a position of trust to influence that person’s views or conduct or to obtain an improper advantage. Bribery and corruption can take many forms, including the provision or acceptance of:

- Cash payments
- Phony jobs or ‘consulting’ relationships
- Kickbacks
- Charitable or political contributions
- Social benefits
- Gifts, travel, hospitality, or reimbursement of expenses

Human Rights - Human rights are protected in Canada. Discrimination is NOT acceptable on any worksite. Workers are trained on:

- Their labor rights,
- Preventing discrimination in the workplace,
- General Human rights.

Forced Labor includes work performed under the threat of taking away freedoms (taking a passport, threatening harm to the worker or family, under the threat of punishment, etc.). At Westward we do not allow forced labor, child labor, or compulsorily labor at any time.

Training

All Westward workers are trained in this policy during Orientation and annually after that.

Guidelines

The following guidelines have been put in place to create awareness of the code of practice at Westward. All workers at Westward are expected to:

- Always act in good faith in their relationships with other people when they interact on our company behalf.
- Comply with all applicable legal regulations, legal statutes, and with standards of equity and justice.
- Be truthful on all documents including timesheets, expense records, safety/quality forms, heath insurance claims, etc.
- Maintain confidentiality of Westward data and that of our clients.
- Follow approved communications protocols and policies in regard to public comments, including media contact and the use of social media.
- Not use their position to benefit themselves, family members, or friends.
- Refuse to accept any ‘kickbacks’ or bribes. Report any offers of these to your supervisor.
- Notify a supervisor of any observed acts or suspicion of fraud or unethical infractions, if it is your supervisor that is the suspect individual do not contact them directly and go to their superior.
- Know that the information provided will be kept in strict confidence. Workers will not be subject to retaliation.
- Ask a supervisor if you are unsure about this policy and its requirements.

Reporting Fraud/Ethics Incidents - Whistleblowing

If you observe anything unusual, *tell your supervisor*. All fraud/ethics incidents that affect people, premises, information or customer reputation will be reported to the management of Westward. All reported fraud incidents that affect our Clients will also be reported promptly to our Client by the Management of Westward.

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Whistleblowing is the act of drawing public attention, or the attention of an authority figure, to perceived wrongdoing, misconduct, unethical activity within an organization; the disclosure may be internal or external. Wrongdoing may include:

- Breaking a law
- Misuse of funds or assets
- Gross mismanagement
- Act or omission that creates a danger to the life, health or safety of persons, or to the environment
- Serious breach of a code of conduct
- Knowingly directing or counselling a person to commit a wrongdoing

Additionally, proven fraud or suspected fraud will be reported to the appropriate authorities, at the earliest possible opportunity.

Investigating Fraud Incidents

All fraud/ethics incidents or potential incidents will be investigated and corrective action will be taken to prevent recurrence. If required, the police or other authorities will assist or take over the investigation. Corrective action may include:

- Suspension/Termination
- Criminal charges
- Prison
- Restitution

Discipline

Any employee who violates the terms of this Policy will be subject to disciplinary action, up to and including immediate termination. Any employee who has direct knowledge of potential violations of this Policy but fails to report such violation to Westward management will be subject to disciplinary action as well.

Failure to comply with this policy may lead to disciplinary action.

Thermal Exposure Policy

The purpose of this thermal exposure policy is to protect all Westward employees and contractors from exposure from cold and hot environments, and increase worker awareness about hot and cold environments. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for this thermal exposure policy.

The feeling of hot or cold depends on:

- Air temperature;
- Relative humidity of air;
- Presence of hot or cold objects in the surrounding area;
- Presence of air movement (breeze, ventilation);
- Physical exertion;
- Clothing.

Inexperienced workers may need special attention as they may continue to work beyond the point at which signs of heat strain appear. People are generally unable to notice their own heat stress related symptoms. Their survival depends on their co-worker's ability to recognize these symptoms and seek timely first aid and medical help.

Education

Workers and supervisors involved with work in hot or cold environments are informed during orientation and ongoing as required (at the beginning of each season) about symptoms of adverse effect exposure to temperatures, proper clothing habits, safe work practices, physical fitness requirements for work in extreme temperatures, and emergency procedures in case of hot or cold injury. While working in extreme temperatures, a buddy system should be used. Look out for one another and be alert for the symptoms of hypothermia and heat stress.

Heat Exposure Limits

All Westward workers and subcontractors must not be exposed to levels that exceed those listed below in the ACGIH Standard. Clothing corrections must be applied in accordance with the heat stress and strain section of the ACGIH Standard below:

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Table 1: ACGIH Screening Criteria for Heat Stress Exposure (WBGT values in °C) for 8 hour work day five days per week with conventional breaks

Allocation of Work in a Work/Rest Cycle	Acclimatized				Action Limit (Unacclimatized)			
	Light	Moderate	Heavy	Very Heavy	Light	Moderate	Heavy	Very Heavy
75-100%	31.0	28.0	--	--	28.0	25.0	--	--
50-75%	31.0	29.0	27.5	--	28.5	26.0	24.0	--
25-50%	32.0	30.0	29.0	28.0	29.5	27.0	25.5	24.5
0-25%	32.5	31.5	30.5	30.0	30.0	29.0	28.0	27.0

Notes: Assumes 8-hour workdays in a 5-day workweek with conventional breaks. TLVs assume that workers exposed to these conditions are adequately hydrated, are not taking medication, are wearing lightweight clothing, and are in generally good health.

Examples of workloads:

Rest - sitting (quietly or with moderate arm movements)

Light work - sitting or standing to control machines; performing light hand or arm work (e.g. using a table saw); occasional walking; driving

Moderate work - walking about with moderate lifting and pushing or pulling; walking at moderate pace; e.g. scrubbing in a standing position

Heavy work - pick and shovel work, digging, carrying, pushing/pulling heavy loads; walking at fast pace; e.g. carpenter sawing by hand

Very Heavy - very intense activity at fast to maximum pace; e.g. shovelling wet sand

The ACGIH exposure limits are intended to protect most workers from heat-related illnesses. The limits are higher than they would have been if they had been developed to prevent discomfort. If you are wearing heavier clothing then the exposure limit should be lowered. ACGIH recommendations for such situations are suggested in Table 2.

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Table 2: Correction of TLV for Clothing (Values cannot be added when wearing multiple layers)	
Clothing Type	WBGT Correction (°C)
Work clothes (long sleeve shirt and pants)	0
Cloth (woven material) coveralls	0
SMS (Spunbonded - Meltdown - Spunbonded) polypropylene coveralls	+ 0.5
Polyolefin coveralls	+ 1
Double-layer woven clothing	+ 3
Limited-use vapour-barrier coveralls	+ 11

Note: These values are not to be used for completely encapsulating suits. Coveralls assume only modest clothing is underneath, not a second layer of clothing.

For example, an acclimatized worker wearing double-layer woven clothing doing moderate work would have a corrected exposure level of: 30.0 + 3 = 33ºC, which would lower his or her allowable exposure to 0-25% work (from 25-50% work)

Heat Stress Assessment and Control Plan

When the hazard of extreme heat is present Westward will:

- Conduct a heat stress assessment to determine the potential for hazardous exposure of workers;
- Develop and implement a heat stress exposure control plan.

Heat Stress Controls

If a worker is or may be exposed to extreme levels of heat, engineering controls will be implemented to reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard. If the above action is not practicable, Westward will reduce the exposure of workers to levels below those listed in the screening criteria for heat stress exposure in the heat stress and strain section of the ACGIH Standard by providing; administrative controls, including a work-rest cycle, or personal protective equipment, if the equipment provides protection equally effective as administrative controls.

The risk of heat-related illnesses can be reduced by:

- Engineering controls to provide a cooler workplace;
- Safe work practices to reduce worker exposure;
- Training employees to recognize and prevent heat illnesses.

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Engineering Controls

Engineering controls are effective in reducing excessive heat exposure.

- *Reducing Metabolic Heat Production (heat produced by the body):* Automation and mechanization of tasks minimize the need for heavy physical work and the resulting buildup of body heat.
- *Reducing the Radiant Heat Emission from Hot Surfaces:* Covering hot surfaces with sheets of low emissivity material such as aluminum or paint that reduces the amount of heat radiated from this hot surface into the workplace.
- *Insulating Hot Surfaces*: Insulation reduces the heat exchange between the source of heat and the work environment.
- *Shielding*: Shields stop radiated heat from reaching workstations. Two types of shields can be used. Stainless steel, aluminum, or other bright metal surfaces reflect heat back towards the source. Absorbent shields, such as water-cooled jackets made of black-surfaced aluminum, can effectively absorb and carry away heat.
- *Ventilation and Air Conditioning:* Ventilation, localized air conditioning, and cooled observation booths are commonly used to provide cool workstations. Cooled observation booths allow workers to cool down after brief periods of intense heat exposure while still allowing them to monitor equipment.
- *Reducing the Humidity:* Air conditioning, dehumidification, and elimination of open hot water baths, drains, and leaky steam valves help reduce humidity.

Personal Protection Equipment – for Heat

Ordinary clothing provides some protection from heat radiated by surrounding hot surfaces. Specially designed heat-protective clothing is available for working in extremely hot conditions. In hot and humid workplaces, light clothing allows maximum skin exposure and efficient body cooling by sweat evaporation.

Workers who move back and forth between very hot, dry indoor environments and cold winter outdoor environments find that long underwear may moderate the extremes in temperatures.

Eye protection which absorbs radiation is needed when the work involves very hot objects, such as molten metals and hot ovens.

Work that requires the wearing of impermeable clothing presents an added heat burden as the clothing reduces the body's ability to dissipate heat. Under such circumstances, it is often necessary to reduce the exposure limit values of WBGT to levels below those appropriate for workers wearing light clothing.

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Cool Potable Water
Westward provides and maintains an adequate supply of cool potable water close all work areas for the use of a heat exposed worker. All trucks must have a case of water available to all workers when working outside.

Cold Stress Assessment and Exposure Plan
When the hazard of extreme cold is present Westward will:

- Conduct a cold stress assessment to determine the potential for hazardous exposure of workers;
- Develop and implement a cold exposure control plan.

Cold Stress Controls
If a worker is or may be exposed extreme levels of cold, engineering controls will be implemented to reduce the exposure hazard to levels above those classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard. If the above action is not practicable, the exposure hazard will be reduced by providing effective administrative controls, or personal protective equipment (if the equipment provides protection equally effective as administrative controls).

Workers at risk of suffering due to the cold include the following outdoor workers:

- Road builders, house builders and other construction workers,
- Workers on all Oil & Gas sites;
- Hydro and telecommunications linemen,
- Police officers, fire fighters, emergency response workers, military personnel,
- Transport workers, bus and truck drivers,
- Workers in refrigerated warehouses,
- Meat packaging and meat storage workers.

Working in cold environments can be not only hazardous to your health but also life threatening. It is critical that the body be able to preserve core body temperature steady at + 37°C (+ 98.6°F). This thermal balance must be maintained to preserve normal body functioning as well as provide energy for activity (or work!). The body's mechanisms for generating heat (its metabolism) have to meet the challenge presented by low temperature, wind, and wetness - the three major challenges of cold environments.

Prevent contact of bare skin with cold surfaces (especially metallic) below -7°C as well as avoiding skin contact when handling evaporative liquids (gasoline, alcohol, cleaning fluids) below 4°C. Sitting or standing still for prolonged periods should also be avoided.

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Balanced meals and adequate liquid intake are essential to maintain body heat and prevent dehydration. Eat properly and frequently. Working in the cold requires more energy than in warm weather because the body is working to keep the body warm. It requires more effort to work when wearing bulky clothing and winter boots especially when walking through snow. Drink fluids often especially when doing strenuous work. For warming purposes, hot non-alcoholic beverages or soup are suggested. Caffeinated drinks such as coffee should be limited because it increases urine production and contributes to dehydration. Caffeine also increases the blood flow at the skin surface which can increase the loss of body heat.

Alcohol should not be consumed as it causes expansion of blood vessels in the skin (cutaneous vasodilation) and impairs the body's ability to regulate temperature (it affects shivering that can increase your body temperature). These effects cause the body to lose heat and thus increase the risk of hypothermia.

Personal Protective Equipment (PPE)
A worker who is or may be exposed must wear adequate insulating clothing and personal protective equipment.

Clothing
Protective clothing is needed for work at or below 4°C. Clothing should be selected to suit the temperature, weather conditions (e.g., wind speed, rain), the level and duration of activity, and job design. These factors are important to consider so that you can regulate the amount of heat and perspiration you generate while working. If the work pace is too fast or if the type and amount of clothing are not properly selected, excessive sweating may occur. The clothing next to body will become wet and the insulation value of the clothing will decrease dramatically. This increases the risk for cold injuries.

Clothing should be worn in multiple layers, which provide better protection than a single thick garment. The air between layers of clothing provides better insulation than the clothing itself. Having several layers also gives you the option to open or remove a layer before you get too warm and start sweating or to add a layer when you take a break. It also allows you to accommodate changing temperatures and weather conditions. Successive outer layers should be larger than the inner layer; otherwise the outermost layer will compress the inner layers and will decrease the insulation properties of the clothing. The inner layer should provide insulation and be able to "wick" moisture away from the skin to help keep it dry. Thermal underwear made from polyesters or polypropylene is suitable for this purpose.

For work in wet conditions, the outer layer of clothing should be waterproof. If the work area cannot be shielded against wind, an easily removable windbreak

garment should be used. Under extremely cold conditions, heated protective clothing should be made available if the work cannot be done on a warmer day.

Footwear
Felt-lined, rubber bottomed, leather-topped boots with removable felt insoles are best suited for heavy work in cold since leather is porous, allowing the boots to "breathe" and let perspiration evaporate. Leather boots can be "waterproofed" with some products that do not block the pores in the leather. However, if work involves standing in water or slush (e.g., fire fighting, farming), the waterproof boots must be worn. While these protect the feet from getting wet from cold water in the work environment, they also prevent the perspiration to escape. The insulating materials and socks will become wet more quickly than when wearing leather boots and increase the risk for frostbite.

Socks
You may prefer to wear one pair of thick, bulky socks or two pairs - one inner sock of silk, nylon, or thin wool and a slightly larger, thick outer sock. Liner socks made from polypropylene will help keep feet dry and warmer by wicking sweat away from the skin

Always wear the right thickness of socks for your boots. If they are too thick, the boots will be "tight," and the socks will lose much of their insulating properties when they are compressed inside the boot. The foot would also be "squeezed" which would slow the blood flow to the feet and increase the risk for cold injuries. If the socks are too thin, the boots will fit loosely and may lead to blisters.

Face and Eye Protection
If work takes place outdoors in snow or ice covered terrain where excessive ultraviolet light, glare or blowing ice crystals present a risk of injury to the eyes, workers must wear eye protection appropriate to the hazards.

In extremely cold conditions, where face protection is used, eye protection must be separated from the nose and mouth to prevent exhaled moisture from fogging and frosting eye shields or glasses. Select protective eye wear that is appropriate for the work you are doing, and for protection against ultraviolet light from the sun, glare from the snow, blowing snow/ice crystals, and high winds at cold temperatures.

Removal and Treatment
If a worker exposed to hot or cold shows signs or reports symptoms of heat or cold stress or injury, the worker must be removed from further exposure and treated by an appropriate first aid attendant, if available, or a physician.

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Vehicle Usage Policy

The purpose of this policy is to ensure the safe, efficient, and environmentally responsible use of vehicles by employees in the course of their work. This policy aims to protect employees, the public, and the environment from risks associated with vehicle usage.

This policy applies to all employees, contractors, and visitors who operate or travel in company-owned, leased, or rented vehicles, as well as personal vehicles used for company business.

Responsibilities:
The following outlines the responsibilities for this policy,

- **Management**: Ensure the implementation and enforcement of this policy. Provide necessary training and resources.
- **Employees**: Comply with all aspects of this policy and report any incidents or safety concerns. Keys will be assigned to employees and employee will be held responsible if lost/stolen or damaged. Furthermore, the employee is responsible for the cleanliness of the vehicle and weekly inspections. Any costs to clean your assigned vehicle could lead to deductions for the cost of cleaning. Expect random inspections!
- **HSE Department**: Monitor compliance, conduct audits, and provide ongoing support and training.

Driving Requirements

- **Licensing**: All drivers must hold a valid driver's license for the class of vehicle they operate and supply safety@westwardgroup.ca a new copy of valid license when supplied license expires
- **Drivers Abstract:** A drivers abstract check will need to be competed prior to driving a Westward vehicle
- **Training**: Drivers must complete any required training programs, including defensive driving courses.
- **Health**: Drivers must meet the health requirements necessary to operate a vehicle safely, including regular medical checks if required.
- **Unauthorized Users:** No unauthorized drivers may operate a Westward vehicle at any time

Vehicle Requirements

- **Insurance and Registration:** Vehicles will have a copy of valid vehicle registration and insurance.
- **Maintenance**: Vehicles must be regularly maintained and inspected (performed weekly) to ensure they are in safe operating condition. Any

issues compromising the safe operating condition should be reported to Westward management

- **Safety Equipment**: All vehicles must be equipped with necessary safety equipment, including seat belts, first aid kits, fire extinguishers (inspected/signed off weekly as well, and as required by 3rd party), and emergency warning devices (i.e. buggy whips and beacon lights).
- **Environmental Standards**: Vehicles must meet applicable environmental standards to minimize emissions and other environmental impacts.
- **Fueling and oil changes:** Vehicles will have regular oil changes completed and fuel the vehicle with the assigned company gas card. Must get approval and schedule oil change with Management
- **Cleanliness:** All vehicles will be kept organized, clean on the inside of any debris. Exterior washes will be at a company provided car wash. (Clean Car Wash – Just a spray down does wonders, other times a deeper cleaning may be required) Undercarriage washing – Schedule with Management

Safe Driving Practices

- **Seat Belts**: All occupants must wear seat belts at all times.
- **Speed Limits**: Adhere to posted speed limits and adjust speed according to road and weather conditions.
- **Distractions**: Avoid the use of mobile phones or other distractions while driving
- **Fatigue**: Do not drive while fatigued. Take regular breaks on long journeys.
- **Substance Usage**: Never drive under the influence of alcohol, drugs, or any substances that impair ability to operate a vehicle.
- **Smoking/Vaping**: Smoking and vaping is strictly prohibited in all company-owned, leased, or rented vehicles. If vehicle needs to be cleaned due to smoke a deduction. This may lead to a payroll deduction

Incident Reporting and Investigation

- **Reporting**: Report all vehicle-related incidents, accidents, and near misses immediately to the designated person
- **Investigation**: Conduct thorough investigations of incidents to determine causes and implement corrective actions to prevent recurrence

Environmental Considerations

- **Fuel Efficiency**: Encourage the use of fuel-efficient vehicles and driving practices to reduce fuel consumption.
- **Pollution Prevention:** Take measures to prevent vehicle-related pollution, such as avoiding unnecessary idling and properly disposing of vehicle waste
- **Sustainable Practices**: Promote carpooling, use of public transportation, and other sustainable transportation practices.

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Compliance and Monitoring

- **Inspections**: Conduct weekly inspections to ensure compliance with the policy
- **Performance Metrics:** Track and report on vehicle mileage weekly (New)
- **Continuous Improvement**: Regularly review and update this policy to reflect best practices and regulator changes
- **General Usage**: Vehicles are only to be driven for work purposes, no unauthorized personal use is accepted.

Disciplinary Action & Penalties

All worker will be responsible for all traffic violations and the costs associated and will result in a payroll deduction

Failure to comply with this policy may result in disciplinary action, loss of Vehicle privileges and up to and including termination of employment.

References

- **Westward Company Vehicle Sign Off Form**
- **Fuel Card Commitment**
- **Vehicle and Equipment Pre-Use Checklist**

President - Lee DeStephanis

June 26. 2024
Date

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Violence & Harassment Prevention in the Workplace Policy /Plan

The violence& harassment prevention policy must be posted in a conspicuous place at Westward.

The management of Westward recognizes the potential for workplace violence, harassment, and other aggressive behaviour directed at our employees. We will not tolerate behaviour from anyone that intimidates, threatens, harasses, abuses, injures or otherwise victimizes our employees and will take whatever steps are appropriate to protect our employees from potential hazards associated with workplace violence. We are committed to providing our employees with an appropriate level of protection from the hazards associated with workplace violence. Westward will ensure, so far as is reasonably practicable, that no worker is subjected to violence/harassment in the workplace. Westward will take corrective action respecting any person under the employer's direction who subjects a worker to violence.

Management Responsibilities

Westward Management will:

- Inform employees if they are working in an area where there is a potential for violence/harassment and identify any risks that are specific to that area.
- Inform workers who may be exposed to the risk of violence of the nature and extent of the risk. This includes providing information related to the risk of violence from persons who have a history of violent behavior and whom workers are likely to encounter in the course of their work.
- Ensure that appropriate procedures are in place to minimize the risk to our employees from violence/harassment. Westward is committed to eliminating or, if that is not reasonably practicable, controlling the hazard of violence/harassment.
- Ensure that employees are trained in recognizing and responding to situations involving workplace violence/harassment.
- Ensure that every reported incident of workplace violence/harassment is investigated and potential areas for improvement are identified.
- Ensure corrective action is taken respecting any person under Westward’s direction who subjects another worker to harassment.
- Inform employees they have the right to file a complaint. Complaints may be filed with the Human Rights Commission.

Employees Responsibilities

- Employees of Westward are required to be familiar with and follow the procedures that are in place to protect them from workplace violence/harassment.

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- All employees must participate in the instruction of workplace violence/harassment prevention.
- Employees are required to immediately report all incidents of workplace violence/harassment to their supervisor.
- Employees are also responsible for participating in work site hazard assessments and implementing controls and procedures to eliminate or control the associated hazards of violence/harassment.
- No employee can be penalized, reprimanded, or in any way criticized when acting in good faith while following the procedures for addressing situations involving workplace violence/harassment.

Definitions

Violence, whether at a work site or work-related, means the threatened, attempted or actual conduct of a person that causes or is likely to cause physical or psychological injury or harm, and includes domestic or sexual violence. It is any act in which a person is abused, threatened, intimidated or assaulted in his or her employment. Workplace violence includes:

- Verbal abuse – condescending connotation in language, swearing or insults
- Verbal or written threats – any expression of an intent to inflict harm
- Physical attacks – kicking, shoving, pushing or hitting
- Threatening behaviour – destroying property, throwing objects or shaking fists.

Harassment means any single incident or repeated incidents of objectionable or unwelcome conduct, comment, bullying or action by a person that the person knows or ought reasonably to know will or would cause offence or humiliation to a worker, or adversely affects the worker's health and safety, and includes:

- conduct, comment, bullying or action because of race, religious beliefs, colour, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status, gender, gender identity, gender expression and sexual orientation, and
- a sexual solicitation or advance, but excludes any reasonable conduct of an employer or supervisor in respect of the management of workers or a work site.

Examples of workplace violence include but are not limited to, rumours, pranks, escalated arguments, vandalism, sabotage, theft, physical assault, psychological trauma, anger-related incidents, rape, arson, and murder.

Workplace violence can not only occur in the traditional workplace such as the office and jobsites but also at work related functions such as conferences and social events related to work.

Harassment does not include any reasonable action that is taken by Westward, or a manager or supervisor employed or engaged by Westward, relating to the management and direction of Westward's workers or the place of employment.

Westward will make every effort to ensure that no employee is subjected to harassment at any of our places of employment. Our management is committed to keeping this policy and to see that no employee causes or participates in the harassment of another employee. Westward believes that all our employees have the right to work in an environment free from all forms of harassment.

President - Lee DeStephanis

June 26. 2024
Date

Plan / Procedures

Office/Shop Workers

- There is always a possibility of violence/harassment/bullying from a co-worker, supervisor, or manager.
    1. In case of any threatening or harassing situation or concern that a threatening situation is arising, leave the area. Report the situation to the office management or committee member.
    2. **If your** supervisor or employer does not act, or the threat of further **violence** is serious, report it to the local police.

Field Workers:

- There is a possibility of violence/harassment/bullying from a landowner, Client, co-worker, or a third party.
    - In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. A decision will be made whether to report the incident to the police.
    - In case of a threat being made, leave the area at once and call 911 and report the incident. Also notify the office as soon as possible.
- If working on a customer's plant site, workplace violence/harassment/bullying could occur on the part of an angry plant worker(s) or other contractors on the site.
    - In case of any threatening situation or concern that a threatening situation is arising, leave the area. Report the situation to the office by phone. Westward will then contact the client(s) management.

***The safety information in this program does not take precedence over any applicable legislation.*

- In the case of a threat being made, leave the area at once and call 911 to report the incident. Also notify the office as soon as possible.

All reports of violence/harassment must be documented and investigated, actions must be taken to address the incident and ensure it does not happen again. If physical violence occurs in any of the above situations, leave the area at once and call 911 for assistance. Call the clients local contact person and then advise the Westward office of the situation.

Risk Assessment
A risk assessment for violence/harassment is performed on an annual basis or when a new issue arises in consultation with the committee at the workplace, the representative at the workplace, or when there is no committee or representative, the workers at the workplace. Results of the assessment will be conveyed to the employees at the regular staff meetings. We believe the potential risk of injury to workers from violence/harassment arising out of their employment may always be present.

The annual risk assessment includes the consideration of:
- Previous experience in that workplace (statistics for prior years),
- Current employees behaviors and history,
- Occupational experience in similar workplaces, and
- The location and circumstances in which work will take place.

If the annual or site specific risk/hazard assessment indicates an elevated risk of injury to our workers from violence/harassment a site/job task specific procedure, policy and work environment arrangements to eliminate or minimize the risk to workers from violence and harassment must be developed.

Controls measure that have been put in place to reduce the likelihood of workplace violence/harassment include training employees, ensuring doors stay locked (when applicable), lighting, emergency response procedures, and working alone procedures.

- ***How potential hazards will be identified and communicated to staff***

Hazard assessments on workplace violence/harassment will be completed on an annual basis or when a new issue arises. Results of the assessment will be conveyed to the employees at the regular staff meetings.

- ***Managing the Risk of Violence***

At Westward we will not send you into a situation where there is a threat of violence. Any workers who have been observed or reported being violent will be dismissed on confirmation from an investigation.

***The safety information in this program does not take precedence over any applicable legislation.*

Complaints should be verbally communicated to your supervisor. To minimize the risk of violence in a situation that is escalating you must stay calm. Do not confront the person who is getting violent. Leave the area and call for assistance from the office or 911.

- ***How to investigate and document incidents of workplace violence***

All incidents of workplace violence/harassment will be documented on the Incident Report and Investigation Form. The supervisor is responsible for investigating the incident to determine the causes and to identify how to prevent future occurrences and provide a written report with conclusions and recommendations. Once the investigation is complete Westward will:

- keep a record of the report from the competent person,
- provide the workplace committee or the health and safety representative, as the case may be, with the report of the competent person, providing information whose disclosure is not prohibited by law and that would not reveal the identity of persons involved without their consent, and
- adapt or implement, as the case may be, controls to prevent a recurrence of the workplace violence.

- ***The support available for victims of workplace violence***

All workers who are exposed to workplace violence/harassment will be advised to consult with a health care professional for treatment.

- ***Disclosure of Information***

Westward will not disclose the name of a complainant or an alleged harasser or the circumstances related to the complaint to any person except where disclosure is necessary for the purposes of investigating the complaint or taking corrective action with respect to the complaint or required by law.

The complainant and alleged harasser will be informed of the results of the investigation as soon as practicable after the event. Often this will be with both parties at one time, in situations where the complainant is scared or intimidated the discussions may be kept separate.

- ***Training of workers***

All workers will be instructed on workplace violence/harassment/bullying in orientation, when new information on workplace violence becomes available; and at least every three years. The training will include: the nature and extent of workplace violence/harassment/bullying and how workers may be exposed to it; the communication system established by Westward to inform workers about workplace violence/harassment/bullying; information on what constitutes workplace

violence/harassment/bullying and on the means of identifying the factors that contribute to workplace violence/harassment/bullying; the workplace violence/harassment/bullying prevention measures that have been developed; and Westward's procedures for reporting on workplace violence/harassment/bullying or the risk of workplace violence/harassment/bullying.

- ***Policy Review***

A review of the policy will be done on the earliest of the following:

- when an incident of violence/harassment occurs;
- if the joint work site health and safety committee or the health and safety representative, if applicable, recommends a review of the plan;
- annually.

This policy is not intended to discourage or prevent the complainant from exercising any other legal rights pursuant to any other law.

This program was developed with consultation of the committee.

Waste Management Policy

Waste is defined as any material that the owner/generator has no further use or is no longer suited for its initial purpose, and includes material that will be reused, recycled, or disposed of. Minimizing the amount and toxicity of waste generated in operations will reduce waste disposal cost and environmental, health and safety risks. We are responsible for any negative impact of our waste on the environment. It is strict policy that all waste generated by Westward or our contractors be handled in a proper manner and disposed of at a licensed facility.

Workers are instructed on the proper handling, storage, and disposal of wastes at orientation, during WHMIS Training, and at pre-job meeting. This training includes general instruction on disposal of non-hazardous wastes, trash, or scrap materials. Workers who work with hazardous waste are additionally trained on those wastes.

Prior to the commencement of a new project the amount of waste produced will be estimated and the need, if any, for waste bins or containers will be determined. Westward will ensure the owner is aware of whether wastes and scrap materials will be taken off site by Westward or will be disposed of on the owner's site. Westward will assign a senior person to be accountable for the disposal of wastes generated at the work site.

Westward manages its waste by the application of the 4 R's. It is important to:

- **Reduce** - Reducing the amount of wastes we generate is the most effective method to protect our environment.
  - ✓ Choose products with little or no packaging.
  - ✓ Buy in bulk.
  - ✓ Consider items that are durable.

- **Reuse** - Reusing is the next best—if you can reuse your waste, it is no longer considered waste!
  - ✓ Give away old computers, furniture, and other unwanted items to charities and thrift stores.
  - ✓ Look for reused items to purchase, where applicable.

- **Recycle** - Sometimes things can't be reused. Recycling keeps raw material in the system and keeps us less dependent on virgin ore, oil and trees for raw materials. Items that can often be recycled include (not limiting):
  - ✓ Plastics.
  - ✓ Drinking containers.
  - ✓ Tires.
  - ✓ Filters.
  - ✓ Motor oil.
  - ✓ Printer cartridges.
  - ✓ Batteries.

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- **Recover** – This applies to materials or energy from waste which cannot be reduced, reused or recycled. Examples include:
  - ✓ One example would be the chemicals used in printing. These can be recovered from the waste stream and used again in production.
  - ✓ Heat recovery is another money saving goal that is becoming more common as technology improves. Heat from production equipment can be recovered and used to heat offices or to preheat water needed for cleaning or production.
  - ✓ Solvents and spent oils can be reprocessed and returned to a productive use.

Hazardous Waste

A Hazardous Waste exhibits one or more of the following characteristics:

- Ignitable
- Flammable
- Corrosive
- Reactive
- Toxic
- Infectious

Hazardous wastes must be stored, transported, and disposed in a manner that meets all legislative requirements. Hazardous waste is never to be mixed with non-hazardous waste for dilution or disposal.

Storage and Handling of Waste

All waste must be characterized to identify potential risks. Waste must be stored in a safe manner to prevent impact on people and the environment in the event of a spill; proper waste receptacles must be provided (before the job begins). All hazardous or WHMIS hazardous waste must be stored in properly labeled containers and placed in secondary containment. Do not store incompatible waste together. Proper segregation and the use of recycle bins are used whenever possible.

Any waste that may be hazardous to people or the environment must have a safe work practice (SWP) developed to ensure safe storage and handling (use SDS Sheets in the creation of the SWP). The SWP will address the personal protective equipment required when handling; gloves are required when handling all waste, including domestic waste.

Treatment and Disposal of Waste

The effective tracking of hazardous waste is essential to ensure the proper handling, treatment, disposal and compliance with the regulations.

Working Alone Policy

"Working Alone" means to work alone at a work site as the only worker of the employer or contractor at that worksite in circumstances where assistance is not readily available in the event of an injury, illness or emergency.

Policy
Working alone in certain circumstances, situations, or environments is unsafe and requires special arrangements to minimize potential hazards.

"Alone" means beyond the visual or audible range of any other individuals for more than 30 minutes at a time.

All Westward personnel who work alone should be competent in their tasks and know their responsibilities; and any person assigned to check on the worker must be trained in the written procedure for checking the worker's well-being; when in doubt ask for help. The worker who will be working alone must, in conjunction with Westward, identify any potential hazard that may arise. Supervisors will judge competency based on experience and training.

The committee, the representative or where there is no committee or representative, the affected workers must complete a hazard assessment to identify all of the potential or actual risks, hazards, conditions, and circumstances of working in isolation. All reasonable steps must be made to eliminate any identified hazards, alternatively steps must be made to control any identified hazards if it is elimination of the hazard is not feasible. When the hazards cannot be eliminated or controlled to an acceptable level, two people will be required to complete the work. Examples of this include working with dangerous machinery, completing a highly hazardous task, etc.

The hazard assessment should be completed as much as possible, prior to going into the field to eliminate making two trips; unknown hazards should be added once on site. If it appears a significant hazard has been identified take a second person for safety. To assess this hazard record of past incidents and measures or actions taken should also be assessed.

Procedure
This written procedure for checking the well-being of a worker assigned to work alone or in isolation under conditions which present a risk of disabling injury, if the worker might not be able to secure assistance in the event of injury or other misfortune must be followed whenever a worker is alone.

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Since the working schedule is never routine, it is imperative to provide either in writing or by phone (your Westward contact must then write it down) a schedule. This schedule must include specific sites (either by LSD or general area), the hazards (ex: sour gas, remote locations, wild or farm animals, bad roads, adverse weather conditions), and check in times. When the schedule has changed the worker who is working alone must notify the contact within 1 hour.

This procedure for checking a worker's well-being, including time intervals between the checks, has been developed in consultation with the joint committee or the worker health and safety representative, as applicable and with the worker assigned to work alone or in isolation. Every time a worker is to be alone this procedure must be initiated:

- Assignment of a designated worker to contact the lone worker.
- Contact intervals must be predetermined (based on hazards, but no more than 4 hour intervals). In addition to checks at regular intervals, a check at the end of the work shift must be done.
- All contacts must be recorded.
- If required, initiate the overdue response plan.

An effective means of communication (radio, telephone, GPS phone, or other electronic communication devices) between the worker and persons capable of responding to the workers needs must be established. If no effective means of communication can be established, a Westward member will visit the worker or ensure the worker contacts the company at regularly assigned intervals.

For emergencies, ensure a contact person has all of the same information on the Working Alone Schedule. Emergency work will likely require additional call-ins to keep the contact up to date on location and changing hazards.

Personal protective equipment must always be worn, it is equally important when working alone. Never attempt to do a job that requires supplied air respirator when alone. Emergency supplies that are required to be in your vehicle including first aid kit, communications equipment, flares, etc. will be required to be carried on your person when you do not have immediate access to your vehicle.

A Safe Work Practice will need to be developed for any repetitive work that is often completed alone.

Tasks that shall not be performed alone

There are certain tasks that present hazards that are of a more serious nature than others. There are certain environments that also present hazards of a more serious nature either on their own or when combined with certain tasks. It is up to the person performing the work AND the supervision to perform an assessment of the hazards associated with performing the job to be done. If there are hazards associated with the task or environment that are considered to be highly dangerous in nature then under no circumstances should a worker be performing these tasks alone. Additional precautions must be taken to ensure the safety of all workers involved. Some tasks that should never be performed alone are listed below. The list is not a complete list and it is up to the employee and supervisor to determine if the task being performed is safe to do alone.
Under no circumstances should a worker be alone while:

- Working at heights
- Performing an emergency call where the worker may be fatigued from working a full day already
- Any electrical work where there is live electricity or the possibility of live electricity
- Working after normal working hours
- Working outdoors in extreme cold or extreme heat. (Anything below -30 degrees C or above 30 degrees C)

Overdue Worker Response Plan
The worker has within one hour to call the Westward contact person to tell them of any changes or to check in (unless the worker has asked this to be more stringent). If the worker fails to make contact within one hour, the Overdue Workers Response Plan will be initiated.

The following will be initiated one hour after contact was supposed to be made:

- Westward will attempt to contact the worker by cell phone, home number, hotels number, and/or radio.
- The client or other workers in the area (local contact) will then be notified and a plan to locate the worker will be initiated.
- Continual attempts will be made to contact the worker, also a call to the workers spouse, significant other, parents or other emergency contacts to see if they have heard from them and to keep them posted will be made.
- The local contact will physically go to locations specified on the contact sheet.
- Local hospitals will be called to see if the worker has been admitted.
- The local police or RCMP will be notified with a request for assistance.

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When the worker is located all members involved in the search must be notified immediately.

The Overdue Workers Response Plan involves a considerable amount of time, effort, and expense for a number of people. For this reason workers should recognize their responsibility to maintain a reasonable level of contact at all times.

This Working Alone Program is reviewed at least annually or more frequently when there is a change in work arrangements that could adversely affect a worker's well-being or a report that the system is not working effectively.

Section 9 SAFE WORK PRACTICES

The following Safe Work Practices (SWP) have been developed for general knowledge on the topic. Safe work practices are generally written methods outlining how to perform a task with minimum risk to people, equipment, materials, environment, and processes. Further information regarding a breakdown of tasks and hazards are located in the Job Hazard Analysis (JHA) / Safe Work Procedures section.

The following SWP's have been developed:

1. Aerial Lifts
2. Asbestos Awareness
3. Backing Up
4. Batteries /Charging and Servicing
5. Confined Space
6. Cranes, Hoists and Lifting Devices
7. Electrical Safety
8. Electrical Safety Awareness
9. Fall Protection
10. Falling/Dropped Object Prevention
11. Fire & Explosion
12. Fishing and Pulling Wires
13. Forklift
14. General Work Requirements
15. Grinding Safety
16. Ground Disturbance
17. Ground Fault Protection
18. H_2S - Hydrogen Sulphide
19. Ladders
20. Lifting and Handling Loads
21. Locking Out
22. Office Safety
23. Poisonous Gas Practice
24. Powered Mobile Equipment
25. Rigging
26. Scaffolds and Temporary Work Platforms
27. Tools, Equipment, Machinery, and Safeguards
28. Transportation - Alberta
29. Use of Portable Fire Extinguishers
30. Vehicle Authorization through Work Sites (Suncor)
31. Vehicle Idling

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32. Vessel, Pipe Failures (corrosion) Potential Exposure
33. Welding Safety
34. Wildlife Awareness
35. Work Permits
36. Working in Adverse Weather Conditions
37. Working Near High Voltage Electricity
38. Working on Wellsites
39. WHMIS

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Aerial Lifts

An aerial lift is any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel. These include extensible boom platforms, aerial ladders, articulating boom platforms, manlifts, and scissor lifts.

No person will operate an Aerial Lift until they have received adequate training, in accordance with manufacturers' specifications and deemed competent. Once they are deemed competent Westward will authorize the worker to operate aerial lifts.

The following steps will assist in ensuring the safe usage of an Aerial Lift:

1. Erect warning devices.
2. Erect barricades and warning signs
3. Ensure Flagperson on site.
4. Swamper to be utilized and identified.
5. Ensure means of communication between operator and swamper.
6. Fall arrest protection in place.
7. Follow aerial lift specific make / model safe work procedures step by step.

General

- Equipment that is not designed for use as a personnel lift must not be used as a personnel lift (e.g., front end loader buckets, backhoe buckets and cranes).

- Lift controls, brakes, and operating systems must be tested prior to use to determine that such controls are in safe working condition. Ensure that the boom and lifting equipment is tested prior to use.

- Review and follow fall protection requirements for aerial personnel lifts as found in the Fall Protection section of this manual. Personnel must always stand firmly on the floor of the basket, and are not permitted to stand on the rails of aerial device (edge of the basket) or use planks, ladders, or other devices for a work position. A body harness must be worn and a lanyard appropriately attached. An approved fall restraint system must be attached to the boom or basket when working from an aerial lift (it is not permitted to be attached to adjacent poles or structures).

- The vehicle must have a reverse signal alarm audible above the surrounding noise level or a spotter must guide the vehicle when in reverse.

- Load limits specified by the manufacturer must not be exceeded.

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- Aerial personnel lifts that can operate horizontally must set brakes and outriggers, when used, be positioned on pads or a solid surface, and chock wheels before using on an incline.

- An aerial lift truck may not be moved when the boom is elevated in a working position with personnel in the basket, except for equipment that is specifically designed for this type of operation.

- For lines rated 50 kV. or below, minimum clearance between the lines and any part of the equipment or load is at least 10 feet. Look all around for obstructions.

- The insulated aerial devices must not be altered in any manner that might reduce its insulating value. The insulated boom of a lift must be regularly maintained and certified to ensure the continued insulating properties.

- Before moving an aerial lift for travel, the boom(s) must be inspected to see that it is properly cradled and outriggers are in stowed position.

- Use the ignition switch on the platform to start the engine and allow the machine to warm up. Use the platform control lever to drive with the foot switch depressed.

- Never leave the keys in the equipment when it is not in use.

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

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Asbestos Awareness

The purpose of this Asbestos Awareness Policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with safe work practices for Asbestos. Whether the project you will be working on simply requires you to be aware of the hazard of Asbestos or it is a full abatement project this information is valuable to promote understanding of this potentially lethal substance.

Workers have the potential of coming into contact with Asbestos around any of the following areas (this is not an exhaustive list):

Building Exteriors
- Asbestos cement siding or roof panels - flat, corrugated, shingles or accent panels
- stucco
- brick and block mortar
- loose fill insulation in exterior wall cavities (vermiculite)

Structural
- fireproofing spray on beams, decks, joists, columns and other structural members

Service Areas
- insulation in boiler rooms - boilers, vessels, pipes, ducts, incinerators, floors,
- fan rooms - insulation on pipes, ducts, chillers, floors, ceilings, walls
- machine rooms - insulation on pipes, ducts, floors, ceilings, walls
- crawl spaces - insulation on pipes, ducts
- wall cavities, insulation above ceiling spaces - pipe and duct chases, pipes, ducts

Ceilings
- Asbestos cement ceiling tile
- acoustic and stippled finishes
- plaster or drywall jointing materials

Pipes (insulation)
- steam and hot water heating supply and return lines
- domestic water supply and drain lines
- chilled water lines
- rain water and sanitary lines - Asbestos cement or bell and spigot cast iron,
- insulated or bare pipe
- gaskets in flanged pipe joints

Flooring
- vinyl Asbestos tiles (VAT)
  sheet vinyl flooring (Asbestos paper backing)
- floor leveling compound

Walls
- plaster or drywall jointing materials
- stippled finishes
- thermal spray
- Asbestos cement panels

Miscellaneous
- emergency generators - thermal insulation and exhaust manifolds
- firestopping
- welding blankets and screens
- incinerators - internal insulation
- cooling towers - panels and fill

Asbestos fibres, unlike man-made fibres such as fibreglass, can be split into thinner and thinner fibres parallel to their length. At their finest, the fibres can hardly be seen by the best optical microscope. The average diameter of an airborne Asbestos fibre ranges from 0.11 to 0.24 micrometres, depending on the

type of Asbestos. By comparison, a human hair is approximately 75 micrometres in diameter (more than 300 times thicker) and a glass fibre ranges between 3 to 15 micrometres in diameter.

The main properties that make Asbestos useful are its incombustibility, strength and flexibility when separated into fibres. It is also effective as a reinforcing or binding agent when combined with cement or plastic.

Friable asbestos material can be crumbled with hand pressure and is therefore likely to emit fibers. The fibrous or fluffy sprayed-on materials used for fireproofing, insulation, or sound proofing are friable, and they readily release airborne fibers if disturbed. Materials such as vinyl-asbestos floor tile or roofing felts are considered non-friable and generally do not emit airborne fibers unless subjected to sanding or sawing operations. Asbestos-cement pipe or sheet can emit airborne fibers if the materials are cut, abraded, or sawed, or if they are broken during demolition operations.

A map or plan may be available showing location of any asbestos-containing material (ACM) and/or presumed asbestos containing material (PACM). Where workers have access to asbestos-containing materials, the asbestos containing materials are clearly and conspicuously labeled with a placard as asbestos. Workers must observe posted signs and/or labels identifying ACM and/or PACM. ACM and PACM must not be disturbed.

Training
All Westward field employees receive Asbestos Awareness training at orientation and as needed after that as all field employees have the potential of working in areas with asbestos containing material (ACM) or presumed asbestos containing material (PACM). Supervisors of any project where Asbestos is or may be a hazard are competent and trained for working around Asbestos.

Health Hazards
Workers who are likely to be employed in an asbestos process or are likely to be exposed to asbestos dust are warned that the inhalation of asbestos may cause pneumoconiosis, lung cancer or mesothelioma. Asbestos must be inhaled to cause disease. Intact and undisturbed Asbestos presents no direct health hazard but may present an exposure hazard should the fibres be released and inhaled.

Asbestos related diseases are caused by Asbestos fibres that are inhaled and settle in the lungs. Once embedded in lung tissue, the fibres may remain within the body for extended periods. Asbestosis, Lung Cancer, and Mesothelioma are conditions associated with exposure to high concentrations of airborne Asbestos. They are irreversible and potentially fatal. The lungs build up scar tissue around

the fibres in an attempt to remove them. This causes lung tissues to stiffen and leads to symptoms of coughing, difficulty in breathing, weight loss and eventually death. The combination of smoking and occupational Asbestos exposure is extremely hazardous.

Backing Up

Backing up a vehicle is a manoeuvre that must always be done with extreme caution. Due to limited vision out of the back windows or around long truck beds and equipment bodies, drivers may not see other vehicles, obstacles, or even coworkers and pedestrians when they are driving their vehicles backward.

Go Forward
Do not backup unless you have to. Some good tips include:

- Park so you can leave by driving forward. Most sites have a turn around so that traffic moves in the forward motion only.
- If you are unloading, try to use drive by methods instead of backing up.

Backing Up

- Prior to moving walk around your vehicle looking for hazards existing behind or beside the vehicle. Get out and check frequently in congested areas.
- Pick out some landmarks that you will be able to see in your mirrors.
- Stay well clear of other vehicles, machinery, and pedestrians, objects in the mirrors are closer than they appear.
- Where necessary use someone to guide you when backing up. Follow only the directions of one spotter, and STOP immediately if you lose site of the spotter or if anyone yells STOP.

***The safety information in this program does not take precedence over any applicable legislation.*

Batteries /Charging and Servicing

GENERAL Protecting workers from injuries associated with charging and servicing batteries

APPLICATION Batteries contain sulphuric acid and should be handled by trained personnel and be charged in approved battery charging areas.

PROTECTIVE MECHANISMS Safe work procedures

SDS

PPE as per company policy
Safety shower and eyewash station ERP (Emergency Response Plan)

SELECTION AND USE As per safe work procedure

SUPERVISOR RESPONSIBILITY To facilitate and/or provide proper instruction to their workers on protection requirements and training.

WORKER RESPONSIBILITY
1. Ensure the charger is off before attaching or removing clamp connections.
2. Attach clamps to the battery in proper polarity (i.e., negative to negative).
3. Ensure proper ventilation is in place where batteries are charged.
4. Inspect for defective cables, loose connections, corrosion, cracked cases or covers, loose hold-downs and deformed or loose terminal posts.
5. Replace worn or unserviceable parts.
6. Tighten cable clamp nuts with the proper size wrench.
7. Utilize a cable puller to remove a cable clamp from the battery terminal.
8. Remove corrosion on the terminal posts, hold-down tray and hold- down parts.
9. Use a tapered brush to clean battery terminals and the cable clamps.
10. Clean dirt from the battery with baking soda solution.
11. Utilize a battery carrier to lift a battery.
12. Ensure battery cells are not filled above the level in indicator.

***The safety information in this program does not take precedence over any applicable legislation.*

Confined Space

Code of Practice for Confined Space

A confined space is an enclosed or partially enclosed space, not designed or intended for continuous human occupancy, having restricted means of entry or exit that may become hazardous to a worker entering it due to its design, construction, location, work activities or atmosphere, the materials or substances in it and/or the provision of first aid, evacuation, rescue or other emergency response service is compromised.

Examples of confined spaces are (this is not a comprehensive list):

a) Crawlspaces.
b) Ducts.
c) Excavations.
d) Exchangers.
e) Pipelines.
f) Piping Systems.
g) Sewers.
h) Some components of major equipment.
i) Tanks.
j) Utility manholes.
k) Vessels.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for Confined Spaces.

Training and Competency

All Westward employees who may be required to work in or around any confined space must take in-house training to become familiar with the Westward Code of Practice for Confined Spaces including that of the entry and rescue procedures. All Westward workers must have the proper combination of experience, knowledge, and education to perform the work required.

No workers under the age of 16 are permitted to enter a confined space.

All field employees are required to participate in Confined Space Awareness training during orientation and as needed after that.

Workers must be competent when working around and entering a confined space. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a

minimal degree of supervision. The Tending Worker is always competent in rescue.

Before any worker can enter a confined space a supervisor will be assigned to the confined space. Supervisors are adequately trained to supervise the job. The supervisor must ensure that:

- pre-entry testing and inspection is conducted based on the written procedures,
- the precautions identified in the written procedures and the precautions required by Regulations or which are otherwise necessary for the health and safety of workers are followed,
- only authorized workers enter a confined space, and
- all work activities are coordinated to ensure:
    - ventilation, lighting, rescue equipment are adequate for the number of workers in the confined space,
    - all workers (even those working nearby) are informed of any hazards associated with the confined space, and
    - workers can perform tasks safety.

The following workers must be trained in and will implement a hazardous confined space entry plan:

- a worker who is required or permitted to enter,
- a worker who tends to a worker in the space, and
- a worker who may be required or permitted to implement the rescue procedures.

All training documents are kept on file and this is verified prior to each worker being sent to the field to complete a task that may involve working in or around a confined space.

Entry Permit

All Westward workers must not enter a confined space without a valid entry permit. The Entry Permit acts as a Hazard Assessment for Confined Space Entry. All workers (and in consultation with the work place committee or the health and safety representative, where existing) will be involved in the control or elimination of the hazards identified. Where a worker will be required or permitted to enter a hazardous confined space, a hazardous confined space entry plan must be developed to ensure the health and safety of workers who enter or work in the hazardous confined spaces. The Entry Permit must be dated and in writing. The entry permit system includes:

- Alternative means to perform the work in a confined space that will not require the worker to enter the confined space, if applicable.

- A list of the names of each worker who enters or tends the confined space along with the date and time of entry and the anticipated time of exit. Workers must sign in and out.
- The location of the confined space.
- The time during which an entry permit is valid.
- The work being done in the confined space.
- The code of practice / procedures requirements for entering, being in and leaving a confined space.
- Existing or potential physical and chemical hazards to which the worker is likely to be exposed while in the confined space including the conditions which may exist prior to entry due to the confined space's design, location or use, or which may develop during work activity inside the space
- Lockout requirements, if required, including blanking or blinding off and ensuring mechanical equipment installed in the confined space is disconnected from its power source and locked out.
- The type and frequency of inspections and tests necessary to determine the likelihood of worker exposure to any of the identified hazards. Person responsible to perform the inspections and tests identified and results of those tests. Specifically, the potential for oxygen enrichment and deficiency, flammable gas, vapour or mist, combustible dust, other hazardous atmospheres, harmful substances requiring lockout and isolation, engulfment and entrapment, and other hazardous conditions.
- The means, if any, of ventilating the hazardous confined space.
- The safety and personal protective equipment required to perform the work including insulated protection equipment and tools, if working around electrical applications.
- The personal protective equipment and emergency equipment to be used by a worker who undertakes rescue operations in the event of an accident or other emergency.
- Emergency rescue and evacuation requirements, including the number and duties of personnel.
- The means to maintain effective communication with a worker who has entered the hazardous confined space.

Before a worker enters a confined space, an entry permit/Hazard Assessment must be properly completed, dated, signed by a competent person and a copy kept readily available at the confined space location. Written procedures specifying the means to eliminate or minimize all hazards likely to prevail must be developed based on the hazard assessment. Once issued, the information on an entry permit may only be altered by:

- the responsible supervisor who signed the permit to update it,

- the standby worker to update the list of workers inside the confined space, or
- the tester to record test results.

Non – Hazardous Entry
Westward will notify a worker who is required to enter the confined space that the following has been addressed:

- Verification that the confined space is not hazardous,
- Arrangement for a method of communication with a worker on entry to exit from the confined space and at appropriate intervals while a worker is in the confined space,
- Procedure for the removal of a worker who has become injured or incapacitated while in the confined space has been prepared, and
- Confirmation that the ventilation in the confined space is adequate to maintain safe atmospheric conditions

Before an entry permit is obtained all applicable Safe work procedures must be in place including:

- all reasonably practicable steps must be taken to prevent any unauthorized entry into the confined space,
- procedures for recognizing the risks associated with working in the confined space,
- procedures for isolating - including blanking, disconnecting, interrupting and locking out - pipes, lines and sources of energy from a confined space,
- safety and personal protective equipment to be used,
- procedures for communicating with a standby worker,
- an emergency response plan and rescue procedures to be implemented in the event of an accident or other emergency in a confined space.

Inspections
The following inspections must be carried out by a competent person:

- Safety and emergency rescue equipment.
- Personal protective equipment.
- Test of the communication system.
- Of access/egress points.
- The Entry permit is readily available to workers in a confined space and is appropriate to the hazards.
- Verification that within the confined space:
  - any liquid where a person could drown has been removed,
  - any free-flowing solid in which the person may become entrapped has been removed.

- the entry of any liquid, free-flowing solid or hazardous substance into the confined space has been prevented by a secure means of disconnection or by the fitting of blank flanges,
- all electrical and mechanical equipment that may present a hazard to the person has been disconnected from its power source, real or residual, and has been locked out, and
- the opening for entry into and exit from the confined space is sufficient to allow the safe passage of a person using protection equipment.

All inspections must be documented and filed with the entry permit.

Testing the Atmosphere

After performing the hazard assessment a competent worker must perform pre-entry atmospheric tests (using calibrated test instruments), if required, of the confined space to:

a) Verify that the oxygen content is between 19.5 percent and 23 percent by volume.
b) Identify the amount of toxic substances (chemical and physical).
c) Identify the amount of flammable or explosive substance that may be present (ensuring that an explosive atmosphere will not occur).

Testing must be completed as often as necessary by a competent worker. If the likelihood of toxic atmospheres forming is high then continuous monitoring is required. The competent person shall prepare a report in writing that sets out:

- the results of the assessment, tests and determinations,
- recommended special precautions and procedures to reduce the risk to a worker that are to be followed by a worker entering into, exiting from or occupying the confined space, and
- recommended personal protective equipment to be used by a worker entering the confined space.

All workers are provided with and required to use a respiratory protective devices if the airborne concentration for any substance meets or exceeds the permissible contamination limit, oxygen deficiency or enrichment is detected or the airborne concentration of any other substance may be harmful to the worker.

All results of the atmospheric tests required in this section are recorded on the Permit.

Classification of Confined Spaces

There are three classes of confined space to reflect the conditions present at the time of entry with consideration for potential changes of conditions as identified.

Class A - The hazards in the confined space or in its proximity are either not known or have not been determined.

- Oxygen concentration is less than 19.5% or more than 23% by volume.
- Explosive or flammable atmosphere between 10% and 20% Lower Explosive Limit ("LEL"). Workers must not enter or remain in a confined space if more than 20% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere (this is further reduced to 10% of the LEL when working in Manitoba).
- The area atmosphere exceeds the protective limits of air purifier respiratory equipment.

Class B - A confined space will be considered Class B if all identified hazards are controlled and the following applies:

- Oxygen concentration is between 19.5% and 23% by volume; and explosive or flammable atmosphere, less than 10% of the Lower Explosive Limit (LEL).
- The concentration of toxic substances exceeds 50% of the Occupational Exposure Limit (OEL).

Class C - A confined space will be considered "Class C" if all identified hazards are controlled, the potential for change is unlikely, and *all* of the following apply:

- Oxygen concentration is between 19.5% and 23% by volume.
- Concentration of explosive gases is less than 1% of LEL
- Airborne concentration of toxic substances is less than 50% of OEL.

The Class of the confined Space must be recorded on the permit. The following controls must be put in place, where applicable:

- Supplied breathing air available and/or worn.
- All Entrants and Monitors must be trained in the use of supplied breathing air equipment
- A Confined Space Monitor in attendance at all times.
- A specific Rescue Plan needs to be reviewed and approved.
- A valid Confined Space Entry Permit.
- An Evacuation Procedure.

A list of each confined space or group of similar spaces and a hazard assessment of those spaces will be completed and updated. When assessing a Client's confined space the hazard assessment must be reviewed.

***The safety information in this program does not take precedence over any applicable legislation.*

Ventilation and Purging

If the atmospheric testing identifies that a hazardous atmosphere exists or is likely to exist in a confined space either the work must be stopped or the confined space must be ventilated, purged or both before a worker enters. If ventilating or purging a confined space is impractical or ineffective in eliminating a hazardous atmosphere, Westward must ensure that a worker who enters the confined space uses personal protective equipment (supplied air respiratory protection) appropriate for the conditions within the confined space, alternatively if a safe atmosphere cannot be maintained ensure that no work is carried-on in the confined space. The confined space must be ventilated sufficiently to maintain an oxygen content of at least 18% by volume under normal atmospheric pressure and to prevent the accumulation of contaminant.

Where ventilation equipment is used to maintain the concentration of chemical agents at or below acceptable limits, or to maintain the percentage of oxygen in the air of a confined space within acceptable limits, access to the confined space will only be granted if the ventilation equipment is equipped with an alarm that will, if the equipment fails, be activated automatically and be audible or visible to every person in the confined space, or monitored by an employee who is in constant attendance at the equipment and who is in communication with the person or persons in the confined space. In the event of failure of the ventilation equipment, sufficient time must be available for the person to escape from the confined space before the concentration of chemical agents exceed acceptable limits, or the percentage of oxygen ceases to remain within acceptable limits.

Inerting

If the atmospheric testing identifies that an explosive or flammable atmosphere exists or is likely to exist in a confined space either the work must be stopped or the confined space must be inerted before a worker enters. If it is not reasonably practicable to eliminate an explosive or flammable atmosphere within the confined space through another means it must be inerted. If a confined space is inerted, an employer must ensure that:

- Every worker entering the confined space is equipped with supplied air respiratory protection equipment.
- All ignition sources are controlled.
- The atmosphere within the confined space stays inerted while workers are inside.

Responsibilities of Safety Watch/Standby Person

A Safety Watch or standby worker is designated for every confined space. They must be trained in entry and emergency procedures. The responsibilities of that person are as follows:

- Competent in summoning rescue personnel, if required. A means of communication is mandatory. Be in communication or visual contact with personnel inside the confined space at all times.
- Initiate evacuation as necessary, and ensure proper signage is posted at the entrance to the confined space.
- NEVER leave the entry to the confined space with people inside unless properly relieved by another certified monitor.
- NEVER enter the confined space for any reason.
- After verifying all personnel have exited the confined space, ensure correct signage is in place prior to leaving the confined space entrance unattended. (ie. breaks and end of shift)
- Control the number of personnel allowed in the confined space, as identified by hazard assessment.
- Maintain a Confined Space Entry and Exit log for the duration of the job. Entry and exit logs must be safely stored for record retention purposes.
- Ensure Entry and Exit points are kept clear and clean.
- Maintain awareness of potential hazards in the vicinity of the confined space that may affect the health and safety of the worker(s) inside.
- Ensure that persons not authorized are prevented from entering a confined space.
- Ensure workers are protected from traffic hazards in the vicinity of the confined space.

Safe Means of Entry and Exit from the Confined Space

A safe means of entry and exit must always be available to all workers required to work in a confined space and rescue personnel attending to the workers. Depending on the location of the confined space safe entry and exits may be obtained from one or a combination of the following secured steps, temporary platforms, handrails, and barricades to ensure the area is free from traffic hazards. No worker is allowed to enter or remain in a confined space unless the worker is using a body harness, lanyard and lifeline. The lifeline must be attached to a secure anchor outside the confined space, be controlled by the qualified attendant, protects the person from the hazard for which it is provided and does not in itself create a hazard, and is, where reasonably practicable, equipped with a mechanical lifting device.

The electrical equipment that the worker uses or plans to use in the confined space must be of a type designed for use in a confined space. The safety and personal protective equipment required will be identified in the entry permit.

Emergency Response

Pre-planning can help prevent the need for Confined Space rescue, but sometimes emergencies do happen. During the hazard assessment process if it has been

determined that it is possible that an effective rescue may not be able to be carried no workers is allowed to enter or remain in the confined space. If the hazards change (ie. air monitoring indicates an increase of a toxic substance) the hazard assessment must be re-assessed and the workers may have to exit the confined space.

A site-specific emergency response plan (ERP) is required to be documented on the Confined Space Permit. The ERP will be made in consultation with the work place committee or the health and safety representative, if in existence. The emergency response plan includes the emergency procedures to be followed if there is an accident or other emergency, including the procedures in place to evacuate the confined space immediately, the list of all workers (including those specifically trained in rescue).

The following are general triggers that would require evacuation of the personnel inside the confined space:

- When an air monitoring alarm is activated.
- If the concentration of oxygen inside the confined space drops below 19.5 percent by volume or exceeds 23 percent by volume (without respiratory protection).
- If there is a significant change in the amount of hazardous substances inside the confined space.
- If the communication system in place to summon emergency response becomes ineffective.

All workers responding to a confined space emergency (and listed on the permit as being competent in rescue) have competence (In Saskatchewan a Class A qualification) in first aid, the use of appropriate emergency response equipment, and the procedures appropriate to the confined space rescue. All rescue workers must be fully informed of the hazards in the confined space be readily available to assist in a rescue procedure. All PPE and emergency equipment required for use in a confined space is inspected by a competent person before workers enter a confined space. Equipment necessary to rescue workers must be readily available at the entrance to the hazardous confined space and used in accordance with rescue procedures developed.

Isolating Pipes and Pipelines

When there are harmful substances under pressure in a piping system the methods to isolate that system are by blanking or blinding or equivalent engineered system. If the adjacent piping contains a harmful substance that is not a gas or a vapour, nor a liquid of sufficient volatility to produce a hazardous concentration of an air contaminant in the discharge of the piping, a double block and bleed system. An operable bleed-off between the two seals must also be utilized to release the

build up pressure and render the equipment safe. This isolation must be completed by a person competent in Lock Out Procedures before a worker can enter a confined space.

Retaining Records

Westward must ensure that all written records with respect to entry and work in a confined space, including entry permits, safe entry tags, atmospheric testing, and entry/exit logs are retained for not less than:

- 1 year if no incident or unplanned event occurred during the entry; or
- 2 years if an incident or unplanned event occurred during the entry**.**

Cranes, Hoists and Lifting Devices

Equipment that falls into this category includes: Boom Truck, Floor Operated Crane, Gantry Crane, Bridge Crane, Jib Crane, Tower Crane, Drum Hoist, and Electric Hoist.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for cranes.

At Westward, every hoist, crane and lifting device, including all rigging, has been purchased using rigorous standards. They are all designed, constructed, installed, maintained and operated to perform safely any task for which the hoist, crane, lifting device or rigging is used.

Notice to OHS must be given as soon as is reasonably possible of the failure of a crane or hoist or the overturning of a crane, whether or not a worker sustains injury. The notice must include:

- the name of each employer, contractor and owner at the place of employment;
- the date, time and location of the dangerous occurrence;
- the circumstances related to the dangerous occurrence; and
- the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be contacted for additional information.

Crane, Hoist or Lifting Device Requirements

At Westward the cranes, hoist, or lifting device all have a durable and clearly legibly written rated load capacity (this is checked in the daily inspection) that is accessible to the operator at the control station that states:

1. The maximum load-rating chart of the crane in all permitted working positions and configurations of use, as determined by the manufacturer.
2. The manufacturer’s name.
3. The model and serial number.
4. The year of manufacture or shipment date.

A copy of the manufactures operating manual for each hoist or crane must be readily accessible to the operator. Westward never requires or permits the operator of any hoist, crane or lifting device to raise any load that is greater than the rated load determined by the manufacturer of the equipment or a professional engineer for the condition in which the equipment is to be operated.

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A fire extinguisher having at least a 10 BC rating must be immediately available in the cab of each crane.

Training and Competency
All Westward employees receive training at orientation and refresher training every year thereafter.

Workers must be competent when working with cranes. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Before operating a lifting device, all workers must be able to demonstrate to the supervisor, his/her competency in the equipments operation and understanding of load charts and the code of signals for hoisting operations for hoisting operations.

No worker other than the competent worker authorized by Westward may operate a crane, hoist, or lifting device. All operators of each hoist or crane have been thoroughly trained, certified, and be able to implement the manufacturers recommended operating procedures. Before operating a particular lifting device, the operator must be familiar with all recent entries in its logbook.

No person under the age of 16 years will be employed or permitted to work as an operator of a crane or a hoist.

Qualified Signaller
A qualified signaller will be used when the operator of a hoist or crane does not or may not have a clear unobstructed view throughout the whole range of movement including the pick-up point, the setting point and the load (the hook if there is no load). The operator must act only on the directions of the qualified signaller who has a clear view of the things the operator cannot see. The operator of the crane or hoist must stop the operation of the equipment on receiving a stop signal from *any* person.

Record Keeping
All cranes, hoists, and lifting devices need a logbook if they have a rated load greater than five (5) tonnes in Saskatchewan, two tonnes (2000kg) in Alberta, and in BC:

- a crane or hoist with a rated capacity of 900kg (2200 lbs) or more
- a crane or hoist used to support a worker
- a tower crane
- a mobile crane, boom truck or sign truck
- a side boom tractor or pipe layer
- a construction material hoist

- a chimney hoist
- a logging truck trailer reload hoist
- any other type of hoisting equipment specified by the Board.

The logbooks are kept in the cab of each crane. Westward ensures that a record of the inspections and maintenance carried out is kept in the logbook and readily available to a worker who will use the crane.

The crane logbook will have the following information recorded:

- Date and time when any work was performed on the lifting device;
- Length of time in lifting service (recorded as hours of service);
- Manufacturer's specifications;
- Defects or deficiencies and when they were detected;
- Inspections, including examinations, checks and tests (calibrations), that are performed, including those specified in the manufacturer's specifications; and
- Repairs or modifications performed (maintenance records).
- Every logbook must be signed by the person who performed the inspection, maintenance, calibration and/or review on a regular basis.

NOTE: Logbooks are not required for manually operated hoists.

Maintenance and Inspection

Every hoist, crane or lifting device including the controls and safety devices must be inspected by a competent person to ensure it is in safe working condition:

- Before the hoist, crane or lifting device is used at the start of each work shift;
- At regular intervals as recommended by the manufacturer; and
- In accordance with legislative requirements of the cranes, hoist, or lifting device.

A mobile crane or boom truck must be inspected at least once every 12 months in accordance with good engineering practice, to ensure it meets the crane or boom truck manufacturer's specifications, and the requirements of the applicable design and safety standard or Regulation.

Any defects found during inspection or use of a crane or hoist must be recorded in the inspection and maintenance record system and be reported immediately to the supervisor, who must determine the course of action to be taken. If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied.

Safe Lifting
It is imperative that loads are not moved until an operator of a lifting device is assured that the working conditions are safe.

A crane or hoist operator must not pass a load over a person, unless no practicable alternative exists and then only after the person has been warned of the danger by an audible alarm or other effective means. A person working at a workplace must not stand or pass beneath a suspended load. Loads must be positioned as close to the ground as possible before unloading. The workers must be warned if loads are passed too close. Hand signals, telephone, and/or siren warning system could be used as an effective communication system for workers that are required to work in loud areas with lifting devices. All Westward workers are required to wear steel-toed boots for protecting themselves against falling objects.

Critical Lifts
While it is a good practice to complete load calculations for each lift regardless of the load weight, it is critical as the load approaches the crane's capacity. This calculation must be performed when the load reaches or exceeds 75 percent of the crane's capacity.

Performing a lift calculation ensures that relevant and applicable factors for lifting a load have been considered and calculated. These factors include:

- load information (total weight of item to be lifted, weight of load block, weight of rigging/attachments, load centre of gravity, if applicable;
- crane information:
    - mobile cranes i.e. maximum radius, boom length/angle, configuration, relevant deductions, etc.;
    - overhead cranes i.e. capacity;
- calculated percentage of crane capacity; and
- sketch i.e. crane placement, clearance to surrounding facilities like buildings and power lines.

For multiple lifts, the "worst-case" lift can be used to satisfy this requirement.

In the case of tower cranes, lifting operations are typically planned or engineered and test weights are lifted daily. This would satisfy this requirement.

Designated / Qualified Signaller
A designated / qualified signaller will be used when the operator of a hoist or crane does not or may not have a clear unobstructed view throughout the whole range of movement including the pick-up point, the setting point and the load (the hook if there is no load). The operator must act only on the directions of a qualified

signaller who has a clear view of the things the operator cannot see. The operator of the crane or hoist must stop the operation of the equipment on receiving a stop signal from any person.

Outriggers

When a hoist or crane is designed to be operated with outriggers or other stabilizing devices, the outriggers or other stabilizing devices must:

- Be used in accordance with manufactures instructions,
- Be set on a solid footing or pad,
- Have their controls, if any, readily accessible to the operator and in a suitable position for safe operation,
- Have the area around the outriggers or other stabilizing devices is kept free of obstruction,
- Ensure is a minimum clearance of 600mm between any moving part of the crane and any obstacle near the base of the hoist or crane,
- Ensure that where there is a danger of a worker being trapped or crushed by any moving part of the crane when the crane swings, the area around the base of the crane is barricaded to restrict the entry of workers.

Raising and Lowering Workers

It is always best, when practical to use only man baskets to raise or lower workers. When that cannot be done, a crane or hoist may be used to raise or lower the workers by following the site/equipment specific work practices and procedures.

All Westward workers who are operating the crane or hoist, are being raised or lowered, or just working nearby will be trained in the work practices and procedures to raise or lower workers.

The hoisting equipment and personnel lifting unit must be inspected by a competent person before use and daily when in use. A competent person must records the details of the inspection in the log book.

Site Specific Procedures for Erecting and Dismantling a Hoist or a Crane

If a hoist or a crane will be erected or dismantled a written procedure for safety will be developed. The procedure will take into account the following:

- the crane designer's or crane manufacturer's instructions;
- technical standards relevant to access and egress;
- the crane's stability;
- any adverse effects on other plant, structures or work processes at the workplace;
- the use of special tools, jigs and appliances necessary to minimize the risk of injury;
- control measures for securing crane components;

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- the interaction of the crane with other plant;
- environmental factors, such as wet or windy conditions; and
- all relevant electrical installations associated with the crane.

Electrical Safety

It's a fact, electricity kills! Burns, shock, and electrocution are common hazards that everyone needs to watch out for. Basic safety practices can help you avoid a minor injury or a major catastrophe. Westward understands that although not all of our workers are trained Electricians we must all have a basic understanding of electricity and its hazards.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for electrical work.

Definitions

FUSE: A metal strip that melts when the amperage is higher than the tested amperage value.

CIRCUIT BREAKER: An over-current protection device with a bi-metal strip that breaks the circuit when it detects an amperage overload greater than the tested value.

GROUND FAULT CIRCUIT INTERRUPTER: A device that disconnects the circuit within **1/40th** of a second when it detects an "electrical leak" across the wires.

SURGE PROTECTOR: A device to protect equipment from high voltages.

WIRE CAGE: A protective device installed on lamps to prevent breakage.

PLUG COVERS: A device to prevent children from sticking metal objects into an electrical socket.

LIGHTNING ARRESTOR: A device that directs lightning directly to the ground.

GUARD or LOCK: A device to prevent contact with open electrical wires.

SIGN: A device used to warn persons of high voltages.

INSULATION: A non-conductive barrier to prevent electricity from contacting people or objects.

PROCEDURES: Following proper procedures saves many lives.

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Training and Competency

All Westward employees receive basic electrical training at orientation and as needed after that. Prior to being permitted to do work in proximity to energized electrical conductors or equipment all Westward workers are informed of the potential electrical hazards of the specified task. This is done during the pre-job hazard/risk assessment. If the work requires proficiency in Electrical Applications, only a trained Electrician will perform the task including constructing, installing, altering, repairing or maintaining electrical equipment.

All Electricians must have the proper combination of experience, knowledge, and education to perform the work required. Workers must be competent when working with electricity. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. A “qualified electrical worker” will have a journeyman’s certificate in the electrician trade or power lineman trade issued pursuant to The Apprenticeship and Trade Certification Act, and includes an apprentice in the trade while under the supervision of a journeyman.

All training documents (including Apprentice and Journeyman Certificates) must be on file prior to the commencement of all electrical work.

Equipment Requirements

Often Westward workers do not have input in the specifications of electrical equipment used in electrical installations. Prior to the installation by a trained Westward worker a verification of the electrical equipment must prove that it is of a kind or type and rating approved for the specific purpose for which it is to be employed. Electrical equipment must be maintained in proper working condition, capable of safe operation, and tested in accordance with the manufacturer’s recommendations.

If you are unsure do not proceed. Contact with both Westward and the client will be required.

Hazardous Locations

Prior to the commencement of work, an assessment must be performed to determine whether the location is Hazardous or not, based on the CSA Electrical Code. All hazardous locations must be classified according to the nature of the hazard.

Class I locations - flammable gases or vapours are or may be present in the air in quantities sufficient to produce explosive gas atmospheres.

Class II locations - the presence of combustible or electrically conductive combustible dusts.

Class III locations - the presence of easily ignitable fibres or flyings, but in which such fibres or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

If the hazard assessment determines that a work area is a hazardous location, a professional engineer, or a competent person authorized by a professional engineer, must divide and classify the work area in accordance with the Canadian Electrical Code, or the Code for Electrical Installations at Oil and Gas Facilities. Adequate documentation must be prepared and maintained, outlining the boundaries of the classified area and any specific measures to prevent the unintentional ignition of an explosive atmosphere.

If the hazard assessment indicates that the above classification has changed, Westward will review and update that classification.

Whenever practicable, all service equipment, panel boards, switchboards, and similar electrical equipment shall be located in rooms or sections of the building in which hazardous conditions do not exist. All electrical equipment that must be used in the hazardous location must be approved for the specific gas, vapour, mist or dust that will be present. Westward ensures that no electrical equipment shall be used in a hazardous location, unless the equipment is essential to the process being carried on. Protective measures are to be used when working in confined or enclosed work spaces. Protective shields, protective barriers or insulating materials as necessary will be provided.

Westward ensures that in a hazardous location, equipment used will not ignite a flammable substance, and static electricity is controlled.

Workers who may carry long conductive objects such as pipe or ducts must ensure the following:

- Ensure the location of any electrical source is known (including overhead lines).
- Have two workers carry any item that is 5’ long or longer, unless the electrical hazard can be eliminated.
- Have a physical barrier where practicable.

Limits of Approach

Prior to any work being performed Westward will accurately determine the voltage of any energized electrical equipment or conductor and the associated minimum distance from it required.

Qualified electrical workers must perform all work in accordance with written instructions or safe work procedure that has been developed and signed by a

competent person. Equipment must be approved for the intended use of the equipment. Qualified electrical workers must use personal protective equipment that meets the requirements of our Personal Protective Equipment Policy. If the conductor is operating at 25 kilovolts or less and is fitted with rubber and rubber-like insulating barriers that meet the requirements of an approved standard.

British Columbia

The following minimum applicable distances must be maintained between exposed, energized high voltage electrical equipment and conductors and any worker, work, tool, machine, equipment or material:

Voltage Phase to Phase	Minimum Distance	
	Metres	Feet
Over 750 V to 75 kV	3	10
Over 75 kV to 250 kV	4.5	15
Over 250 kV to 550 kV	6	20

A qualified electrical worker may work closer than the above limits, provided the worker is authorized by the owner of the power system and uses procedures acceptable to the Board. The following minimum applicable distances will apply:

Voltage Phase to Phase	Minimum Distance	
	Metres	Feet
Over 750 V to 20 kV	0.9	3
Over 20 kV to 30 kV	1.2	4
Over 30 kV to 75 kV	1.5	5

Saskatchewan

The following minimum distances from Exposed Energized High Voltage Electrical Conductors have been set out:

Risk Factor		Column 1	Column 2	Column 3
Voltage Phase to Phase	Voltage to Ground	Non- electrical Workers, Material, Equipment	Qualified Electrical Workers	Vehicles and Load
(kV)	(kV)	(Metres)	(Metres)	(Metres)
230	133	6.1	1.4	1.83
138	79.8	4.6	1	1.22
72	41.6	4.6	0.6	0.8
25	14.4	3	0.3	0.6
15	8.6	3	0.3	0.6
4.16	2.4	3	0.15	0.6
0.75	0.75	3	0.15	0.6

Portable Electrical Equipment

Portable electrical equipment having double insulation or equivalent protection does not need to be grounded provided it is marked to that affect.

***The safety information in this program does not take precedence over any applicable legislation.*

All other portable electrical equipment (including those not permanently connected to the wiring system) must be effectively grounded by the use of approved cords and polarized plugs inserted in grounded polarized receptacles.

When used outdoors or in a wet or damp location, portable electrical equipment, including temporary lighting, must be protected by an approved ground fault circuit interrupter of the class A type installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided. A ground fault circuit interrupter must not be used in place of grounding except as permitted by the *Electrical Safety Act* and the regulations made under it.

General Guidelines

All Westward electricians have a significant amount of training and experience the follow are general guidelines always followed to ensure safety:

Electric Installations

- Electrical installations shall be made so that the likelihood of fire spreading through fire stopped partitions, floors, hollow spaces, firewalls or fire partitions, vertical shafts, or ventilating or air-conditioning duct is reduced to a minimum. Where a fire separation is pierced by a raceway or cable, any openings around the raceway or cable shall be properly closed or sealed in compliance with the National Building Code of Canada.
- Electrical equipment shall be installed and guarded so that adequate provisions are made for the safety of persons and property and for the protection of the electrical equipment from mechanical or other injury to which it is liable to be exposed.
- Bare live parts shall be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures.
- Electrical equipment such as switchboards, panel boards, industrial control panels, meter socket enclosures and motor control centres that are installed and are likely to require examination, adjustment, servicing or maintenance while energized shall be marked to warn persons of potential electric shock and arc flash hazards. The markings shall be located so that it is clearly visible to persons before examination, adjustment, servicing, or maintenance of the equipment.
- When installed outdoors, arc-producing electrical equipment shall not be installed within 1m of the discharge of a combustible gas relief device or vent.
- The path to ground from circuits, equipment, or conductor enclosures shall be permanent and continuous, shall have ample ampacity to conduct safely any currents liable to be imposed on it, and shall have impedance sufficiently low to limit the voltage above ground and to facilitate the operation of the overcurrent devices in the circuit.

- All switches, receptacles, luminaires and junction boxes must be fitted with a cover that is approved for the intended use and location of the cover.
- All wire joints or connections must be fitted with an approved cap or other approved cover; enclosed in an approved box; or where the wire joints or connections are not permanently installed, protected from damage by another approved means.
- All dead, abandoned, or disused electrical conductors or equipment are removed from the place of employment or disconnected and secured to prevent inadvertent energization.

Maintenance and Operation

The following should be adhered to during any maintenance and operation of electrical equipment:

- Low voltage and high voltage electrical equipment must be completely disconnected, locked out, and grounded before starting work on it.
- All operating electrical equipment shall be kept in safe and proper working condition.
- Electrical equipment maintained for emergency service shall be periodically inspected and tested, as necessary, to ensure its fitness for service.
- Before completing installation and after energizing low voltage, and high voltage electrical equipment, conspicuous signs visible to workers must be placed close to the equipment stating "Danger, Energized Equipment, the highest voltage in use and that access is restricted to authorized persons only ".
- Infrequently used electrical equipment maintained for future service shall be thoroughly inspected before use in order to determine its fitness for service.
- Defective equipment shall either be put in good order or permanently disconnected. Where defects or unsafe conditions have been identified in electrical equipment, the following must occur:
    - steps are taken immediately to protect the health and safety of any worker who may be at risk until the defects are repaired or the unsafe conditions are corrected; and the defects are repaired or the unsafe conditions are corrected as soon as is reasonably practicable; or
    - shall ensure that the electrical equipment is disconnected and removed from use.
- In locations where explosive or flammable materials or gases are present, repairs or alterations shall not be made on any live equipment and fits or seals in enclosures shall be maintained in their original safe condition.
- Passageways and working space around electrical equipment shall not be used for storage and shall be kept clear of obstruction and arranged to give authorized persons ready access to all parts requiring attention. A minimum working space of 1m with secure footing shall be provided and maintained about electrical equipment such as switchboards, panel boards, control

panels, and motor control centres that are enclosed in metal, except that working space is not required behind such equipment where there are no renewable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back. Each room containing electrical equipment and each working space around equipment shall have suitable means of egress, which shall be kept clear of all obstructions.

- Adequate illumination shall be provided to allow for proper operation and maintenance of electrical equipment.
- A Class C fire extinguisher must be readily available to workers working on or near energized high voltage electrical equipment.
- Flammable material shall not be stored or placed in dangerous proximity to electrical equipment.
- Adequate ventilation shall be provided to prevent the development around electrical equipment of ambient air temperatures in excess of those normally permissible for such equipment.
- Where a portable luminaire is used the electrical extension cord and fittings must be approved for the intended use and location of the extension cord and fittings and are properly maintained. An electrical extension cord used for a luminaire must not be used to supply power to any equipment other than the portable luminaire unless the cord meets the proper requirements.

Emergency Program

Westward will develop and implement an emergency program that sets out the procedures to be followed in the event of an electrical worker may come in contact with an exposed energized electrical conductor that contact may affect the health or safety of the worker. The emergency program must include procedures:

- to rescue a worker who has come into contact with a live conductor;
- to administer first aid to a worker who has sustained an electric shock; and
- to obtain medical assistance.

All workers are adequately trained to implement the emergency program.

Electrical Substation Panels and Gates

CONTROL PANELS:

1. **Do not place tools** or equipment where they will block access to control panels or where they can fall against controls or into wiring.

2. Treat all ungrounded parts of a panel **as live** at the highest voltage in the panel.

3. Before operating any control device, obtain authorization from the **system operator in-charge.**

***The safety information in this program does not take precedence over any applicable legislation.*

4. **Keep clear of control panels and devices to avoid unintentional operation.**

SUBSTATION GATES:

1. **Obtain permission** from the operator in-charge before entering an energized substation.

2. When leaving a substations, double check to make sure fence and gates are **closed and locked.**

3. Do not pile material such as cross arms or boxes directly beside a substation fence; it may provide an access for unauthorized persons.

4. **Keep substation gates and enclosures closed or locked to prevent unauthorized entry.**

Electrical Safety Awareness

It's a fact, electricity kills! Burns, shock, and electrocution are common hazards that everyone needs to watch out for. Basic safety practices can help you avoid a minor injury or a major catastrophe. Westward understands that although not all of our workers are trained Electricians we must all have a basic understanding of electricity and its hazards.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for electrical work.

Training and Competency
All Westward employees receive basic electrical training at orientation and as needed after that. Prior to being permitted to do work in proximity to energized electrical conductors or equipment all Westward workers are informed of the potential electrical hazards of the specified task and the prevention of electrical shock, arc flash, and fire. This is done during the pre-job hazard/risk assessment. If the work requires proficiency in Electrical Applications, only a trained Electrician will perform the task including constructing, installing, altering, repairing or maintaining electrical equipment.

All Electricians must have the proper combination of experience, knowledge, and education to perform the work required. Workers must be competent when working with electricity. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. A "qualified electrical worker" will have a journeyman's certificate in the electrician trade or power lineman trade issued pursuant to The Apprenticeship and Trade Certification Act, and includes an apprentice in the trade while under the supervision of a journeyman.

All training documents (including Apprentice and Journeyman Certificates) must be on file prior to the commencement of all electrical work.

Personal Protective Equipment
The following personal protective equipment must be worn for protection from electrical shock and/or arc flash:

- Voltage rated gloves (hot gloves), rated and tested for the maximum line-to-line voltage upon which work will be done, must be worn when:
    - performing work on energized parts,
    - an electrical panel is de-energized, but the power supply feeding the electrical disconnect or enclosure is not guarded (e.g. - finger-safe

guards, manufacturer shields), and/or there is no guarding around foreign power components, and
    - testing voltage of energized components.
- All work on energized equipment between 50 and 240 volts (including when the power supply feeding the electrical disconnect or enclosure is not guarded and/or when there is no guarding around foreign power components), and/or when removing the bolts of a cover, and circuit breaker or fuse switch operations with the cover on, circuit breaker or fuse switch operation with the covers off, and the opening of hinged covers to expose bare wire on energized equipment requires the use of:
    - fire resistant long pants made of natural fibers (e.g. untreated cotton, wool, denim) or treated fire resistant material, and
    - fire resistant long sleeved shirt made of natural fibers or arc flash suit jacket (> or = to 11 cal/cm^2), or
    - fire resistant coveralls with an arc flash rating of > or = to 4 cal/cm^2.
- All work on energized equipment between 241 and 480 volts (including when the power supply feeding the electrical disconnect or enclosure is not guarded and/or when there is no guarding around foreign power components), and/or when removing the bolts of a cover, requires the use of:
    - arc flash suit jacket and pants (> or = to 11 cal/cm^2), and
    - hardhat with fire resistant face shield (> or = to 8 cal/cm^2), or
    - arc flash suit hood worn over head and secured,
    - leather gloves,
    - leather footwear,
    - hearing protection.
- Clothing worn around live circuits should be 100% untreated natural fiber. Synthetic materials, such as nylon, will melt onto skin in the event of an arc flash or electric shock which can lead to serious burns.

Locking Out
Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, Westward will ensure that the electrical conductor or electrical equipment is isolated, locked out, and connected to ground.

Portable Electrical Equipment
Portable electrical equipment having double insulation or equivalent protection does not need to be grounded provided it is marked to that affect.

All other portable electrical equipment (including those not permanently connected to the wiring system) must be effectively grounded by the use of approved cords and polarized plugs inserted in grounded polarized receptacles and be approved

for the location of use (indoor/outdoor). The electrical extension or power supply cord; must be maintained and protected from physical or mechanical damage.

When used outdoors or in a wet or damp location, portable electrical equipment, including temporary lighting, must be protected by an approved ground fault circuit interrupter of the class A type installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided. A ground fault circuit interrupter must not be used in place of grounding except as permitted by the *Electrical Safety Act* and the regulations made under it.

General Guidelines

Often Westward workers do not have input in the specifications of electrical equipment used in electrical installations. Prior to the installation by a trained Westward worker a verification of the electrical equipment must prove that it is of a kind or type and rating approved for the specific purpose for which it is to be employed. Electrical equipment must be maintained in proper working condition, capable of safe operation, and tested in accordance with the manufacturer's recommendations.

Westward will mark or tag as unsafe and remove from service any equipment with damaged or defective electrical components (eg- damaged power cord or plug) that may render it unsafe for use.

Westward ensures that in a hazardous location, equipment used will not ignite a flammable substance, and static electricity is controlled. Flammable material shall not be stored or placed close to electrical equipment.

Fall Protection

Fall Protection is necessary when there is a potential to fall more than 3 meters and/or guardrails are not provided or if there is an unusual possibility of injury if a worker falls less than 3 meters. Fall protection must be worn and a Fall Protection Plan be developed when working over water, open vessels, machinery, extremely hot or cold surfaces (even if the fall may be less than 3m), working from a boom elevating work platform, boom supported aerial device, ladder, or telescopic forklift truck work platform. Whenever possible handrails must be installed.

Some of our Clients follow the US OSHA standard of fall protection of 6 ft (1.8m). When working at sites owned by these client's we must adhere to the 6 ft (1.8m) requirement, this will be discussed prior to any work requiring the more stringent standard.

A fall arresting device prevents a worker from falling more than 1.2 metres without a shock absorber; where a shock absorber is used, prevents a worker from falling more than two metres (or the limit specified in the manufacturer’s specifications, whichever is less) and applies a peak fall-arrest force not greater than eight kilonewtons to a worker. The fall arresting device must be fastened to a lifeline or to a secure anchor point that has a breaking strength of at least 22.2 kilonewtons.

The purpose of the Fall Protection policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for Fall Protection.

Training
Westward employees performing work requiring fall protection require training in the fall protection plan and the safe use of the fall protection system before being allowed to work in an area where a fall protection system must be used. All personnel who perform tasks that include the use of fall protection must have the proper combination of experience, knowledge, and education and be considered competent by their supervisor. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. If you are unsure of a rule or requirement, stop and ask.

Training includes the following:

- an understanding of the company's fall protection policies and procedures,
- fall protection equipment a worker may be required to use at a work site,
- identification of potential fall hazards,
- information about the effect of a fall on the human body,
- pre-use inspection, and

- emergency response procedures to be used at the work site, if necessary.

Workers are also trained in their responsibilities to ensure that the lifeline or lanyard is free of imperfections, knots and splices other than end terminations, is protected by padding where the lifeline or lanyard passes over sharp edges and is protected from heat, flame or abrasive or corrosive materials during use. Before using a safety belt or full body harness a worker must ensure that the safety belt or full body harness is properly adjusted to fit the worker securely and is attached by means of a connecting linkage to a fixed anchor or lifeline.

All training certificates are kept in a secure filling cabinet.

Standards and Equipment Requirements

Westward ensures all equipment identified for use in fall protection must be in compliance with the OH&S code and applicable CSA, ANSI/ASSE, or CEN standards and updates to those standards. Our purchasing policy for Fall Protection Equipment ensures the following CSA Z259 standards have been met for all manufactured on or after July 1, 2009 (prior to this date previous applicable standards are acceptable):

- CSA Z259.10 – 06, Full Body Harnesses, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, or CEN Standard EN 361: 2007, *Personal protective equipment against falls from a height — Full body harnesses*
- CSA Standard Z259.1-05, *Body belts and saddles for work positioning and travel restraint*, ANSI/ASSE Standard A10.32-2004, *Fall Protection Systems – American National Standard for Construction and Demolition Operations*, or CEN Standard EN 358: 2000, *Personal protective equipment for work positioning and prevention of falls from a height — Belts for work positioning and restraint and work positioning lanyards*
- CSA Standard Z259.11-05, *Energy absorbers and lanyards*, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, or CEN Standard EN 354: 2002, *Personal protective equipment against falls from a height — Lanyards.*
- CSA Standard Z259.11-05*, Energy absorbers and lanyards;* ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components;* or CEN Standard EN 355: 2002, *Personal protective equipment against falls from a height – Energy absorbers*.
- CSA Standard Z259.12-01 (R2006), *Connecting Components for Personal Fall Arrest Systems (PFAS)*, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, CEN Standard EN 362: 2004, *Personal protective equipment against falls from a height – Connectors*, or CEN Standard 12275: 1998, *Mountaineering equipment – Connectors – Safety requirements and test methods*.

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- CSA Standard Z259.2.1-98 (R2004), *Fall Arresters, Vertical Lifelines, and Rails*, ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*, or CEN Standard EN 353-2: 2002, *Personal protective equipment against falls from a height – Part 2: Guided type fall arrestors including a flexible anchor line*.
- CSA-Z259.2.2-98 (R2004), Self-Retracting Devices for Personal Fall Arrest Systems.
- CSA Standard Z259.2.3-99 (R2004), *Descent Control Devices*, CEN Standard EN 341: 1997, *Personal protective equipment against falls from a height – Descender devices*, or (c) NFPA Standard 1983, *Standard on Life Safety Rope and Equipment for Emergency Services,* 2006 edition, classified as general or light duty.
- NFPA Standard 1983, *Standard on Life Safety Rope and Equipment for Emergency Services*, 2006 Edition, as light-use or general-use life safety rope, CEN Standard EN 1891: 1998, *Personal protective equipment for the prevention of falls from a height — Low stretch kernmantle ropes,* as Type A rope, CSA Standard CAN/CSA-Z259.2.1-98 (R2004), *Fall Arresters, Vertical Lifelines, and Rails,* or ANSI/ASSE Standard Z359.1-2007, *Safety requirements for personal fall arrest systems, subsystems and components*.
- CSA Standard Z259.11-05, *Energy absorbers and lanyards*, as a Class F adjustable positioning lanyard, or CEN Standard EN 358: 2000, *Personal protective equipment for work positioning and prevention of falls from a height — Belts for work positioning and restraint and work positioning lanyards.*
- CSA Standard Z259.2.3-99 (R2004), *Descent Control Devices*, CEN Standard EN 341: 1997, *Personal protective equipment against falls from a height – Descender devices*, or NFPA Standard 1983, *Standard on Life Safety Rope and Equipment for Emergency Services*, 2006 Edition, classified as general or light duty.
- CSA-Z259.14-01, Fall Restrict Equipment for Wood Pole Climbing in combination with CSA Standard Z259.3-M1978 (R2003), *Lineman's Body Belt and Lineman's Safety Strap*.

A lifeline must be suitable for the conditions in which the lifeline is to be used, having regard to factors including strength, abrasion resistance, extensibility, and chemical stability. All Westward supplied lifelines are made of wire rope or synthetic material, is free of imperfections, knots and splices, other than end terminations, is protected by padding where the lifeline passes over sharp edges, is protected from heat, flame or abrasive or corrosive materials during use and is maintained to manufacturer's recommendations.

Engineering controls such as guardrails are the best method of fall protection, and must be used whenever practicable. A standard guardrail consists of a top rail

located between 92 cm (36 in) and 107 cm (42 in) above the work surface, and a mid rail that is spaced midway between the top rail and the work surface. A guardrail must be capable of supporting a worker who may fall against it.

A travel restraint or fall arrest system must be used when a worker is exposed to a potential fall of 3 meters or greater (6 ft /1.8 m when working for Clients using the more stringent US OSHA Standard), when guardrails are not practicable. The fall protection system is made up of many parts, including anchor points, hooks, harness, connecting linkage, and lanyards that must be approved and maintained. If a Westward worker uses a personal fall arrest system or a travel restraint system, the worker must ensure that it is safely secured to an anchor. The following safety issues must be addressed:

- If a Westward worker uses a personal fall arrest system or a travel restraint system, the worker must ensure that it is safely secured to an anchor and that separate anchor points are used for each worker.
- Anchor points should be above the workers head. Select an anchor point that will limit the distance of the fall.
- A permanent anchor for a personal fall protection system must have an ultimate load capacity in any direction required to resist a fall of at least 22.2 kN (5 000 lbs) and is not used to suspend any platform or other load.
- Consider the amount of lanyard that would be lengthened from the shock absorber. Lanyards must be short enough to prevent a worker from falling too far but long enough to not interfere with the work being carried out. All lanyards are constructed of nylon, polyester, or polypropylene rope or webbing or wire rope that is equipped with an approved shock-absorbing device. Lanyards must be equipped with suitable snap hooks.
- Where a snap hook is used as an integral component of a personal fall arrest system, connecting linkage, fall arresting device, full body harness or lifeline, the snap hook must be self-locking.
- When a Man basket is used there must be a separate safety line attached from the basket frame up to the boom or crane line above the hook holding the man basket.
- Where a full body harness is used:
    - it must be properly fitted to the worker,
    - the worker must be trained in the safe use of the full body harness,
    - all metal parts of the full-body harness and connecting linkage are of drop-forged steel 22.2 kilonewtons proof tested;
    - a protective thimble is used to protect ropes or straps from chafing whenever a rope or strap is connected to an eye or a D-ring used in the fullbody harness or connecting linkage; and
    - the connecting linkage is attached to a personal fall arrest system, lifeline or secure anchor point to prevent the worker from falling more than 1.2 metres.

***The safety information in this program does not take precedence over any applicable legislation.*

All components of the fall protection system must be protected from exposure to harsh conditions or substances that could contribute to its deterioration.

Inspection and Maintenance

Employees of Westward are required to thoroughly inspect the fall protection equipment including the connecting linkage, full-body harness, or lifeline before each shift or use to ensure that it is functional and safe. The inspection must be performed by a competent worker. The components must be inspected according to the manufacturer's specifications and maintained in good working order; the components must be re-certified as required by the manufacturer.

The use of a connecting linkage, personal fall arrest system, full-body harness or lifeline requires a competent person to:

- inspect the connecting linkage, personal fall arrest system, full-body harness or lifeline as recommended by the manufacturer (the components must be re-certified as required by the manufacturer);
- inspect after the connecting linkage, personal fall arrest system, full-body harness or lifeline has sustained a fall-arresting incident; and
- determine whether the connecting linkage, personal fall arrest system, full-body harness or lifeline is safe for continued use.

If the inspection indicates that the fall protection equipment is unsafe or damaged then it must be rejected and be removed from service. An out-of-service tag should be affixed to the equipment indicating it is defective. All defective components of a fall protection system must be repaired by an outsourced provider. Westward workers are not allowed at any time to repair the fall arrest systems. If it is determined the component cannot be repaired they must be discarded immediately. After a fall protection system has arrested the fall of a worker, it must be removed from service and not be returned to service until it has been inspected and re-certified as safe for use by the manufacturer or its authorized agent, or by a professional engineer.

Westward Fall Protection Plan

A fall protection plan must be written for a workplace if work is being done at a location where workers are not protected by permanent guardrails, and from which a fall of 7.5 m (25 ft) or more may occur, or if the use of a fall arrest system is not practicable, or will result in a hazard greater than if the system was not used. The plan must be reviewed by all Westward workers using the fall protection system prior to commencing work. The fall protection plan must be available at the work site at all times. The Fall Protection Plan should include the following components:

- Location of work.
- Identification of fall protection system to be used including types and location of anchor points.

- Assembly, maintenance, and dismantling instructions.
- Inspection and rejection criteria.
- The rescue procedures.
- All hazard, including fall hazards, present at the worksite (hazard assessment).
- A list of the important emergency phone contacts.
- Date, name, and signature of plan developer.
- All workers must sign the Plan to acknowledge that they have reviewed and understand the contents.

If the work and hazards are similar between two jobs, the development of a separate plan may not be necessary, but the requirement to review, understand and sign the plan must be adhere to.

Fall Arrest Rescue Plan
Prior to any work involving the potential for a worker to fall Westward will create a plan to retrieve a suspended worker from a fall arrest system if a fall were to occur. Site specific written rescue procedures will be established and in place before any worker uses a fall arrest system at a work site. The plan will include method(s) to be used to rescue a suspended worker from a fall arrest system following a fall. When external emergency services are to be used, they must be capable of performing that method of rescue and be readily available to assist.

Rope Access Equipment
General:

- Components used in any system shall be compatible.
- Rope access devices shall be constructed so that inadvertent detachment or removal from the rope is not possible when the device is used in accordance with the manufacturer's instructions.
- All equipment shall minimize damage to the rope under normal use. Equipment shall be functional in the environment in which it is used.

Standards:

- Rope access equipment should conform to standards relevant to the intended use. Seek guidance from the manufacturer of the equipment if there is any doubt about whether or not a particular standard is relevant to the intended use.
- Rope access equipment should satisfy the legal requirements in effect at the location of the work.
- If rope access is not directly regulated by an authority having jurisdiction at the location of the work, the rope access equipment should meet one or

more of the relevant equipment standards established by an international, regional or national body such as those listed for each component.

- Testing methods for rope access equipment are beyond the scope of this document.
- Appropriate standards for each piece of equipment must be used to test for appropriate requirements such as a component's minimum breaking strength.
- There are many possible appropriate standards. Each one may differ in its test methodology, weight range of the worker, and pass/fail requirements.
- The most commonly used standards are listed for each piece of equipment.
- Typical strength requirements may be listed for each piece of equipment to be used as a reference.
- The most critical element is to ensure that the equipment being used is appropriate for the job at hand.

Certification:

- All equipment shall be manufactured under an ISO 9001 or similar quality management program.

Care and Inspection of Equipment:

- Equipment shall be inspected and maintained according to manufacturer's specifications.
- The Rope Access Program Administrator shall establish and monitor an equipment inspection and maintenance program to ensure that:
  - Equipment inspection history can be traced from purchase to retirement.
  - Equipment is stored according to manufacturer's instructions.
  - Equipment is retired in adherence to manufacturer's criteria.
- Rope access technicians shall perform a functional and visual check before each use to confirm equipment serviceability.
- Rope access technicians shall ensure that equipment is properly stored.
- Records listing all equipment issued, referring to the original test or certificates of conformity should be kept.
  - In some cases it will be helpful if they also have relevant comments noting where the equipment was used, its storage conditions, and any incidents which could affect its life (e.g. unusual loadings, use in chemical or gritty atmosphere, exposure to salt-air, etc.).
  - The records should note when each piece of equipment was inspected, by whom and any remarks concerning its condition at that time.

Backup System:

- Requirements. The backup system shall:
  - Conform to 10.1 General.
  - Be maintained in a position as high as practical.
  - Be compatible with rope type and diameter.
- Recommended selection criteria. The backup system should:
  - Have a rating for rescue loads.
- The minimum strength of the backup system is based on the arrest force on the user.
  - Recent testing has shown that the maximum arrest force may not be adequate in determining a safe arrest force on the user.
  - The average arrest force should also be taken into account and may be more important to the user's safety than maximum arrest force.
  - ANSI/ASSE Z359.15 defines the maximum arrest force to not exceed 8 kN (1,800 lbf) and the average arrest force to not exceed 4 kN (900 lbf).
  - CE EN 12841 (Type A) only requires the maximum braking force (maximum arrest force), as measured during the braking period to not exceed 6 kN (1,350 lbf).
- The length of the lanyard is not specified since other factors of the backup system will restrict the length.
  - Factors include the free fall distance, how the backup system is used, and how the backup system is tested (e.g. an appropriate standard).
  - The free fall distance refers to the distance fallen before the engagement of the backup device.
  - Free fall distance does not include the distance fallen during deceleration (e.g. sliding of the backup device or deployment of a shock absorber).
  - The distance fallen during deceleration should be covered in appropriate standards with specific information for each device located in the manufacturer's instructions.
  - In practice, clearance requirements must be determined from the total fall distance including free fall, deceleration of the backup device, rope stretch, and harness stretch.
- Examples of appropriate standards in accordance with 10.2.3 include:
  - ANSI/ASSE Z359.15 (not tested for two-person load). CSA Z259.2.5 (not tested for two-person load).
  - CE EN 353-2.
  - CE EN 12841, Type A.

Harnesses:

- Requirements. Harnesses shall:

- Conform to 10.1 General.
- Be of the full body type.
- If a two-piece full body harness is used, it shall be certified as a full body harness.

- Recommended selection criteria:
  - Most rope access harnesses will have three primary attachment points:
    - Sternal: Upper frontal attachment point typically used for connecting a backup device or backup device lanyard.
    - Ventral (Waist): Lower frontal attachment point typically used for connecting work positioning devices such as lanyards, descenders, and ascenders.
    - Dorsal: Backside attachment point located between the shoulder blades, typically used in fall arrest.
  - Leg loops should be of sufficient width and design to support the wearer in a comfortable and safe working position while allowing unhindered operation of other equipment and tools.
  - The harness should be compatible with a work seat. Typically, the minimum breaking strength is 16 kN (3,600 lbf).
- Examples of appropriate standards in accordance with 10.2.3 include:
  - ANSI/ASSE Z359.11. CSA Z259.10.
  - CE EN 361.
  - ISO 10333-1.
  - NFPA 1983.

Connectors:

- Requirements.
  - Connectors shall conform to 10.1 General.
  - Carabiners used to support human loads shall be of a locking type (e.g. screw-gate or auto-locking gate).
- Recommended selection criteria (SECTION HELD):
- Typically, the minimum breaking strength in the direction of loading is 22.2 kN (5,000 lbf). Examples of appropriate standards in accordance with 10.2.3 include:
  - ANSI/ASSE Z359.12 (self-locking and self-closing types only). CSA Z259.12.
  - CE EN 362 (screw links are Class Q).
  - ISO 10333-5 (self-locking and self-closing types only). NFPA 1983.

Descenders:

- Requirements. Descenders shall:
  - Conform to 10.1 General.

- Allow for controlled descent and braking.

- Recommended selection criteria. Descenders should:
  - Be appropriate for the length of the descent.
  - Enable the user to stop and work hands-free.
- For long descents, consideration should be given to the effects of rope-weight and heat dissipation on descender performance.
- Consideration should also be given to reducing cumulative twisting of the rope.
- Examples of appropriate standards in accordance with 10.2.3 include:
  - CSA Z259.2.3.
  - CE EN 12841, Type C.
  - CE EN 341, Type A (rescue only). ISO 22159.
  - NFPA 1983.

Ascenders:

- Requirements. Ascenders shall:
  - Conform to 10.1 General.
  - Require two or more deliberate actions by the user to be removed from the rope.
  - Not slip under normal use.
- Recommended selection criteria. Ascenders should:
  - Be easily adjustable when moving up and down the working line.
  - Be suitable for specific use (e.g. mounted sternally).
  - Have attachment points for device lanyards and other devices.
- Examples of appropriate standards in accordance with 10.2.3 include:
  - CE EN 12841, Type B.
  - CE EN 567.
  - NFPA 1983.

Ropes:

- Requirements. Ropes shall:
  - Conform to General.
  - Be made from synthetic fibers.
    - Examples of synthetic fibers include nylon, polyester, and aramid fibers.
    - Consult with the manufacturer for the type and construction of ropes to be used in extreme environments.
- Recommended Selection Criteria.
  - Life safety ropes should be selected which have an outer sheath that resists undue wear from edges and system components and tight enough to resist the ingress of dirt and grit.
  - Ropes should be Static or Low Stretch.

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- In special circumstances, dynamic rope may be appropriate to be used in place of static or low stretch rope. Dynamic safety rope should be of a kernmantle construction compliant with UIAA/CE (or comparable) standards for single climbing ropes.
- Typically, 11 mm rope is used. The CI 1801 minimum breaking strength for 11 mm rope is 26.7 kN (6,000 lbf).
- Examples of appropriate standards include:
  - CI 1801.
  - ANSI Z359.15.
  - CE EN 1891, Type A.
  - NFPA 1983.

Lanyards:

- Requirements.
  - Lanyards shall conform to 10.1 General.
  - If a lanyard is used as part of a backup system, the work positioning lanyard shall comply with 10.5 Backup System.
- Recommended practices.
  - Lanyards (e.g. cows tails) should have sewn terminations or be terminated with an appropriate knot.
  - Lanyards should be as short as practical in order to minimize fall potential.
- The same lanyard is often used for all work positioning lanyard cases.
  - For tied lanyards, data has shown that a barrel knot (sometimes referred to as a scaffold knot) is the preferred knot to use due to its energy absorbing properties. The knot may consist of either two or three wraps.
  - As part of the inspection process, knots should periodically be re-tied, dressed and set (e.g. hand- tightened).
- For work positioning lanyards, typical minimum breaking strength is 17.5 kN (4,000 lbf).
  - If knots are used, the minimum strengths should be obtained after knots are tied.
  - Special care should be taken with high modulus fibers such as Spectra, Kevlar, Vectran and similar fibers with minimum elongation, which may fail when subjected to shock loading.
- Examples of appropriate standards in accordance with 10.2.3 include:
  - CE EN354.
  - CE EN358. CE EN89
  - ISO 10333-2.

Helmets:

- Requirements. Helmets shall:

- Conform to 10.1 General.
- Be suitable for the type of work being undertaken (e.g. electrical work).
- Have a chinstrap or other retention system to prevent the helmet from coming off the head, whether the user is upright or inverted.
- Properly fit the user.

- Recommended selection criteria. Helmets should:
  - Allow unrestricted vision.
  - Have the ability to mount accessories such as a visor or headlamp.
- Examples of appropriate standards in accordance with 10.2.3 include:
  - ANSI Z89.1, Type 1 or Type 2. CSA Z94.1.
  - CE EN 397.
  - CE EN 14052.
  - CE EN 12492.

Pulleys.

- Requirements. Pulleys shall:
  - Conform to 10.1 General.
- Recommended selection criteria (SECTION HELD):
- Examples of appropriate standards in accordance with 10.2.3 include:
  - CE EN 12278.
  - NFPA 1983.

Falling/Dropped Object Prevention

The purpose of this practice is to protect workers from injuries and property from damage associated with items dropping from above. Eliminating the potential for dropped object accidents is an important part of any safety program where workers and tools are used at heights. And while everyone knows dropped objects are dangerous, what might not be as obvious is just how dangerous they can be. An object that weighs less than three pounds if dropped from a height of 30 feet can be fatal; even dropping an item as small as a screw can cause injury or physical damage below.

Training

All workers on site must be trained on how to prevent items from falling as well as not walking under workers, when appropriate. Workers will be trained on potential hazards. This training will be formally completed, likely in a Safety Meeting setting annually. Site specific training will be completed at each location during the daily hazard assessment, as required.

Practice

Every jobsite is different. A plan must be put in place where the potential of workers working under (or just walking under) other workers exists. The following must be considered when developing a plan:

- Take notice of the potential for falling objects during all hazard identifications and inspections. Additionally, this includes inspecting the equipment or platform to ensure all fastening devices (screws, rivets, etc) are secure.
- Take note of particular weather conditions that can elevate risk including ice, wind, etc. Keep in mind ice and snow can create a hazard of their own; prior to any work where snow or ice may dislodge and injure a worker a mitigation plan (likely removal of the snow or ice) must be completed.
- Consider the use of the following:
    - Safety nets.
    - Tethers for tools.
    - Tool belts.
    - Exclusion areas (cordoned off to prevent injury).
    - Physical overhead / under feet sheeting and protection.
    - Side barriers to prevent rolling items from slipping off.
    - Removing any items that are not immediately needed.
    - Handling plans for passing objects at heights.

Reporting

All contact by a dropped object must be reported and investigated. All items that have been dropped (with no injury or contact with another person) must be

reported as a near miss. This will make it easier to track trends and locate specific areas where dropped object risks are greater.

Fire & Explosion

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for Fire and Explosion.

Training and Competency
All Westward workers receive fire and explosion prevention and emergency training at orientation and during WHMIS training. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Specific training is given to all workers who handle, use, store, produce, or dispose of a flammable substance that may spontaneously ignite or ignite when in combination with any other substance. All workers who are required or permitted to perform work associated with flammable substances are trained in and will implement, the procedures developed.

Workers are provided hot work training before performing welding, cutting, grinding, and/or other types of hot work, this training includes information set out in this practice. Workers must be qualified to operate the equipment that is producing the Hot Work. Workers who authorize hot work and those who conduct fire watches are trained on the hot work program, and on emergency response procedures.

Workers must be competent when working with welding equipment. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All workers are trained in and implement the procedures developed, where applicable, for compressed and liquefied gas systems and the procedures for Hot Taps (piping).

Specific fire safety plan training will be given to the designated workers. Those workers will be adequately trained in their assigned fire safety duties and how to implement them. Part of this training at Westward includes a fire drill at least once a year. All fire drill documentation will be kept at the Westward main office.

All training and formal education documents must be on file.

Fire Safety Plan

At Westward our ultimate goal is to prevent the outbreak of fire at our place of employment, if that is unsuccessful we aim to provide effective means to protect workers from any fire that may occur. Westward has developed and implemented a written fire safety plan that provides for the safety of all workers in the event of a fire.

This fire plan includes:

- The emergency procedures to be used in case of fire
- The quantities, locations and storage methods of all flammable substances present at the place of employment;
- The designation of persons to carry out the fire safety plan and the duties of the designated persons;
- The training of designated persons and workers in their responsibilities for fire safety; and
- The holding of fire drills.

Fire Emergency Response Procedure

1. Remain calm!
2. Sound the fire alarm.
3. Ensure all personnel are accounted for and out of danger.
4. Evacuate endangered workers, with special provisions for workers with disabilities.
5. If a minor fire, activate extinguishing facilities. DO NOT jeopardize personnel safety.
6. If a major fire, call nearest fire department or fire control team.
7. Take reasonable steps to minimize loss of equipment. Disconnect electrical equipment if it is on fire and only if it is safe to do so.
8. Control the fire hazards.
9. Do not break windows.
10. Do not open a hot door (before opening a door, touch it near the top. If it is hot or if smoke is visible, do not open).
11. Do not attempt to save possessions.
12. Meet in the park across the street (if at the office), if at a jobsite meet at the designated muster point.
13. Do not return to the affected area until told to by the fire department.
14. If a minor fire occurred, conduct an investigation and develop an incident report.

Fire Extinguishers

All portable fire extinguishers at Westward are selected, located, inspected, maintained, and tested to ensure safety in the event of a fire emergency. All portable fire extinguishers are placed not more than nine metres away from each

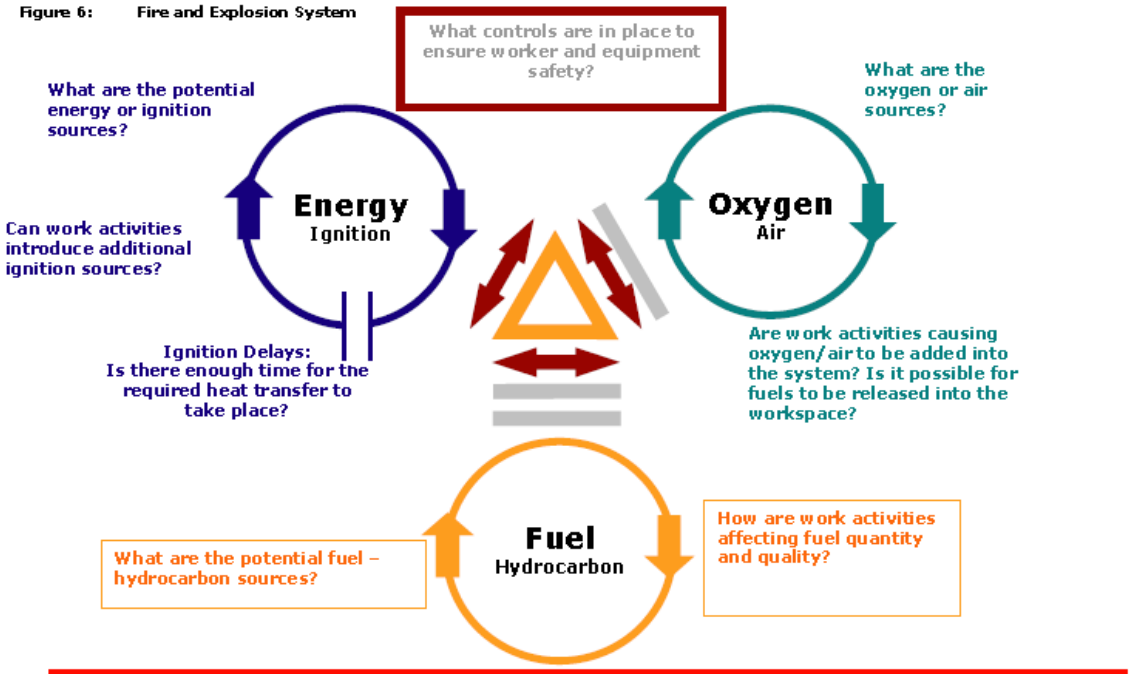
industrial open-flame portable heating device, tar pot or asphalt kettle that is in use and each welding or cutting operation that is in progress. A Class B (or ABC) fire extinguisher must be readily available when working with or near flammable and combustible liquids. Fire extinguishers are inspected monthly in-house and sent out to be maintained yearly.

Garbage as a Fire Hazard
All garbage at Westward is put into covered receptacles. It is important to practice good housekeeping at Westward.

Hazard Assessment
Prior to the commencement of work, or when a process changes Westward employees are required to complete a hazard assessment. This assessment looks at the following Fire and Explosion safety issues: inventory of all flammable substances, determination of whether the location is Hazardous or not (based on the CSA Electrical Code), and verification that proper labeling, containers, amounts required to do the task, and safe storage locations are being adhered to.

The hazard assessment will use the following Fire Triangle to assess the potential for fire / explosion:

Figure 6: Fire and Explosion System



Points to Remember
1. Anytime all three sides of the fire triangle can co-exist, there is real potential for a fire or explosion.
2. There are critical risk factors that increase the probability of a fire and explosion significantly. (See 18.4.3)
3. The system is dynamic and circumstances change over time. As a result, safe situations may become unsafe.

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If the hazard assessment indicates the potential for any explosive substance to have entered the atmosphere in the area where the work is to commence Atmospheric testing (personal and/or area monitors) must be utilized. Atmospheric testing results should be assessed before a worker is exposed. A person must not enter or work at a work area if more than 10 percent of the lower explosive limit of a flammable or explosive substance is present in the atmosphere.

Personal Protective Equipment

A worker involved in welding or burning operations must wear:

- flame resistant work clothing,
- gauntlet gloves of leather or other suitable material and arm protection,
- an apron of leather or other suitable material for heavy work,
- eye and face protection against harmful radiation, particles of molten metal, and while chipping and grinding welds, and
- substantial safety footwear made of leather or other suitable material.

Respiratory protective equipment must be provided and worn if an effective means of natural, mechanical, or local exhaust ventilation is not practicable including during short duration welding, burning or similar operations or emergency work.

Special precautions are required when performing Arc Welding. All workers who may be exposed to radiation from the arc flash must be protected by adequate screens, curtains or partitions, or wear suitable eye protection. A screen, curtain or partition near an arc welding operation must be made of or be treated with a flame resistant material or coating, and must have a non-reflective surface finish.

Safe Handling and Storage of Flammable Substances

Westward ensures that flammable liquids or explosive dusts that are stored or used at a work area will not be of sufficient quantity to produce an explosive atmosphere. The following safety issues are ensured:

- All sources or potential sources of ignition are eliminated or controlled where an explosive atmosphere exists or is likely to exist (this includes cigarette smoking, sparks from welding or grinding, open-flames, etc);
- A flammable substance is not stored within 30 meters of an underground shaft.
- Flammable and combustible substances must be stored in areas away from substances that may cause a reaction, such as an oxygen tank.
- A flammable substance is not stored in the immediate vicinity of the air intake of a ventilation supply system, an internal combustion engine, or a fired heater or furnace.
- Flammable substances are stored only in containers approved by CSA, NFPA, or ULC Standards.

- A container that may have held a combustible substance must be thoroughly cleaned before any welding or burning operation is carried out on the container.
- All materials contaminated by flammable liquids are placed in receptacles that: are non-combustible and have close-fitting metal covers, are labeled “flammable”; and are located at least one metre away from other flammable liquids.
- Where work involves the use of a flammable liquid, vapour, or gas, the concentration of the liquid, vapour, or gas in the work area must be maintained a minimum of 10% below the lower explosive limit (LEL) of the substance involved.
- Combustible and flammable liquids are kept in fire resistant receptacles (cabinets or rooms) with adequate ventilation that meet the requirements of the National Fire Code of Canada 1990, respecting the storage of flammable and combustible liquids.
- No gasoline may be used to start a fire or used as a cleaning agent.
- No worker is required or permitted: to replenish a tank on a heating device with a combustible or flammable liquid while the device is in operation or is hot enough to ignite the liquid.
- Static electricity must be controlled while the contents are being transferred from one metallic or conductive container to another by grounding or bonding.
- Waste material contaminated with a solvent, oil, grease, paint, or other flammable substance must be placed in covered metal containers before disposal and must not be stored in work areas.

Transporting Flammable Substances

Workers are not allowed to service or perform maintenance of a vehicle while a flammable liquid or gas or an explosive substance is loaded into or unloaded from the vehicle or is present in the vehicle in any place other than the fuel tank.

A worker who operates a vehicle that contains a flammable liquid or gas or an explosive substance must shut off the vehicle during the connection or disconnection of the lines for the loading or unloading of the flammable liquid, gas or explosive substance. Tank Trucks must always be grounded prior to loading any flammable or potentially flammable substance. A few seconds could save your life!

Decontamination

Preparation for spill or leak that may cause contamination to you and your clothing is important. All Westward employees must keep a change of day-to-day clothing in the work vehicle and have access to a change of coveralls. If your clothing/and or skin is contaminated with a flammable or combustible liquid, the following procedure must be adhered to:

- Avoid any activity where a spark or open flame may be created or exists,
- Remove the contaminated clothing and ensure the clothing is decontaminated before it is used again,
- Wash any areas on your body that liquid has touched at the earliest possible time, and,
- Consult the SDS for more information, including health hazards.

Internal Combustion Engines in a Hazardous Location

Not all vehicles in our fleet are equipped with a combustion air intake and exhaust discharge with a flame-arresting device. Know your vehicle. Whenever, possible, all vehicles should be parked outside any hazardous or potentially hazardous location. If the task requires your vehicle to enter a hazardous area ensure that it is equipped with a combustion air intake and exhaust discharge with a flame-arresting device.

If an event, such as a gas leak or spill of a flammable product occurs all vehicles must be left parked, do not go back into your vehicle for any reason. Re-entering a vehicle may create a static charge that may cause an explosion.

Precautions for Hot Work

Hot work permits must be used when heat or sparks are generated by work such as welding, burning, cutting, riveting, grinding, drilling, and where work involves the use of pneumatic hammers and chippers, non-explosion proof electrical equipment (lights, tools, and heaters), and internal combustion engines.

Workers performing hot work must wear appropriate protective equipment. Appropriate PPE includes, but is not limited to, leather gloves with arm protection, flame retardant work clothing, leather apron, and welder's helmet.

Recently welded or flame cut work must be marked "HOT" or effectively guarded to prevent contact by a worker, if a worker not directly involved in the hot work is likely to enter the work area.

Westward ensures that before a hot work process has begun:

- A hot work permit is issued.
- An inspection is completed to ensure the area is free of fire hazards. The surrounding area must be free of flammable and combustible material to a minimum distance of 35 feet in every direction. If this is not practicable, flammable liquids and combustible materials should be covered with a flame resistant material. Combustible floors should be dampened with water. Westward workers are not required or permitted to perform any hot work in the vicinity of a material that may constitute a fire hazard until suitable steps have been taken to reduce the risk of fire.

- A container or piping that contains or has contained a flammable substance must be purged using an effective method to remove the flammable substance from the container or piping before any hot work is begun on that container or piping.
- Ensure continuous safe performance of the hot work. For example do not start work on a project if enough time is not allotted to complete or have another employee complete the task.
- Atmospheric testing is completed. The atmosphere must not contain a flammable substance, in a mixture with air, in an amount exceeding 10 percent of that substance's lower explosive limit for gas or vapors, or the minimum ignitable concentration for dust. Portable detectors for combustible gases must be placed in the area to warn workers of the entry of these gases. No hot work may begin until suitable tests have been conducted that indicate whether the atmosphere contains a flammable substance in a quantity sufficient to create an explosive atmosphere and confirm that the work may be safely performed and the work procedures developed have been implemented to ensure continuous safety. While hot work is being performed, Westward shall conduct tests at intervals appropriate to the work being performed and record the results.
- Metal that has been cleaned with a flammable or combustible liquid has thoroughly dried.
- Equipment including fire extinguisher and a communication system (phone) is on hand before the hot work begins.
- No oil, grease or other contaminant contacts a cylinder, valve, regulator or any other fitting of an oxygenizing apparatus, an oxygen distribution or generating system.
- It is ensured that oxygen is not used as a substitute for compressed air: in pneumatic tools; to create pressure; for ventilating purposes; or to blow out a pipeline.
- Where gas burning or welding equipment is in use, approved flashback devices are installed on both hoses at the regulator end and acetylene and liquefied gas containers are used and stored in an upright position.
- Where electric arc welding or cutting operations are performed, a protective screen must be used to protect the other workers in the area from harmful radiation.

Hot Taps

When a line or pressure vessel shutdown is unavoidable a hot tap may be required. Where workers are required or permitted to work on piping that may contain harmful substances or substances under pressure, Westward will develop written procedures specific to the type or class of hot tap to protect the workers from contact with those substances before hot tap work begins. The procedures developed must include:

- the installation of a blank that is appropriate for the proper pressure in the piping;
- the closing of two blocking valves installed in the piping and the opening of a bleed-off valve installed between the blocking valves;
- the installation of an approved safety device; or
- where the procedures are not reasonably practicable, any other procedures that are adequate to protect the health and safety of the workers.

Only those welders competent in hot taps may perform them.

CSA and Manufacturers Requirements
Westward complies with the requirements of CSA Standard W117.2-06, "Safety in Welding, Cutting and Allied Processes." Westward ensures that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired, and dismantled in accordance with the manufacturer's specifications.

Inspections
Prior to the commencement of an allied process or welding you must ensure that the area surrounding the operation is inspected and all combustible, flammable or explosive material, dust, gas or vapour is removed, or alternate methods of rendering the area safe are implemented. If it is not safe to weld, do not begin the job.

Protecting Workers
If a welding or allied process if performed above an area where a worker may be present, you must ensure that adequate means are taken to protect a worker below the operation from sparks debris and other falling hazards. If protection of workers below is not feasible the work must stop.

When hot work generates sparks and/or hot slag, a fire watch must be conducted while hot work is underway, and for 30 minutes following completion.

A coating on metal which could emit harmful contaminants (such as lead, chromium, organic materials, or toxic combustion products) must be removed from the base metal, whenever practicable, before welding or cutting begins.

Electric Welding Machine
All Westward electric welding machine operators must not leave the machine unattended without removing the electrode.

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Welding and Ground Leads
Westward ensures that appropriate welding and ground leads are used to fasten the electric supply cable securely.

Prevention of Leaks While Welding
Westward ensures that a regulator and it's flexible connecting hose are tested immediately after connections to a gas cylinder to ensure that there is no leak of the gas supply. If a leak of the gas supply develops during gas welding or an allied process, the supply of gas must be immediately shut off by the worker performing the welding or allied process, and the work is not resumed until the leak is repaired. An out-of-service tag will be placed on the equipment until the leak is repaired and/or defective parts are replaced.

Welding Services from Vehicles
Westward ensures that all compressed and liquefied gas cylinders and horizontal cylinders are stored as per the manufactures specifications. Storage compartments for compressed gas cylinders must meet legislative requirements. The cylinders must have their valves closed when not in use and to prevent rolling in the vehicle must be securely attached to the vehicle. Cylinders must not be handled by their valve or valve protection cap.

Welding services provided from vehicles must comply with CSA Standard W117.2-06, *Safety in Welding, Cutting and Allied Processes*.

Safe Work Procedure for Compressed and Liquefied Gas
Westward ensures that the safe work procedures are followed for the storage and use of compressed and liquefied gas. A compressed and liquefied gas cylinder if punctured can act as a missile and cause damage to the building and hurt people. Be respectful of this danger!

The following written procedures for the safe installation, use and maintenance of a Compressed and Liquefied Gas system are readily available for reference by workers before requiring or permitting the use of the system:

- A cylinder of compressed flammable gas must not be stored in the same room as a cylinder of compressed oxygen, unless the storage arrangements are in accordance with the Fire Code;
- The compressed or liquefied gas cylinders, piping and fittings are protected from damage during handling, filling, transportation, and storage. A cap can be added to the top of the cylinder for protection;
- The compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and oxygen

cylinders or valves, regulators or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease;

- The compressed or liquefied gas cylinders must not be exposed to heat sources that generate temperatures that may result in the failure or explosion of the contents or the system, or exceed the maximum exposure temperatures specified by the manufacturer;
- A flashback device is installed at either the torch end or the regulator end, and a backflow prevention device is installed at the torch end;
- The compressed or liquefied gas cylinders are secured, upright, and cannot fall or roll;
- At all times the cylinder containing acetylene (used in welding operations) is secured to prevent falling and stored upright.
- Compressed gas equipment designed to be used with a specific gas is only used with that gas;
- The cylinder valve is shut off and pressure in the hose is released when cutting or welding is not in progress;
- Sparks, flames or other sources of ignition are not allowed to come in contact with the cylinders, regulators or hoses of a compressed or liquefied gas system.

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Fishing and Pulling Wires

The most common injury incurred by electrical workers during cable pulling is over exertion. Pulling in confined spaces is particularly difficult. Workers should exercise care and caution under such conditions. Get help when necessary and use mechanical means wherever possible.

To follow are some helpful hints to ensure a safe pull.

1) Secure cable reels in approved racks or jack stands. *The use of gloves is mandatory when pulling any size of cable.

2) Jet lines must not be used in manholes unless forced ventilation is provided at each end of the run. When using jet lines for other applications, ensure that there is sufficient cross-ventilation to disperse carbon dioxide gas (CO2).

3) You should utilize a fiberglass fish tape when working around live equipment. Fiberglass Tapes are nylon coated and are non-conductive for working live circuits. Available in 50' lengths with or without "goldfish" leader. Spring Steel Tapes are 1/8" x .060" and come in 50', 100' and 200' lengths. When using steel fish tapes, make sure the ends do not flop about causing damage or encounter live equipment. It is good practice to always have a co-worker where you expect the fish tape to surface.

4) If possible, avoid cutting the fish tape so that the next user does not come up short. The fish tape was purchased at a desired length and the user after you expects that length to be there.

5) Ensure the fish tape is rewound in its original condition. We hope Westward fish tapes will last a long time with maximum durability, and easy comfortable use. Do not attempt to remove the fish tape from its case. The case maintains positive tension on the fish tape to prevent scrambling.

6) When using a tugger, make sure the tugger is securely attached to a solid object, and that it is of correct size. Inspect condition of pulling ropes and attachments for suitability and ensure all sheaves and rollers are adequately secured.

7) Workers should stand clear of the direction pull when using power winches for long heavy cable pulls and maintain communication with members of the cable pulling crew. Radio communication is preferred.

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8) Always protect the cable. Remove burrs from edge of conduit. Swab the conduit to remove debris. Use approved cable-lubricating fluid to reduce loads. Protect the cable ends from moisture. Flag off areas to control personnel and protect the cable.

9) Ensure adequate time is available to complete the pull. We never leave a cable at full tension. The chances of having the cable damaged or causing personal injury to an ignorant passerby greatly increase when the cable is in midair or not correctly laid in the tray.

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Forklift

The purpose of this forklift program is to protect employees and contractors from injury.

It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for forklifts.

Training
All Westward workers who operate forklifts must be trained. The training will occur before the employee is expected to drive the forklift. Formal instruction includes lecture, discussion, and written materials. Practical training involves instructor demonstrations and trainee exercises with operator competence evaluations. Only competent workers are required or permitted to operate forklifts.

Inspection
The employees of Westward are required to complete a visual inspection of the equipment and the surrounding area before operating any forklift. Where industrial trucks are used on a round-the-clock basis, they must be examined after each shift. The inspection ensures that the equipment is in a safe operating condition and that no worker, including the operator is endangered when the equipment is started up. A competent worker (on the specified forklift) must also perform an inspection as is necessary to ensure that it is capable of safe operation. The inspection includes walking around the forklifts and ensuring that it is in good working order. All defects or conditions affecting the safe operation of the equipment must be reported to your supervisor immediately. The supervisor will determine if it is safe to use or if it must be repaired before using. As soon as is reasonably practicable the defect must be repaired or the unsafe condition is corrected.

A record of the inspections and maintenance carried out on all equipment is located in or on all equipment; this assures it is readily available to any worker who is operating the equipment.

General Provisions
The following controls are addressed, where applicable:

Engineering

- Where there is a danger to the operator of a forklift or any other worker who is required or permitted to be in the forklift from a falling object or projectile, the forklift will be equipped with a suitable and adequate cab, screen or guard.

- Every forklift is equipped with a seat belt for the operator if the forklift is equipped with a seat.
- Every forklift is provided with a durable and clearly legible load rating chart that is readily available to the operator.

Administrative

- The Westward operator must maintain full control of the equipment at all times.
- The forklift must be kept free of objects that could interfere with the operation or create hazards. Such hazards could be objects leaning on, or under the powered mobile equipment that are not noticed before operating the machine.
- Where a worker may be endangered by the movement of a load or a part of the forklift, Westward workers are not required or permitted to remain within range of the moving load or part.
- Operators must verify the use of trailer chocks, supports, and dock plates prior to loading/unloading.
- Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower forks, and/or set the parking brake.

Personal Protective Equipment (Seat Belts and Helmets)

- The Westward operator must use seat belts or other restraining device required. Passengers are not allowed.
- No worker may be transported on the top of a load that is being moved by a forklift.

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General Work Requirements

It is the responsibility of Westward to ensure a safe work area for all workers. The following requirements are intended for all area of operations:

Housekeeping
All floors must be kept clean and free from materials or equipment that could cause workers to slip or trip. Any chemicals, bodily fluids, or toxins must not be left out when not in use.

All floors, platforms, walkways, ramps and stairs available for use by workers must be maintained in a state of good repair and kept clean and free from materials or equipment that could cause workers to slip or trip. If areas are converted to storage and taken out of service as part of the general work area all reasonable means for preventing entry or use must be taken.

This must be maintained daily as part of the job you are working on.

Vehicle Traffic Control
When our work is being done on or around public roads you must use/rent signs warning oncoming traffic that you are working ahead.

If the vehicle you are driving breaks down pull off the road as far as you can, then ensure you turn on your four-way flashers so that you are visible.

Tire Servicing
Westward employees are not qualified to inspect, disassemble and reassemble a tire or tire and wheel assembly. This service must be performed by professionals and NO employees are allowed to perform this task.

Compressed Air
Compressed air must not be directed towards a worker for the purpose of cleaning clothing or personal protective equipment or for any other purpose if the use of compressed air may cause dispersion into the air of contaminants that may be harmful to workers. Compressed air or steam must not be used for blowing dust, chips, or other substances from equipment, materials, and structures if any person could be exposed to the jet, or to the material it expels or propels. Cleaning objects, machinery, bench tops, clothing and other things with compressed air is dangerous. Injuries can be caused by the air jet and by particles made airborne.

Compressed air is extremely forceful. Depending on its pressure, compressed air can dislodge particles. These particles are a danger since they can enter your eyes or abrade skin. The possible damage would depend on the size, weight, shape,

composition, and speed of the particles. There have also been reports of hearing damage caused by the pressure of compressed air and by its sound.

Compressed air itself is also a serious hazard. On rare occasions, some of the compressed air can enter the blood stream through a break in the skin or through a body opening. An air bubble in the blood stream is known medically as an embolism, a dangerous medical condition in which a blood vessel is blocked, in this case, by an air bubble. An embolism of an artery can cause coma, paralysis, or death depending upon its size, duration, and location. While air embolisms are usually associated with incorrect diving procedures, they are possible with compressed air due to high pressures. While this seems improbable, the consequences of even a small quantity of air or other gas in the blood can quickly be fatal.

Unfortunately, horseplay has been a cause of some serious workplace accidents caused by individuals not aware of the hazards of compressed air, or proper work procedures.

A brush or a vacuum cleaner should be used instead of compressed air for cleaning purposes.

Lighting
At Westward while workers are present at a worksite lighting that is sufficient to protect the health and safety of workers and suitable for the work to be done at the worksite must be provided. If it cannot be provided work must cease.

Contaminated Areas
No worker is permitted to eat or drink anywhere at a workplace that is, or may be, contaminated by a hazardous substance.

Access to Work Areas
There must be a safe way of entering and leaving each place where work is performed. Exits must be clearly marked and be free and clear of any obstacles. All work areas should have two points of access/egress to ensure a safe way to exit in an emergency. Prior to the onset of work workers are informed of all access/egress points; if an escape route is or may become hazardous all workers are instructed not to use this route.

Restricted Areas
Locked doors must secure hazardous areas that are not intended to be accessible to workers or equivalent means of security, and a conspicuous sign must be posted at or near the area clearly indicating that it is not to be used.

Smoking

No worker is allowed to smoke in an enclosed place of employment, worksite or work-related area except in an area designated for smoking.

Grinding Safety

GENERAL SAFETY:

1. **Keep** combustible materials away from grinding area.
2. **Wear** a face shield to prevent impact or burn injuries.
3. **Don't** adjust a GRINDER while it is running.
4. Never remove the **guard** from a grinder.
5. **Hold work firmly when using a grinder**.
6. Check hand-grinder electrical cord before use.

GRINDING WHEEL:

1. **Stand to one side** away from the grinding wheel for one-minute before grinding. (In case wheel breaks).
2. Use **correct type** of grinding wheel for the job.
3. Use wheel washers when installing wheel.
4. Examine grinding wheel for cracks or chips.
5. Do not grind **on the side** of a regular wheel.
6. Dress wheel regularly.
7. Don't press **too** hard onto wheel.
8. **The grinding wheel must be rated for the RPM speed of the motor**. Most grinding problems are caused by mis-matching the wheel speed with the rated speed of the blade.
9. Do not store abrasive wheels where they would be exposed to high temperature, high humidity, liquids, or freezing temperatures or where they could be subjected to physical damage.

MATERIAL REST:

1. Material rest should not be more than **1/8 inch** (3mm) from grinding wheel.
2. Material rest should be **above** the wheel center-line.

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Ground Disturbance

Ground disturbance is a work operation or activity that results in a disturbance or displacement of the soil. That means that any time a piece of equipment is required to break the ground you must follow ground disturbance procedures.

Examples of Ground Disturbance include: excavating, digging, trenching, plowing, drilling, tunneling, auguring, backfilling, driving of posts, bars, and pins, topsoil stripping, land leveling, quarrying, tree planting, rock picking, grading, blasting, and clearing.

The following are exemptions to this policy

- Routine minor road maintenance,
- Agricultural cultivation to a depth of less than 450 millimeters below the ground surface, or
- Hand-digging to a depth of no more than 30cm below the ground surface.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures.

Training and Competency
All Westward employees who may be required to work in or around any boring, drilling, excavating, earth moving, locating, etc. must take in-house training to become familiar our policies. All Westward workers must have the proper combination of experience, knowledge, and education to perform the work required.

All field employees who cause or supervise ground disturbance activities are required to take the Ground Disturbance II course and update that training every 3 years.

Workers must be competent when working around or supervising ground disturbance activities. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file.

Locating Underground Lines
In Alberta, advise Alberta One Call (at least 2 full days or at most 2 weeks), prior to any digging or boring and get underground pipes, cables, conduits, and other underground facilities clearly marked prior to beginning any excavating.

In British Columbia, advise BC One Call (at least 3 full days in advance of ground disturbance) at 1-800-474-6886 (or *6886 on TELUS or Rogers Mobility), prior to using power tools or powered mobile equipment on an excavation, trench, tunnel, excavated shaft or borehole, or before breaking ground surface with any equipment to a depth that may contact underground utilities.

In Saskatchewan, advise Sask 1st Call (at least 2 full days or at most 2 weeks) at 1-866-828-4888, prior to using power tools or powered mobile equipment on an excavation, trench, tunnel, excavated shaft or borehole, or before breaking ground surface with any equipment to a depth that may contact underground utilities.

If the marks have become unclear (cattle knocking stakes down, farmer cultivating over mark, etc.) the area must be located again.

Excavation or drilling work in proximity to an underground service must be undertaken in conformity with the requirements of the owner of the service. Pointed tools must not be used to probe for underground gas and electrical services. Powered equipment used for excavating must be operated so as to avoid damage to underground utility services, or danger to workers.

Check with the Operating Company you are working for to further identify undergrounds that may exist. Some plastic or fibreglass lines may not be registered or have a tracer. If you are excavating around a pipeline a Pipeline Crossing Agreement may be required, particularly if the line is owned by a third party. The agreement will outline the personnel responsibilities as well as any conditions or limitations for the ground disturbance activity.

When a pipe/buried facility is exposed, the owner must be notified at least 24 hours prior to backfilling. The owner must inspect the buried facility to ensure its condition is satisfactory. If the owner cannot be contacted or fails to inspect, the ground disturber must take photos and demonstrate that they made an effort to make contact with the owner. All records of inspections should be kept for the life of the buried facility.

Hire a private company to scan the area since not all pipeline companies are members of the One Call systems. This should be done in conjunction with surveying the workspace so that we do not trespass.

The following is the utility locating color-coding:

Red	electric power lines, cables, conduit, and lighting cables
Orange	telecommunication, alarm or signal lines, cables, or conduit

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Yellow	natural gas, oil, steam, petroleum, or other gaseous or flammable material
Green	sewers and drain lines
Blue	potable drinking water
Violet	reclaimed water, irrigation, and slurry lines
Pink	temporary survey markings, unknown/unidentified facilities
White	proposed excavation limits or route

Permits
Obtain a Work Permit and Ground Disturbance Permit for any work to be done on a site from the company you are working for. This is to ensure that all pre-job activities are complete and the crossing agreements or approvals are complete. The permit should include the requirements listed in the crossing agreements/approvals, identification of hazards and controls, and evidence of communication to affected personnel.

Exposing Buried Facilities
If the locators have identified any lines within 5m of the proposed disturbance area hand exposure of that line is required. Mechanical excavation equipment is not permitted within the hand expose (hydrovacing is a method of hand exposure) zone of a buried facility until the buried facility has been exposed to sight.

Mechanical excavation equipment must not be within 600 millimeters of a buried pipeline unless the use of the equipment is under the direct supervision of a representative of the owner of the buried pipeline.

Prior to burying any exposed pipe with soil, photos must be taken to document the condition of the pipe. These should be kept on file. Care must be taken to avoid using soil with large rocks or clods that may damage the line.

Soil Classification
If personnel or equipment will be working in or near an excavation the soil must be classified.

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Soil characteristics	*Soil Type*		
	Hard and compact soil	**Likely to crack and crumble soil**	**Soft, sandy or loose soil**
Consistency	Hard, very dense in compactive condition	Stiff, compact in compactive condition	Firm to very soft, loose to very loose in compactive condition
Ability to penetrate	Only with difficulty by a small, sharp object	With moderate difficulty with a small, sharp object	With ease
Appearance	Dry	Damp after it is excavated, has low to medium natural moisture content	Appears solid but flows or becomes unstable when disturbed. Can be dry, running easily into a well-defined conical pile, or wet.
Ability to excavate with hand tools	Extremely difficult	Moderately difficult	With ease
Water seepage	Shows no signs of water seepage	Shows signs of localized water seepage	
Other	Does not include previously excavated soil	Shows signs of surface cracking	Is granular soil below the water table, unless the soil has been dewatered Exerts substantial hydraulic pressure when a support system is used.

Work Standards

During any of the following, excavation work must be completed in accordance with written instructions (including the support and sloping requirements, and the subsurface conditions expected to be encountered) developed by a professional engineer:

- if the excavation is more than 6 m (20 ft) deep,
- support structures, other than approved shoring methods, are used in the excavation,
- an improvement or structure is adjacent to the excavation,
- the ground slopes away from the edge of the excavation at an angle steeper than 3 horizontal to 1 vertical, or
- the excavation is subject to vibration or hydrostatic pressure likely to result in ground movement hazardous to workers,
    - An excavation may be considered "subject to vibration" if there is activity such as heavy vehicle traffic, blasting, road compaction equipment, or compaction during backfill placement close to the excavation. The severity of the vibrations as well as the distance between the activities to the excavation must be considered.
    - Hydrostatic pressure is a concern if water is coming out of the sides or base of an excavation. Engineering is required unless an effective

dewatering system can be implemented. If water can be prevented by the use of a dewatering system, hydrostatic pressure should not be a problem. Using a water pump to remove nominal surface runoff (such as from rainfall) should be acceptable without engineering. If the soil adjacent to an excavation has undergone significant changes in moisture content, the stability of the excavation sides may be in question. Soil that is frozen, or may freeze due to the ambient air temperature during the excavation work, may cause development of hydrostatic pressure and thus such excavation work should only be undertaken following an engineer's instructions.

General Guidelines

Equipment like bulldozers, drill trucks, trackhoes, trucks, and backhoes will often be moving. The operator will be concentrating on getting and moving the earth that must be dealt with. Individuals working in the proximity of earth moving equipment must:

- Start the day's work with a safety meeting with the equipment operators to discuss the job and so that all personnel recognize all the hazards, the roles and responsibilities, buried facilities/pipelines, emergency procedures, etc. If a new hazard is identified stop work and reconvene with all workers. All employees involved should be in attendance for this meeting.
- Advise the operators about the work you will be doing and where you will be doing it.
- Ensure a competent worker is stationed at the surface of the trench to warn workers in the trench of danger and to provide emergency help.
- Remember natural freezing of the soil cannot be used instead of a temporary protective structure or cutting back the side of the wall in British Columbia.
- Always watch where the heavy equipment is working as you perform your duties. Pay particular attention to the backup warning signal from the equipment. The operator may be unable to see you.
- Keep clear of the equipment when it is moving. Keep away from moving parts of the equipment when the equipment is in operation.
- Worker or equipment must be prevented from falling into an excavation by the use of physical barriers or signs. Using snow fence, concrete barriers, flagging, marking, safeguards, personnel, or other appropriate and effective means may do this. If an excavation is a hazard to workers, it must be effectively covered or guarded.
- In British Columbia, spoil piles, equipment, rocks and construction materials must be at least 60 cm (2 ft) away from the edge of the excavation and 1.2 m (4 ft) from any other excavation. In Alberta and Saskatchewan, spoil piles must be at least 1 meter away from the edge of the excavation, the slope of a spoil pile adjacent to the excavation must be at an angle of 45 degrees or

less from the horizontal. Loose materials must be scaled and trimmed from the spoil pile. Under no circumstances may excavated material be piled so that it endangers workers.

- Walkways must be secured to prevent dislodgment.
- The open side of an access route into an excavation used by mobile equipment must have a curb.
- Personnel must not enter an excavation unless the side has been cut back at 45 degrees to prevent possible collapse of the trench or excavation. Westward must ensure that the walls of an excavation are cut back safely as per the Code.
- If personnel are required to enter an excavation:
    - It must be kept free of an accumulation of water that may pose a hazard to the worker. Water must not be allowed to accumulate in an excavation if it might affect the stability of the excavation or might endanger workers. Erosion of slopes by surface water must be prevented if workers may be endangered.
    - A ladder, scaffold, stairway or appropriate sloping of the ground or soil so that a worker can safely walk into or out of the excavation will be provide to ensure safe entry and exit.
    - For trenches that are more than 1.2 meters (BC) or 1.5 meters (AB) deep a safe point of entering and leaving, not more than 8 meters from the worker, must be provided.
    - If the excavation or trench is more than 1.2 meters (BC) or 1.5 meters (AB), the walls must be cut back so that cave-ins or sliding or rolling materials are not a hazard or supported as specified by a professional engineer (or otherwise acceptable by the regulation).
    - The sides of an excavation must be scaled and trimmed or otherwise stabilized to prevent slides of material or falls of rock that could endanger workers.

Installing a Physical Barrier

In a tunnel or in an excavation or trench that is more than 1.4 m deep (1.2 meter in Saskatchewan), and whose sides are sloped at an angle of 45° or more to the horizontal the walls of the tunnel, excavation or trench, and the roof of the tunnel (if applicable) must be supported by shoring and bracing that is installed as the tunnel, excavation, or trench is being excavated and extends at least 300 millimetres above the base of the cut-back. Westward will stabilize the soil in an excavation by shoring or cutting back, or a tunnel, underground shaft or open pit mine by shoring. Shoring must be installed and removed in a manner that protects workers from cave-ins and structural collapses and from being struck by shoring components. The shoring components must be securely connected together to prevent sliding, falling, kickouts or other possible failure and individual components of shoring are not subjected to loads that exceed the loads the components were

designed to bear. All personnel who install shoring, stringers or bracing must use a ladder and work down from the top of the trench, installing each brace in descending order. The reverse process is used to remove the shoring, stringers or bracing. Workers must not enter an excavation to remove shoring materials if ground conditions have deteriorated so as to make entry for shoring removal unsafe.

Shoring or manufactured or prefabricated support systems must be installed in firm contact with the faces of the excavation, and in a manner which ensures no loss of soil from behind or below the bottom of the shield or shoring while the excavation is open. Voids between the shoring and the excavation face must be backfilled or blocked. Shoring must be constructed of number 1 structural grade spruce lumber for the type of soil and the depth of the excavation or made of material of equivalent or greater strength.

Alternatively, in Alberta Westward may stabilize the soil in an excavation, tunnel, underground shaft, or open pit mine using an artificial soil stabilization technique, including freezing soil by artificial means or grouting. These processes must be designed by a professional engineer to control soil conditions and performed in accordance with the professional engineer's specifications. Natural freezing of the soil as an alternative or partial alternative to a temporary protective structure, or to stabilize the soil in an excavation, tunnel, or underground shaft is not acceptable.

Adjacent Structure Stability

Before excavating or trenching begins, an assessment of impact on adjacent properties and structures including trees, utility poles, rocks and similar objects must be performed. When an excavation trench may affect the stability of an adjacent structure, the structure must be supported by a temporary protective structure or removed.

When work is being performed in the vicinity of an overhead power line, Westward will ensure that the work is carried out in a manner that will not reduce the original support provided for any overhead power line pole, unless permission has previously been obtained from the utility company responsible for the overhead power line.

Contact with a Line

Where there is contact with or damage to an underground pipeline, cable or conduit work must be stopped immediately; the Westward supervisor will immediately notify the owner of the pipeline, cable or conduit that contact or damage has occurred and take steps to protect the health and safety of any worker who may be at risk until any unsafe condition resulting from the contact or damage

is repaired or corrected. Alternatively the One Call may be contacted if the owner is unknown or unavailable.

Program Review

This ground disturbance program must be reviewed on a regular basis and updated as necessary. The program will be reviewed when there are changes to regulations or company policy.

Ground Fault Protection

Ground-fault circuit interrupters (GFCI) - All 120 volt, single phase, 15 and 20 ampere Receptacle outlets on the job site, which are not part of the permanent wiring of the building or structure and which are in use by employees, must have approved ground fault circuit interrupters for personnel protection. Receptacles on a two wire, single phase portable or vehicle mounted generator rated not more than 5kw, where the circuit conductors of the generator frame and all other grounded surfaces, need not be protected with ground fault circuit interrupters.

Westward has established the following assured equipment grounding conductor program covering all cord sets, receptacles which are not part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees. This program will comply with the following minimum requirements:

- Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, must be visually inspected before each day's use for external defects, such as deformed or missing pins or insulation damage, and for indications of possible internal damage. Equipment found damaged or defective must not be used until repaired. Damaged or defective items must be tagged "DO NOT USE" and removed from service until repaired and tested.

- The following tests will be performed on all cord sets, receptacles which are not part of the permanent wiring of the building or structure, and cord and plug connected required to be grounded:
    - All equipment grounding conductors will be tested for continuity and be electrically continuous.
    - Each receptacle and attachment cap or plug will be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor must be connected to its proper terminal.

- All required tests will be performed:
    - Before first use;
    - Before equipment is returned to service following any repairs;
    - Before equipment is used after any incident which can be reasonably suspected to cause damage (for example, when the cord set has been run over; and
    - At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage will be tested at intervals not exceeding 6 months.

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- Westward will not make available or permit the use by employees on any equipment which has not met the above requirements.

- Tests performed as required will be recorded. This test record must identify each receptacle, cord set, and cord and plug connected equipment that passed the test and must indicate the last date it was tested or the interval for which it was tested.

Hydrogen Sulphide (H_2S)

When H_2S is present or has a potential presence, all OH&S regulations, as well as H_2S training procedures must be strictly adhered to.

Hydrogen Sulphide, commonly called H_2S (Sour Gas), is highly poisonous gas and is a killer in high concentration. H_2S can be found near sour wells, sewers, plant sites, sour tanks, and any well being drilled (unknown H_2S content). A properly maintained H_2S meter must be worn at any site where H_2S is known to exist or may potentially be encountered. If you do not know if you are going into a sour area be prepared...wear an H_2S meter and ensure contact is maintained on a regular basis with someone who can help in an emergency. Emergency contacts can include fellow workers in the area, and client operators, if these are not available ensure regular contact with the Westward office. If you are working alone make sure your contact is aware that you are in a sour area.

As required in Saskatchewan this written procedure for H_2S was developed in consultation with the committee.

The following is discussed in this procedure: exposure to H_2S, the conditions under which a worker will be required or permitted to work, including the frequency, quantity and duration of exposure to H_2S, and the steps that the employer will take to ensure that no worker's personal exposure exceeds the ceiling limit and 8 hour OEL.

Hydrogen Sulphide properties are:

Colour	-Colourless
Odor	-A smell similar to rotten eggs
Density	-Heavier than air (1.189)
Explosive	-Mixed with the right proportion of air of oxygen, H_2S is explosive (40%-46%)
Flammability	-H_2S will ignite at 260^0C and burn readily with a blue flame, producing Sulphur Dioxide, another unpleasant gas that will irritate the eyes and lungs.
Solubility	-H_2S can be dissolved in fluids. If the fluid's temperature increases or becomes agitated, H_2S will be released.
Boiling Point	-Is -60^0C, so we would likely find H_2S as a gas instead of a liquid.

Occupational Exposure Limit (OEL)

When the potential for worker exposure to H_2S is identified during the hazard assessment, Westward will ensure that a worker's exposure to the H_2S is kept as low as reasonably achievable. However, when the amount of H_2S in the environment is 10 ppm or less, the worker can function for eight (8) hours without significant side effects. This is called the Occupational Exposure Limit (OEL). Atmospheric testing results will be assessed before a worker is exposed.

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Ceiling Limit

The ceiling limit is for H_2S is 10 ppm. Workers are not to be exposed to a concentration over the ceiling limit at any time. When the amount of H_2S in the environment is 10 ppm or higher, an appropriate breathing apparatus must be worn if the work has to be done in that area.

The following are limits you should be aware of:

10 ppm	.001% Occupational Exposure Limit (OEL) for 8 hours
100 ppm	.01% will kill the sense of smell within 3 to 15 minutes
200 ppm	.02% loss of smell rapidly and will burn the eyes and throat
500 ppm	.05% loss of reasoning and balance; breathing will stop within 15 minutes or less
700 ppm	.07% unconscious very quickly, breathing will stop, and the result will be death if not rescued promptly
1,000 ppm	.1% unconsciousness immediately results; will have permanent brain damage or death, if not rescued promptly
10,000 ppm	1% may result in death at once, if not rescued promptly

When you encounter H_2S or suspect the presence of H_2S:

1. **EVACUATE**
   Get to a safe area immediately.
   Move upwind if release is downwind of you.
   Move crosswind if release is upwind of you.
   Move to higher ground if possible.

2. **ALARM**
   Call for help "Man Down", sound bell, horn, whistle or call for help by radio.

3. **ASSESS**
   Do a head count. Consider other hazards.

4. **PROTECT**
   Put on breathing apparatus before attempting rescue.

5. **RESCUE**
   Remove victim to a safe area.

6. **REVIVE**
   Apply CPR if necessary.

7. **MEDICAL AID**
   Arrange transport of casualty to medical aid. Provide information to Emergency Medical Services (EMS).

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The following precautions should be strictly observed when H_2S is known to be or suspected of being present as part of the normal working environment:

- Maximum care should be taken to prevent the escape of Hydrogen Sulphide into air surrounding any work area.
- Adequate ventilation should be provided.
- Before entering any area suspected of containing Hydrogen Sulphide, determine whether or not the gas is present, ongoing monitoring is required. All workers are required to wear a personal monitor.
- Never enter an area suspected of Hydrogen Sulphide without proper protective breathing apparatus and employing the "Buddy System".

Where it is not reasonably practicable to reduce a worker's personal exposure to Hydrogen Sulphide below 10ppm over an 8 hour workday Westward will provide an approved respiratory protective device. All workers will be required to use the respiratory protection. All employees, who are to work in areas where Hydrogen Sulphide gas may be encountered, must review the comprehensive instructions as to the dangers of the gas and how to properly use the breathing apparatus.

Westward requires that all personnel working in H_2S or H_2S potential areas have a current H_2S Alive (or equivalent) training course (renewed every **three years**).

Ladders

The purpose of this Ladder Policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for Ladders.

Following these general safe practices will help all Westward employees perform their work safely while working on, or around a ladder. Whenever possible a ladder must not be used to enter or leave an elevated or sub-level work area if the area has another safe and recognizable way to enter or leave it.

All employees, workers, contractors, and subcontractors must have a safe means of entrance to and exit from a place of employment and all worksites and work related areas in or on a place of employment. All doors in a hazardous work area must open away from the hazard and must not be blocked by an obstruction.

Training
All Westward shop and field employees receive basic ladder training at orientation and as needed after that.

Ladder Standards
All ladders used at Westward meet the CSA and ANSI Standards. Dependent on the type of ladder used the following standards have been met (either by purchasing or construction controls):

- CSA Standard CAN3-Z11-M81,
- ANSI Standard A14.1-2000,
- ANSI Standard A14.2-2000, or
- ANSI Standard A14.5-2000.

The following must be followed:

- All single portable ladder and sections of an extension ladder must not exceed nine meters in length.
- A Wooden ladder or stepladder must not be painted with any substance other than a transparent coating and no ladder is made by fastening cleats across a single rail or post.
- The portable ladder must be equipped with non-slip feet and is secured against accidental movement during use.
- A metal or wire bound portable ladder must not be used where the ladder or worker handling or using the ladder any come into contact with an exposed energized electrical conductor.
- A portable ladder must extend at least one meter above any platform, roof or other landing to which the ladder is used as a means of access and if necessary, be secured to ensure stability during use.

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- A ladder must be placed on a firm and level base and be positioned so that the horizontal distance from the base to vertical plane of support is approximately ¼ of the ladder length.
- A stepladder must not be more than six metres high when set for use, and must have legs that are securely held in position by means of metal races or an equivalent rigid support and when in use, and must have a front section slope at an angle of one horizontal to six vertical.
- An extension ladder must be equipped with locks that securely hold the sections of the ladder in the extended position, where a section of an extension ladder is extended, the section that is extended overlaps another section for at least one metre, an extension ladder consisting of two sections does not exceed 14.6 metres in length and an extension ladder consisting of more than two sections does not exceed 20 metres in length.
- A fixed ladder means a ladder that is fixed to a structure in a vertical position or at an angle that is between vertical and 25 degrees to the vertical. All fixed ladders must meet legislative standards.
- A manufactured portable ladder must be marked for the grade of material used to construct the ladder and the use for which the ladder is constructed.

Ladder Inspection

All ladders at Westward are inspected for defects before the commencement of any work requiring their use. The following items must be inspected:

- The rungs, cleats, or steps in good condition.
- The side rails intact without any cracks, bends, or breaks.
- The side rails and steps free of oil or grease.
- Rungs, cleats, or steps fit snugly into the side rails.
- The moveable parts operate freely without binding or excessive play.
- The ladder is free of corrosion.
- The ladder's hardware and fittings are secure and undamaged.
- The ropes on extension ladders are intact without fraying or excessive wear.
- Untreated wooden ladders should be stored in dry areas to prevent moisture or water absorption.
- Ladders constructed from fiberglass should be cleaned and sprayed lightly with a clear or pigmented lacquer or paste wax once every three (3) months.
- Do not attempt to straighten, or allow to remain in use, a bent or bowed ladder.

All defective and damaged ladders must be discarded or repaired according to the manufactures specifications. In the meantime, those defective ladders must be tagged as “Defective and Do Not Use” and removed from the work area.

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Painting Ladders
Westward does not permit wooden ladders to be painted. Paint and other coatings can prevent a person from seeing the condition of the wood of a wooden ladder. Only transparent, nonconductive finishes such as varnish, shellac, or a clear preservative should be used. A minimum amount of paint may be used for placing identifying information on a ladder. If this is done, the marking(s) should only appear on one face of the side rails.

Electrical Work
During electrical work a non-conductive ladder should be used. Metal ladders should never be used for electrical work and they should always be kept clear of overhead power lines and electrical circuits when used for other projects. The use of metal ladders or metal reinforced rails on a ladder should be avoided when there is a possibility that they will be used around electricity. Wooden ladders with metal reinforcing rods shall not be used for electrical work, due to the danger of inadvertent electrical contact.

Transporting Ladders
When transported on a vehicle, ladders should be properly supported and secured using proper “tie down” straps. Avoid using rubber “bungee cords” unless the travel distance is short. Check your load periodically.

Portable Ladders
Portable ladders are available in several models, the most common of which are stepladders, single ladders, and extension ladders. Ladders are made out of three main types of materials - aluminum, wood, or fiberglass. Each model and/or type of material has certain advantages and disadvantages. Selection of the correct ladder for the type of work activity is important to ladder safety.

A Westward worker must ensure that a portable ladder is secured against movement and placed on a base that is stable. The base of an inclined portable ladder must not be further from the base of the wall or structure than 1/4 of the height to where the ladder contacts the wall or structure (use the 4 to 1 rule (1 foot from the wall for each 4 feet of ladder length). Also, a Westward worker must ensure that the side rails of a portable ladder extend at least 1 metre above a platform, landing, or parapet if the ladder is used as a means of access to the platform, landing or parapet. A worker must not perform work from either of the top two rungs, steps or cleats of a portable ladder unless the manufacturer's specifications allow the worker to do so.

Accidents involving portable ladders are common in the workplace because this tool is often abused and/or used improperly. Please ensure to:

- Select a ladder with adequate length and load limits.

- Use the ladder for its intended purpose.
- Set up the ladder on a firm, solid surface.
- Secure or barricading the ladder to protect it from being bumped when you have to work in doorways, passageways, or driveways.
- Keep the area around the top and bottom of the ladder clear.
- Fully open the stepladder with the spreaders locked to keep the ladder stable.
- Set up your straight ladder so the rails are supported equally at the top.
- Use your extension ladder so the upper section overlaps the lower section, and the overlap is on the climbing side with the rungs locked in place.
- Face the ladder when ascending or descending.
- Use both hands to grip the side rails whenever possible. Always use at least one hand to grasp the ladder when climbing.
- Have only one person on the ladder at a time.
- Wear a tool belt to help you manage tools while you're working on a ladder.
- Store the ladder in a secure designated area after use.

If work cannot be done from a ladder without hazard to a worker, a work platform will be provided. A worker must not carry up or down a ladder any heavy or bulky objects that may make the ascent or descent unsafe.

BEWARE…

The following are Common Causes of Ladder Accidents:

- Over-reaching from ladders, rather than moving them. Work within the side rails. If your belt buckle goes past the side rail, you are leaning too far. Descend and move the ladder as needed to stay close to your work.
- Standing ladders on boxes, etc., to gain additional height.
- Too much haste in climbing or descending.
- Climbing one-handed while carrying something in the other hand.
- Standing at the very top of a short ladder, rather than getting one long enough for the job.
- Hanging tools from ladder rungs, or leaving tools on the top of the stepladder.
- Throwing tools to a fellow worker on a ladder.
- Placing the ladder at an improper angle.
- Using metal ladders in locations where contact with electric wires is possible.
- Using worn or damaged ladders.
- Failure to secure (tie) the ladder in place.
- Using a ladder as a brace, skid, lever, gangway, platform, scaffold, plank, or material hoist.
- Tying ladders together to make them longer.

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- Placing a ladder on boxes or blocks to make it taller.
- Setting up a ladder on a scaffold to gain extra height.
- Setting up a ladder on a slippery or icy surface.

Lifting and Handling Loads

Safe lifting is key to ensure the protection of the health and safety of every employee. Every feasible effort shall be made to provide a work environment that allows workers to maintain a healthy back. Westward recognizes this and expects all workers to follow these procedures. This shall be accomplished by implementing acceptable engineering controls and work practice controls, where applicable.

Training
All Westward workers who may be exposed to the possibility of musculoskeletal injury (MSI) receive training in this policy including the following specific measures to eliminate or reduce the possibility of MSI:

(a) Identification of factors that could lead to a musculoskeletal injury,
(b) The early signs and symptoms of musculoskeletal injury and their potential health effects, and
(c) Preventive measures including, where applicable:

- Safe methods of manually lifting, adapting, holding, or carrying of loads.
- The use of altered work procedures,
- The use of mechanical aids, and
- Personal protective equipment.

Following these general safe practices will help all employees protect their back while lifting:

- A hazard assessment must be performed before a worker manually lifts, lowers, pushes, pulls, carries, handles or transports a load that could injure the worker.
- Wherever possible, pack shipments so all containers are less than 20 kg.
- Size up or test a load before attempting to lift to see if you can handle it. Never attempt to lift an oversized or awkward load alone.
- Reduce oversized or awkward loads by splitting into smaller loads.
- Use suitable mechanical equipment (dolly, crane, etc) to reduce the load.
- Make sure the route or path that you intend to take is clear.
- Use extreme caution when carrying items across uneven terrain, or up or down stairs.

Keep your back straight. Bend at your knees as far as you can and still be able to return to an upright position. Initiate the lift and come to an upright position with your leg and buttock muscles. Tighten your abdominal muscles to help brace your back as you lift. Keep the object close to your body. Keep your head higher than your shoulders. Grip with your whole hand – not just your fingers.

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If an injury occurs

If a worker reports what the worker believes to be work related symptoms of a musculoskeletal injury, Westward must promptly review the activities of that worker, and of other workers doing similar tasks, to identify work-related causes of the symptoms, if any, and take corrective measures to avoid further injuries if the causes of the symptoms are work related.

Locking Out

The purpose of the Locking Out policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with the following procedures for Locking Out.

If a lockout is not performed, uncontrolled energies could cause:

- Electrocution (contact with live circuits);
- Cuts, bruises, crushing, amputations, death, resulting from: entanglement with belts, chains, conveyors, rollers, shafts, impellers;
- Entrapment by bulk materials from bins, silos or hoppers;
- Drowning in liquids in vats or tanks;
- Burns (contact with hot parts, materials, or equipment such as furnaces);
- Fires and explosions;
- Chemical exposures (gases or liquids released from pipelines).

If a power sources is inadvertently turned on, or valves opened mistakenly before the work is completed, the result could be serious injuries and fatalities. Therefore, it is important not only to ensure that all energies are properly locked out, but also that they remain locked out until the work is completed.

Training and Competency

All employees who may be required to work in or around any lockout procedure must take in-house training to become familiar with the Westward Lockout policy. All Westward workers must have the proper combination of experience, knowledge, and education to perform the work required.

All field and shop employees are required to participate in Locking Out Awareness training during orientation and as needed after that.

Workers must be competent when working around any equipment that must be locked out. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file and this is verified prior to each worker being sent to the field to complete a task that may involve using our lockout procedures.

Standards for Locks and Tags

Westward uses locks and tags that have unique marks or tags with the following information on it:

- The name of the worker (or an identifying picture) that has locked out the machinery, equipment, or powered mobile equipment. Note: that each

individual will put their own individual tag onto the machinery, equipment, or powered mobile equipment.
- The date.
- Reason for locking out the equipment.
- Estimated time of completion.

All workers who have installed a lock or tag must be readily available during the time the equipment is locked out. Combination locks must not be used for lockout.

Designated Person
Each Lockout process will have a designated person assigned who coordinates and controls the ultimate safety of the process.

When locking equipment/machinery out the worker who is performing the work (original key) and a designated person (duplicate key) are the only people who have access to the keys. The Westward designated person is the only person permitted to use a duplicate key; they must record the following in the logbook if the key is used:
- The use of the duplicate key;
- The reason for its use;
- The date of its use;
- Sign the logbook each time that the duplicate key is used.

The duplicate key is accessible only to the designated person and the log book is kept to record the use of the duplicate key and the reasons for that use. Log books will be reviewed by upper management periodically.

During a lockout process where there is no method to use a lock and key Westward will designate a person to coordinate and control the lockout process. No person shall deactivate a lock-out process that does not use a lock and key except the designated person.

When lockout of energy isolating devices is required, the devices must be secured in the safe position using locks in accordance with procedures that are made available to all workers who are required to work on the machinery or equipment.

Written Lock Out Process
A Hazard Assessment and written lockout processes have been developed for each machine that is required to be locked out. Each worker who is required to work on locked out equipment will be issued a lock that is operable only by that worker's key and a duplicate key.

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This lock out process is performed, documented, and taught prior to any new machine being brought into service.

A hazard assessment must be completed prior work starting that addresses all hazards and protects personnel directly related to the lockout procedure and those in the vicinity of the work. All site-specific procedures must be documented.

The manufacturer's specifications will be reviewed, if practical, when developing and implementing procedures and controls for a work processes.

Before servicing, repairing, testing or adjusting of machinery, equipment, or powered mobile equipment the Westward worker must ensure that the machinery, equipment, or powered mobile equipment has come to a complete stop and must follow this written lockout process, as well as any site specific process.

If machinery or equipment is shut down for maintenance, no work may be done until all parts and attachments have been secured against inadvertent movement. If the work will expose workers to energy sources, the hazard must be effectively controlled and the energy isolating devices locked out.

Notification of Isolation
The machinery, equipment, or powered mobile equipment must be locked or tagged to show that it is being worked on (see above for lock and tag standards).

Verification of Isolation
Before a Westward worker undertakes the maintenance, repair, test or adjustment of a machine an employer or contractor shall ensure that the machine is locked out and remains locked out during that activity. Locking Out the machinery (or power tool) will ensure that the energy source has been isolated and any residual energy in the power tool has been dissipated and the energy source remains isolated during the activity.

Work is not to be performed until the equipment is tested to ensure that it is inoperative and the worker is assured that it is inoperative and effectively isolated.

Removing Lock or Tag and Returning Equipment to Service
A Westward employee must not remove a lock from a locked out piece of equipment unless the person is the worker who installed it and the worker ensures that no workers will be in danger if it is removed. If the Westward worker who installed a lock is not available a shift supervisor/designated person must remove the lock. The designated person must make every reasonable effort to contact the worker who installed the lock to determine the reason that the workers key is not available and that it is safe to remove the lock and activate the machine. The

worker must be notified at the start of his or her next shift if their personal lock(s) have been removed since the worker's previous shift. No person shall remove a lock-out device except the worker who installed the lock-out device or the designated person.

Securing devices must not be removed until each involved worker is accounted for, any personal locks placed by workers are removed, and procedures are implemented to verify that no worker is in danger before a worker removes the securing devices and the machinery, equipment, powered mobile equipment, piping, pipeline or process system is returned to operation.

Shift/Personnel Change
If a lockout process will be carried over to the next shift or set of workers an orderly transfer of control of locked out energy isolating devices between outgoing and incoming workers must occur.

Running Equipment During Servicing
Some equipment must stay running to lubricate, adjust, repair, or clean; the procedure in the manufacturer's specifications must be adhered to. If there are no manufacturer's guidelines, a task specific procedure must be developed and implemented to ensure that the activity is safe. If it is not practicable to shut down machinery or equipment for maintenance, only the parts which are vital to the process may remain energized and the work must be performed by workers who are qualified to do the work and have been authorized by Westward to do the work.

Group Procedure Lockout
If there is more than one worker working on the machinery, equipment or powered mobile equipment to be locked out, then the group lockout procedure must be followed. All employees (that are involved in the lockout) must put their individual lock or tag on the equipment. The machinery, equipment or powered mobile equipment must not be turned on until the last lock is removed from the machinery, equipment or powered mobile equipment. After a lock-out device has been installed or a lock-out process has been initiated, the worker who installed the first lock or initiated the process shall check the machine to ensure that the machine is inoperative.

Workers may lock out a secondary key securing system if 2 qualified workers lock out the primary key securing system and place their keys in the secondary system. On completion of his or her work, each worker must remove his or her personal lock from the key securing system.

The written group lockout procedure must be conspicuously posted at the place where the system is in use.

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When Locks are NOT Required
The application of a lock is not required if the energy isolating device is under the exclusive and immediate control of the worker at all times while working on the machinery or equipment, or a tool, machine or piece of equipment which receives power through a readily disconnected supply, such as an electrical cord or quick release air or hydraulic line, is disconnected from its power supply and its connection point is kept under the immediate control of the worker at all times while work is being done.

Emergency Procedure
In an emergency or if the worker who installed the lock is not available, the shift supervisor/designated person may remove the lock only after verifying that no worker will be in danger due to the removal.

Isolating Pipes and Pipelines
When there are harmful substances under pressure in a piping system the two methods to isolate that system is by blanking or blinding, or a double block and bleed isolation system. An operable bleed-off between the two seals must also be utilized to release the build-up pressure and render the equipment safe.

Pigging
A general definition of pigging is the propulsion through a pipe of a mobile plug (pig) that can execute certain activities inside the pipe. Examples and reasons for pigging include: clean a pipe mechanically (pig with brushes), to check a channel (pig with video camera), or to inspect the pipe and welds (pig with eddy current sensors or ultrasonic technology).

When performing pigging and testing:

- Only use properly designed pig senders, receivers and test heads.
- Position warning signs on each end of line to identify the “Critical” area.
- Check that adequate test heads are being used and properly installed.
- Fabricate and install test heads, temporary pig launchers and receivers, if required.
- Ensure that a proper pig is being used.
- Position air compressor.
- Ensure that the pig catcher on a pipeline is isolated from the pipeline and depressurized before the pig is removed.
- Ensure no workers are at the end of the pipe or in the immediate vicinity of the pig catcher if the pipe or pig catcher is under pressure during pigging and testing.
- Ensure only personnel involved with operations are on site.
- Adhere to P.P.E. Policy including Hearing Protection

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When around pigging:
When workers are not directly concerned with the pigging and testing operation they must not be in the immediate area of exposed piping during the operation.

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Office Safety

Injuries and incidents in the office are just as painful and costly as those in the field. The office is to be kept safe and tidy. Know the escape route to take in a fire and contact the fire department for assistance by dialling 911 after you have evacuated the premise.

Working Alone or at Night

- Ensure the door is locked at all times.
- Do not let anybody in, unless you know him or her.
- Prior to leaving, look outside for suspicious looking people.

Housekeeping

All floors must be kept clean and free from materials or equipment that could cause workers to slip or trip. This must be maintained daily as part of the job you are working on.

Filing and Storage Cabinets

To prevent cabinets from tipping over:

- Bolt cabinets together side by side or to support walls.
- Do not overload the top shelves when using filing and storage cabinets.
- Open drawers one at a time so as not to unbalance the cabinet.
- Close the drawers when they are not being used.
- Use the handles for closing the drawers to prevent fingers from being pinched.

Paper Cutters and Shredders

After using the paper cutters, close the blade. Be very careful when using the paper shredder not to catch jewellery, ties, clothing or long hair in the blades.

Wastepaper Baskets

Never use a wastepaper basket as an ashtray as this could easily start a fire. When disposing of glass or sharp-edged cans in the wastepaper basket, place them first in a paper bag and mark the contents clearly.

Electrical Cords

- To avoid a fire hazard, ensure that all electrical cords are in good condition and are not overloaded, have any worn cords repaired or replaced immediately.
- To avoid a tripping hazard, do not run any electrical or telephone cords across aisles or walkways. Ensure cords do not create tripping hazards around desks.

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- Never pull a cord from the wall socket by yanking on the cord; pull the plug instead.

Floors, Aisles and Stairs

There are many possible ways to slip and trip in an office. To prevent tripping and slipping:

- Keep floors, aisles and stairs free of debris and storage boxes. Pick up debris.
- Do not obstruct your view while walking around by reading or carrying oversized loads.
- Wipe up spills immediately.
- Watch for slippery surfaces.
- Report and correct unsafe conditions.
- Hold the handrail when using the stairs.

Ladders

When using a ladder:

- If the ladder is a stepladder, ensure that it is fully spread open on a level surface before beginning to climb.
- Do not stand on either of the top two steps of the ladder.
- Do not reach to the side when on the ladder; instead, get down and move the ladder.
- Never paint a wooden ladder.

Flammable Materials

- Never use flammable cleaning fluids, such as gasoline, varsol or naphtha in an office.
- Keep any flammable materials in approved containers that are labelled.
- Never leave the containers uncapped.

Fans

- Use only fans with wire mesh safety guards that completely cover the fan blades.
- Never remove the guards.

Improper Storage of Heavy Items

Large stacks of materials and/or heavy articles can pose a great safety risk to employees if they fall or are knocked over. Heavy items should always be stored close to the floor, and care should be taken never to exceed the safe load capacity of shelving or storage units.

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Running
Avoid running in the office.

Space Heaters
Portable space heaters can pose a major fire hazard if used improperly. Space heaters in the workplace should always be approved for use by the CSA, never placed near combustible materials, and have a tip-over switch to ensure they will turn off automatically if knocked over. Space heaters should also never be used with an extension cord.

- Only plug one space heater in each circuit to avoid blowing a fuse.
- Turn off space heaters before leaving, even if you will be back in a short while.

Smoking

- All offices are non-smoking areas.
- Smoking is only permitted outside, away from the door.

Fire Precautions

- Ensure that you know that the fire extinguisher covers all types of fires (ABC) and is kept in the kitchen.
- Ensure that the extinguisher is properly maintained.

Poisonous Gas Practice

All personnel will be supplied a personal monitor to be worn at every field location. The monitors must be clipped to a top pocket on each workers coveralls (within the breathing zone); the sensors must be uninhibited.

It is the responsibility of each worker to ensure the batteries are charged and ready to go the next workday. A spare set of batteries should be kept charged and located in your vehicle.

Do NOT assume that since you cannot smell or see a gas that it is not there. A full hazard assessment completed prior the beginning of the job should list (and all workers be informed) of any potential gas or chemical that may be present. All potential emergencies should be defined.

In the event that your monitor is showing readings greater than the 8 hour OEL you must immediately evacuate upwind of the area. If a rescue is needed, only those trained in rescue are allowed to re-enter the area; and then only when properly protected from the hazard with SCBA.

Overcome with any Known or Unknown Gas
If a worker is overcome with any Known or Unknown Gas, you must not go and rescue him or her without protecting yourself first by donning a breathing apparatus:

1. Get out of the Known or Unknown Gas area.
2. Call out or sound alarm.
3. Call for HELP.
4. Put on breathing apparatus, if trained to do so.
5. Rescue victim; move them to fresh clean air.
6. Get air into their lungs by use of mouth-to-mouth.
7. Treat for shock, keep them warm and quiet. DO NOT let them walk around or go back to work.
8. Take them to the nearest hospital.

Maintenance of Monitor
Monitors will be calibrated at an accredited facility every 6 months. Bump testing will be performed prior to each job; records of each bump test will be kept in the box with each monitor.

Any required maintenance will be performed before the monitor is worn.

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Emergency Respiratory Equipment (See Respiratory Program for more info.)
All Westward workers are trained in the correct use, care, limitations and assigned maintenance of Self Contained Breathing Apparatus (SCBA) and are regularly fit tested. Westward provides a professionally maintained SCBA at every location in case of emergencies. This equipment must be located in a readily accessible location at all times.

Respiratory protective equipment that is not used routinely but is kept for emergency use is inspected at least once every calendar month by a competent worker to ensure it is in satisfactory working condition.

All Westward workers have been informed of this policy. Any disregard to this policy will result in disciplinary action.

Powered Mobile Equipment

The purpose of this Powered Mobile Equipment policy is to protect employees and contractors from injury.

It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for the Powered Mobile Equipment Protocol. Powered mobile equipment includes forklifts, pile driving equipment, all-terrain vehicles, ride-on lawn mowers, tank trucks, vehicles, farm tractors, heavy equipment, etc.

Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower bucket, and/or set the parking brake.

Training
All Westward workers who operate powered mobile equipment must be trained. The training will occur before the employee is expected to drive the equipment. Only competent workers are required or permitted to operate powered mobile equipment; only then will they be authorized by Westward to operate that piece of equipment. Competency is verified by:

- Completed training program,
- Observation by a competent operator, and
- Knowledge review of equipment operating instructions.

Inspection and Maintenance
Before motorized or manual materials handling equipment is used for the first time in a workplace, instructions (in writing) will be developed on the inspection, testing, and maintenance of that materials handling equipment.

The employees of Westward are required to complete a visual inspection of the equipment and the surrounding area before operating any powered mobile equipment. The checklist must be used for pre-use inspections. The inspection ensures that the equipment is in a safe operating condition and that no worker, including the operator is endangered when the equipment is started up. A competent worker (on the specified equipment) must also perform an inspection as necessary to ensure that it is capable of safe operation. The inspection includes walking around the powered mobile equipment and ensuring that it is in good working order. All defects or conditions affecting the safe operation of the equipment must be reported to your supervisor immediately. The supervisor will determine if it is safe to use or if it must be repaired before using. As soon as is

reasonably practicable the defect must be repaired or the unsafe condition is corrected.

The equipment must be maintained according to the manufacturer's instructions.

A record of the inspections and maintenance carried out on all equipment is located in or on all equipment; this assures it is readily available to any worker who is operating the equipment (this must be kept for a period of at least 1 year). The record must include equipment identification, date, and all safety related observations.

Refuelling

No Westward workers may smoke within 7.5 metres of a vehicle or powered mobile equipment while it is being refuelled. If a source of ignition is within 7.5 metres do not refuel and dispensing flammable fuels into the fuel tank while its engine is running is prohibited. Do not go back into your vehicle when refuelling, static may be created that could cause an explosion (if you need to go enter your vehicle ground yourself by touching metal with your bare hand before handling the pump or Jerry can again). Be alert when refuelling.

Where a unit of powered mobile equipment is equipped with an enclosed cab, Westward will ensure that a fuel tank located in the enclosed cab has a filler spout and vents that extend to the outside of the cab.

Rollover Protective Structures (ROPS)

The following types of powered mobile equipment (weighing 700 kilograms or more) have rollover protective structures:

- tracked (crawler) or wheeled bulldozers, loaders, tractors or skidders, other than those operating with side booms;
- back hoes with a limited horizontal swing of 180 degrees;
- motor graders;
- self-propelled wheeled scrapers;
- industrial, agricultural, and horticultural tractors, including ride-on lawnmowers;
- wheeled trenchers.

For other powered mobile equipment where rollover is identified as a potential hazard, Westward will either equip the powered mobile equipment with a rollover protective structure that is either supplied by the manufacturer or certified by a professional engineer as being suited to that equipment, or institute safe work procedures that eliminate the possibility of rollover.

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All powered mobile equipment fitted with ROPS has seat belts or restraining devices for the operator and passengers; all workers must use the seat belts or restraining devices at all times.

General Provisions
The following controls are addressed, where applicable:

Engineering

- Where there is a danger to the operator of a unit of powered mobile equipment or any other worker who is required or permitted to be in or on a unit of powered mobile equipment from a falling object or projectile, the powered mobile equipment will be equipped with a suitable and adequate cab, screen or guard.
- Every forklift is equipped with a seat belt for the operator if the forklift is equipped with a seat.
- Every forklift is provided with a durable and clearly legible load rating chart that is readily available to the operator.

Administrative

- The Westward operator must maintain full control of the equipment at all times.
- The powered mobile equipment must be kept free of objects that could interfere with the operation or create hazards. Such hazards could be objects leaning on, or under the powered mobile equipment that are not noticed before operating the machine.
- Where a worker may be endangered by the swinging movement of a load or a part of a unit of powered mobile equipment, Westward workers are not required or permitted to remain within range of the swinging load or part.
- Operators must not leave the controls of the equipment unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. Where applicable, remove the key, lock the doors, chock the wheel, park on level ground, lower bucket, and/or set the parking brake. Elevated parts must be lowered to the ground.

Personal Protective Equipment (Seat Belts and Helmets)

- The Westward operator must use seat belts or other restraining device required. All passengers must also use the seat belts and other safety equipment.
- No worker may be transported on a vehicle or a unit of powered mobile equipment unless the worker is seated and secured by a seat belt or other restraining device that is designed to prevent the worker from being thrown from the vehicle or equipment while the vehicle or equipment is in motion.

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- No worker may be transported on the top of a load that is being moved by a vehicle or a unit of powered mobile equipment.
- Workers are provided with and required to use approved protective headgear and approved eye or face protectors if the all-terrain vehicle, snowmobile or towed conveyance does not have an enclosed cab.

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Rigging

The purpose of the rigging policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for rigging.

Rigging is defined as any sling, chain, rope, or associated fitting used to lift or pull items by any mechanical means.

Training
All Westward employees receive training at orientation and refresher training every year thereafter. Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals authorized by the Board for controlling hoisting operations.

Workers must be competent when working with rigging. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. At Westward all rigging is assembled, used, maintained, and dismantled under the supervision of a competent worker and in accordance with manufacturers' specifications.

All Westward workers who are required or permitted to assemble, use, maintain or dismantle rigging are trained in these safe rigging practices.

Standards
Westward ensures that all wire rope, alloy steel chain, synthetic fibre rope, metal mesh slings, and synthetic fibre slings meet the requirements of ASME Standard B30.9-2006, Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings (or current version). Below-the-hook lifting devices, other than slings, meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).

Inspections and Rejection Criteria
Contractors and employees of Westward are required to thoroughly visually inspect the rigging before each shift or use to ensure that it is functional and safe. The inspection must be performed by a competent worker. A competent worker means adequately qualified, suitably trained, and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. The following items are inspected:

- Synthetic web slings will be inspected for cuts, burns, excessive wear, and broken threads.

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- Synthetic rope slings will be inspected for any distortion, cuts, broken fibers or wear.
- Chains will be inspected for wear, cracks, nicks, or discoloration.
- Steel wire rope slings will be inspected for kinks, broken wires, protruding core, crushing, corrosion, or other damage.
- A sling with a knot must not be used.
- Towrope slings will be inspected for wear, broken fibers threads, burns, knots or distortion.
- All fittings must be used for the proper type of application and must be inspected for any sign of wear, distortion, cracks, missing or unacceptable replacement parts, missing or broken safety latches on hooks, and bent or worn pins or bolts. Any hook must have a safety latch, mousing, or shackle if the hook could cause injury if it is dislodged while in use.
- Any hook must have a safety latch, mousing, or shackle if the hook could cause injury if it is dislodged while in use. A hook is considered defective if:
    - the throat opening, measured at the narrowest point, has increased by more than 10% of the original opening,
    - the hook has twisted more than 10° from the original plane of the hook,
    - the hook has lost 10% or more of its cross-sectional area,
    - the hook is cracked or otherwise defective, or
    - wear or damage exceeds any criteria specified by the manufacturer.

If the inspection indicates that the rigging is unsafe or damaged then it must be rejected and be permanently removed from service.

Rigging Identification and Working Load Limit

Rigging fittings must be marked with the manufacturer's identification, product identifier and the working load limit (WLL) or sufficient information to readily determine the WLL. The WLL of any existing fittings not identified must be removed from service.

An alloy steel chain sling must be permanently identified with:

- the size,
- the manufacturer's grade and the WLL,
- the length and number of legs, and
- the name or mark of the sling manufacturer.

Synthetic fibre web slings must be permanently identified with:

- the manufacturer's name or mark,
- the manufacturer's code or stock number,
- the working load limits for the types of hitches permitted, and

- the type of synthetic web material.

A wire rope sling with a swaged or poured socket or a pressed fitting will be inspected to ensure it is permanently identified with:

- its working load limit,
- the angle upon which the WLL is based, and
- the name or mark of the sling manufacturer.

Rigging Breaking Strength and Load Rating

No load may be imposed on any rigging that is in excess of 10% of the breaking strength of the weakest part of the rigging (if the rigging is being used to raise and lower workers) and 20% of the breaking strength of the weakest part of the rigging in all other cases.

A sling used to hoist a load and the slings fittings and attachments must remain in compliance with legislated standards, and capable of supporting at least 10 times the load to which the slings fittings, and attachments may be subjected where they are used to support a worker, and at least five times the maximum load to which they may be subjected in any other case. All slings at Westward are clearly labelled to indicate the slings maximum. The load capacities of the slings are readily available to workers.

No shackle may ever be subjected to a load greater than the maximum load indicated on the shackle, and all shackle pins must be installed to prevent accidental withdrawal, and a bolt may never be used in the place of a properly fitted shackle pin.

The maximum load of any hook must be clearly labelled in a location where a worker using the hook can easily see the rating.

The determination of the working load limit (WLL) of a sling assembly must ensure that the WLL of any individual component of the assembly is not exceeded. Rigging must not be subjected to loads more than the maximum load rating. If the load rating is not labelled on the rigging information must be kept with all rigging and made readily available to workers that states the maximum load rating of that piece of rigging and its associated parts. Remember that rigging is only as strong as its weakest component.

Tag line and Hoisting Line Requirements and Procedures

Where a Westward worker may be endangered by the rotation or motion of a load during hoisting one or more tag lines must be used to control the rotation or motion of the load. The tag lines must be of sufficient length to protect the workers from

any overhead hazard. Tag lines are never to be removed from the load until the load is securely landed.

General Guidelines

- Loads to be unhooked by a worker must be safely landed and supported before the rigging is detached.
- A sling must be stored to prevent damage when not in use.
- When a sling is applied to a sharp edge of a load, the edge or the sling must be protected to prevent damage to the sling.

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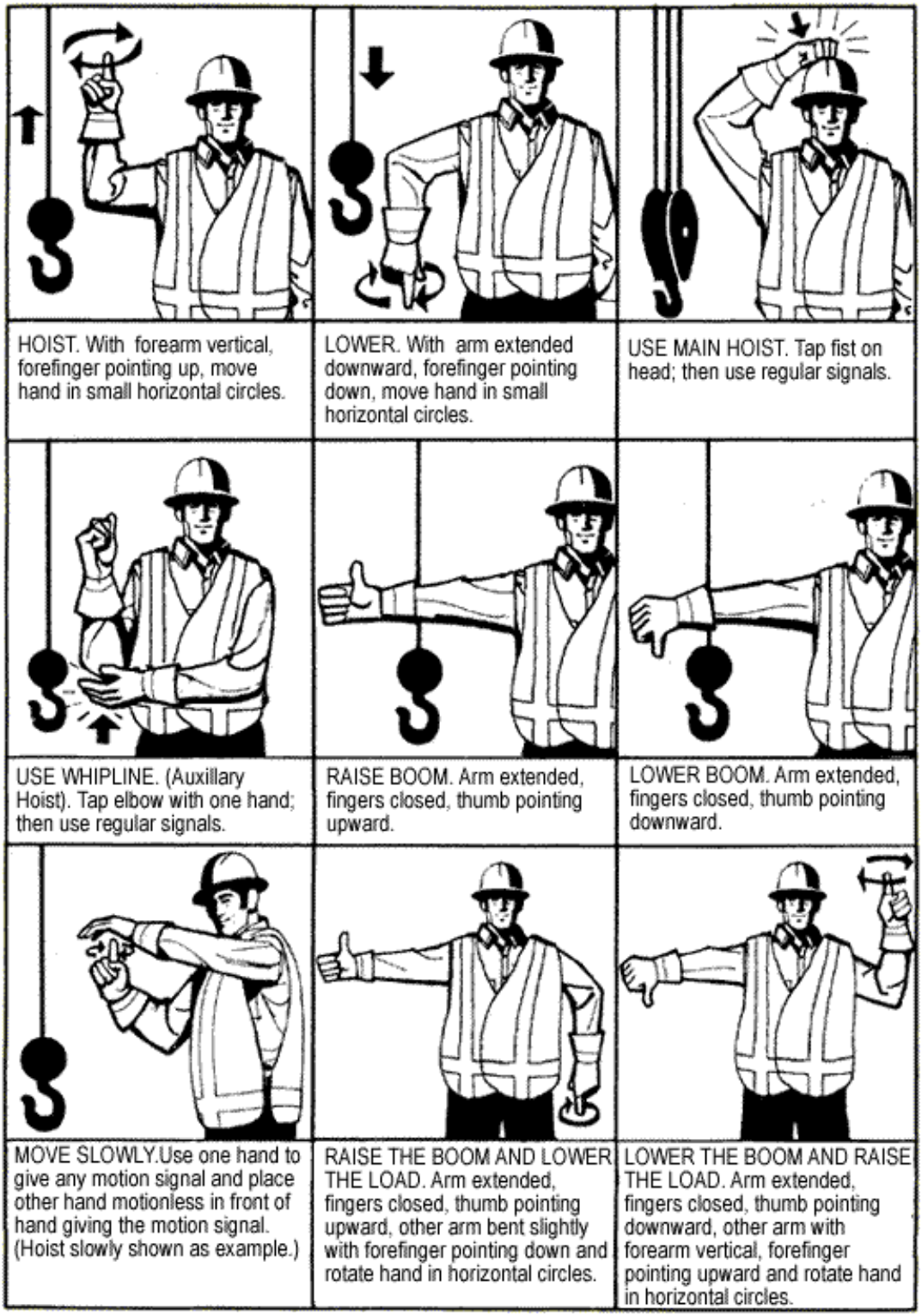
Qualified Signalers are required to use the following hand signals:



HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circles.	LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circles.	USE MAIN HOIST. Tap fist on head; then use regular signals.
USE WHIPLINE. (Auxillary Hoist). Tap elbow with one hand; then use regular signals.	RAISE BOOM. Arm extended, fingers closed, thumb pointing upward.	LOWER BOOM. Arm extended, fingers closed, thumb pointing downward.
MOVE SLOWLY.Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)	RAISE THE BOOM AND LOWER THE LOAD. Arm extended, fingers closed, thumb pointing upward, other arm bent slightly with forefinger pointing down and rotate hand in horizontal circles.	LOWER THE BOOM AND RAISE THE LOAD. Arm extended, fingers closed, thumb pointing downward, other arm with forearm vertical, forefinger pointing upward and rotate hand in horizontal circles.

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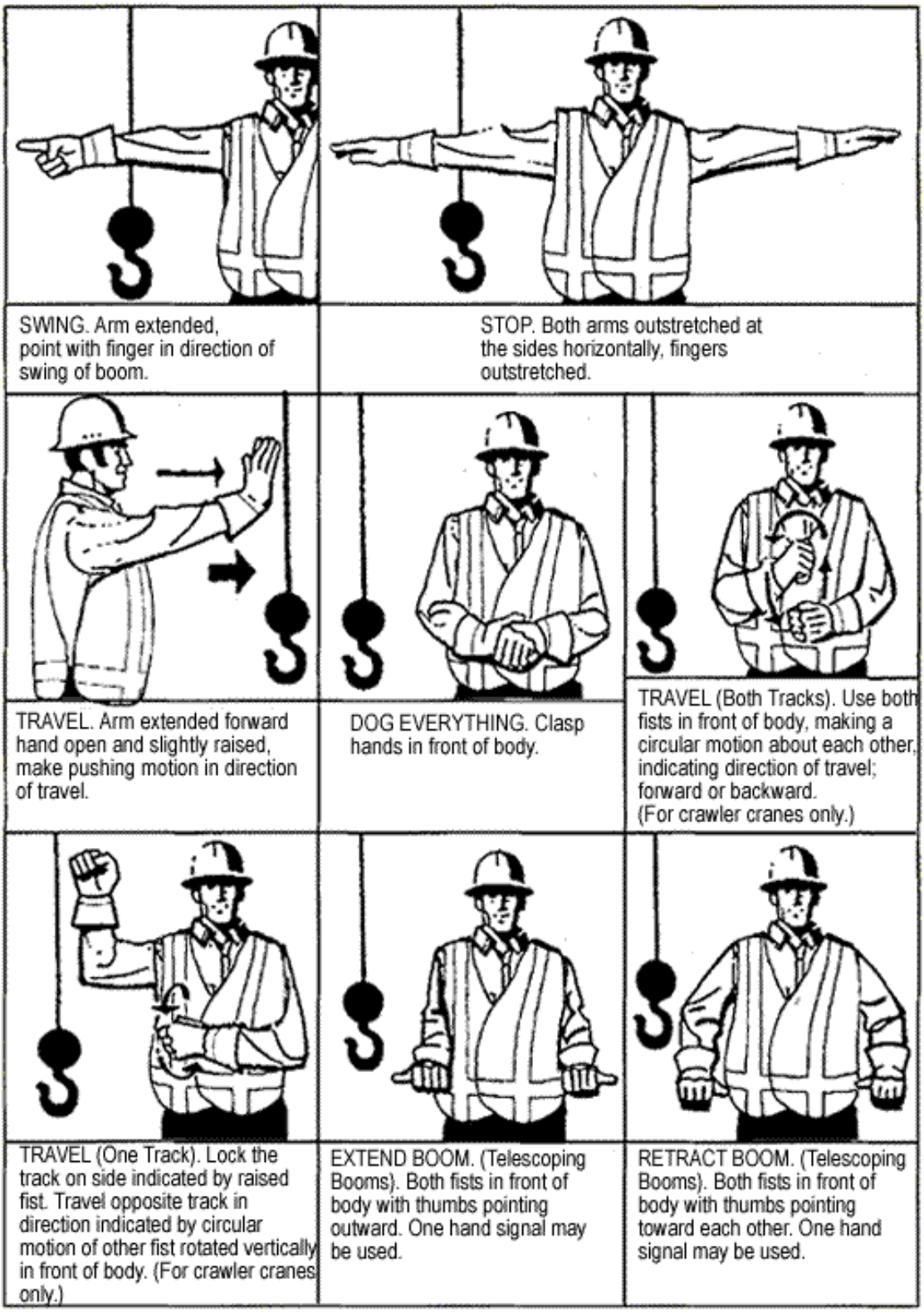

SWING. Arm extended, point with finger in direction of swing of boom.	STOP. Both arms outstretched at the sides horizontally, fingers outstretched.
TRAVEL. Arm extended forward hand open and slightly raised, make pushing motion in direction of travel.	DOG EVERYTHING. Clasp hands in front of body.
TRAVEL (Both Tracks). Use both fists in front of body, making a circular motion about each other, indicating direction of travel; forward or backward. (For crawler cranes only.)	
TRAVEL (One Track). Lock the track on side indicated by raised fist. Travel opposite track in direction indicated by circular motion of other fist rotated vertically in front of body. (For crawler cranes only.)	EXTEND BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing outward. One hand signal may be used.
RETRACT BOOM. (Telescoping Booms). Both fists in front of body with thumbs pointing toward each other. One hand signal may be used.	

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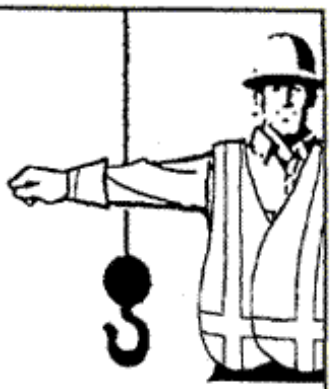
MAGNET IS DISCONNECTED. Crane operator spreads both hands apart -- palms up.

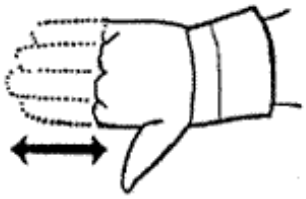
OPEN CLAM SHELL BUCKET. Arm extended, palm down, open hand.



CLOSE CLAM SHELL BUCKET. Arm extended, palm down, close hand.

HOIST SLOWLY TO CLEAR FOULED LINE. Hands crossed in front, above shoulders, fingers relaxed.

BOOM UP AND LOWER THE LOAD. One hand.



BOOM DOWN AND RAISE THE LOAD. One hand.

STOP. One hand.

WHIP LINE. One hand.

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Scaffolds

The purpose of the scaffold policy is to protect and educate employees and contractors from injury. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for the Scaffolds.

CSA Requirements
Westward ensures that scaffolds are erected to provide working platforms during the construction, alteration, repair or demolition of buildings and other structures comply with applicable CSA Standards - S269.2-M87 (R2003), Access Scaffolding for Construction Purposes.

Training
All Westward workers who work on or around scaffolds receive training at orientation and refresher training every year thereafter.

The Westward worker must be competent when working with scaffolds. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. Westward ensures that all workers on a scaffold are informed of the maximum load that the scaffold is permitted to carry.

A Westward worker who erects, dismantles, or works on scaffolding must receive training at orientation and refresher training every year thereafter.

The Westward worker must be competent when working with scaffolds, aerial device, or elevating work platforms. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. The following is discussed in training:

- Prior to beginning a task workers must be informed of the maximum load that the scaffold, aerial device, or elevating work platform is permitted to carry.
- Inspection and defect recognition.
- Scaffold tagging requirements.
- Safe operation of aerial device or elevating work platform.
- The manufactures instructions and recommendations.
- The proper use of all controls and any limitations on the surfaces on which the device or platform is designed to be used.

Inspection
The employees of Westward have a responsibility to inspect the scaffolds before each use.

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Westward ensures that the scaffolds are inspected by the workers, are safe to use, and are able to withstand the load, regardless of who erected the scaffold. All aerial devices, elevating work platforms, suspended powered scaffolds, personnel lifting units or scaffolds must be tagged. A maintenance inspection record tag has the following recorded on it:

- the date of the last maintenance,
- the name and signature of the person who performed the maintenance, and
- an indication that the maintenance has been carried out in accordance with manufacturers recommendations.

The tags will be colour coded and used at each point of entry indicating its status and condition.

- Green tag indicates it is safe for use.
- Yellow tag indicates caution and that there may be a potential or unusual hazard.
- Red tag indicates that it is unsafe for use. It must be removed from the workplace and repaired or discarded into the garbage (scaffolds).

The maintenance and inspection of any aerial device, elevating work platform, suspended powered platform, personnel lifting unit or scaffold must be completed only by a competent worker and address (where applicable):

- That the scaffold planks are free of defects before the planks are incorporated into a scaffold.
- If a manufactured scaffold plank is used according to the manufacturers' recommendations and is clearly marked with its maximum working load or the load specifications are readily available at the worksite.
- Where a metal scaffold is used it is inspected prior to use and daily when in use for any damage, deterioration or weakening of the scaffold or the scaffolds components.
- If a metal scaffold or a component of a metal scaffold is damaged, deteriorated or weakened so that the strength or stability of the scaffold is affected, the scaffold must not be used until the scaffold or component is repaired or replaced by a competent person in accordance with the manufacturers or a professional engineers specifications and recommendations.

A worker must not use a scaffold if it has a red tag, a green or yellow tag that has expired, or no tag at all.

Record Keeping

Westward keeps records of the inspections and maintenance carried out; these are kept at the work site and readily available to a worker who will use the aerial device, elevating work platform, suspended powered platform, personnel lifting unit or scaffold.

Scaffold Design Requirements

A single pole or double pole scaffold must be supported against lateral movement by adequate bracing, anchored by one tie-in for each 4.6 metre vertical interval and one tie in for each 6.4 metre horizontal interval, anchored by one tie in for each 3 metre vertical interval (hoarded masonry walk-through scaffolds have different anchor and tie-ins space requirements), and set plumb on a base plate, jackscrew or other load dispersing device on a stable surface with the ledgers and bearers level. Protection from impact from vehicles and powered mobile equipment must be employed where the hazard exists.

The base of a scaffold must have bearing plates or sills that rest on a solid surface and are sufficient to support the weight of the scaffold. The poles, legs and uprights of a scaffold must be securely and rigidly braced to prevent movement.

A scaffold must be designed and constructed to support at least 4 times the load that may be imposed on it; the load the scaffold is subjected to must never exceed the equivalent of 1/4 of the load for which it is designed.

The platform of each scaffold must be a minimum nominal width of 50 cm (20 in), except that a nominal 30 cm (12 in) wide work platform may be used with ladder jacks, pump jack or similar systems. Only one opening in the work platform is allowed, which must be no greater than 25 cm (10 in) in width. If the platform is not level, it must be designed to ensure adequate footing of workers.

All connections between the parts of a scaffold must be secure.

General Precautions

Where a scaffold is partially or fully enclosed all scaffold components and tie-ins must be adequate to support the added load that may be placed on the scaffold as a result of wind or other adverse weather conditions.

Where a suspended scaffold, suspended powered scaffold or load-carrying unit is suspended from or attached to a structure, Westward will ensure that wire mesh, or other material equally effective to prevent objects from falling from the working surface, is installed from the working surface to a height of at least 900 millimetres on all sides except the side adjacent to the structure.

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A worker is not required or permitted to work on an exposed energized high voltage electrical conductor from an aerial device or elevating work platform unless the controls are operated by the worker on the device or platform. A scaffold must be effectively grounded if it is a metal scaffold and is located close to a high voltage energized electrical conductor or equipment, and a hazardous level of electrical charge is likely to be induced in the scaffold.

While a worker is on a work platform mounted on a forklift and the forklift is in the raised position, Westward will ensure that the operator remains at the controls and does not move the forklift. A work platform mounted on a forklift on which a worker may be raised or lowered or required or permitted to work must be:

- Designed and constructed and certified safe for use by a professional engineer to support safely the maximum load that the platform is expected to support.
- Securely attached to the forks of the forklift to prevent accidental lateral or vertical movement of the platform.
- Equipped with guardrails and toe-boards.
- Equipped with a screen or similar barrier along the edge of the platform adjacent to the mast of the forklift to prevent a worker from contacting the mast drive mechanism.
- Occupied only by a worker working using a personal fall arrest system.

Dangerous Occurrence

Westward will give notice to the division as soon as is reasonably possible of any structural failure or collapse of a scaffold or the failure of an elevated or suspended platform. The notice must include:

- the name of each employer, contractor and owner at the place of employment;
- the date, time and location of the dangerous occurrence;
- the circumstances related to the dangerous occurrence; and
- the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be contacted for additional information.

Tools, Equipment, Machinery, and Safeguards

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for Tools, Equipment and Machinery.

Training and Competency
All Westward employees receive basic training by a qualified person for all tools, equipment and machinery they may be required to use at orientation and as needed after that. The training will address the safe and proper inspection, maintenance, and use of all tools and machinery that he/she is required to use. All workers must have the proper combination of experience, knowledge, and education to perform the work required.

Workers must be competent when working with all tools, equipment and machinery required to do their job. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file.

Potential High Risk Areas
Westward has identified areas that workers may have potential contact between moving parts of machinery, electrically energized equipment or part of the work process with the workers clothing, jewelry or hair.

The following are some tools, equipment and machinery that have safeguards and are present at Westward.

- Grinders
- Power Saws
- Hand Drill
- Table Saw, Power Saw, Band Saw, Jig Saw
- Energized Cables

A hazard assessment has been completed on the above equipment or machinery. The appropriate Personal Protective Equipment must be worn when working with the machinery or equipment.

Preventing Contact
Westward management, supervisors, workers ensure that:

- Clothing fits closely to the body;

- Bracelets, rings, dangling neckwear, a wristwatch or similar articles are not worn;
- Head and facial hair is short or confined and cannot be snagged or caught.

Warning Signs
Adequate, appropriate and clearly visible warning signs must be placed at each point of access to a machine that starts automatically.

CSA Requirements
Westward must ensure that the application, design, installation, application, operation, and maintenance of safeguards including an opening in a guard and the reach distance to a hazardous part meet the requirements of CSA Standard Z432_04, Safeguarding of Machinery. This is best done in the purchase stage; prior to purchasing any equipment it must be assured that it meets this CSA Standard.

Inspection
The employees of Westward have the responsibility to inspect the equipment or machinery before each use and monthly; the monthly inspection must be recorded on Westward Equipment Inspection Form.

- A Westward worker must ensure that the equipment or machinery is inspected thoroughly at the beginning of the shift to ensure that it is functional and safe.
- If the machinery or equipment has a defect or is deemed unsafe then it must be reported and removed from operation and identified in a manner (mark or tag) that will ensure it is not inadvertently returned to service until repaired.

Machine Operator Responsibilities
Before starting machinery, all Westward operators must ensure that starting or operation that the machinery will not endanger the themselves or another worker. The start-up of machinery can cause injury to workers near the machine if they are not aware that the machine is being started. If a machine operator cannot see the machine or parts of the machine being operated from the control panel or operator's station, and moving machine parts may endanger workers, an alarm system must be installed. The alarm system may include sirens, buzzers, horns, flashing lights or a combination of these alarms. A combination of both visual (flashing lights) and audible (siren, buzzer or horn) alarm systems provides the best protection.

Safeguards
The purpose of safeguards is to prevent a worker from coming into contact with hazardous areas while operating a machine, and to make the machine inoperative

if the employee or any part of his clothing is in or near a part of the machine that is likely to cause injury. Westward will provide safeguards if a worker may accidentally, or through the work process, come into contact with:

- moving or rotating parts of machinery or equipment,
- a pinch point,
- cutting edge or point of machinery or equipment at which material is cut, shaped, or bored,
- surfaces with temperatures that may cause skin to freeze, burn, or blister, including an open flame, a steam pipe or other surface with a temperature that exceeds or may exceed 80 degrees Celsius or a cooled surface that is or may be less than minus 80 degrees Celsius,
- energized electrical cables,
- debris, material, or objects thrown from machinery or equipment,
- material being fed into or removed from process machinery or equipment,
- machinery or equipment that may be hazardous due to its operation, or
- any other hazard.

At no time should any of the machinery or equipment at Westward be used without a safeguard, if equipped. Alternatively, if the supervisor determines that an effective safeguard cannot be provided in the circumstances, Westward must ensure that an alternative mechanism or system or a change in work procedure is put into place to protect workers from being exposed to hazards that exist if there is no safeguard.

It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for the following equipment that have Safeguards:

A hazard assessment has been completed on all equipment or machinery. The appropriate Personal Protective Equipment must be worn when working with the machinery or equipment.

Removing, Tampering or Disabling Safeguards

A Westward employee is never to remove, tamper, or disable any safeguard from a machine that is operating if the safeguard is not designed to be removed when the machine is operating; a safeguard must remain in place at all times. The only time it is acceptable to remove a safeguard or make it ineffective is when it is necessary to perform maintenance, tests, repairs, adjustments or other tasks on equipment at that time the safe work procedure will be followed. If a worker removes a safeguard or makes it ineffective, the worker must ensure that:

- alternative protective measures are in place until the safeguard is replaced,
- the safeguard is replaced immediately after the task is completed and before a worker is required or permitted to use the machine, and
- the safeguard functions properly once replaced.

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All Westward employees, when doing maintenance on the machinery or equipment, must follow the Lockout Tagout procedures and render the equipment or machinery inoperative. A copy of Lockout Tagout instructions will be kept readily available for the information of the person who perform repair and maintenance work on machines.

A fixed guard must not be modified to be readily removable without the use of tools.

Hand Tools

Hand tools that are in poor condition or misused are a major cause of accidents in the workplace. Proper maintenance and necessary replacement of hand tools are critical to reducing accidents and injuries. All workers must ensure that tools are safe to use, in good repair, adequate for the work, and free of defects.

Safe Work Practices - General

1. Workers must inspect hand tools before use to ensure that they are in proper working order. Damaged or defective tools must be reported to the supervisor and must be repaired or removed from service.

2. Supervisors must periodically inspect shop tools to ensure that tools are in proper working condition and meet appropriate guidelines.

3. Tools and jigs especially designed for a specific purpose should be checked by a qualified person to ensure that there are no inherent or hidden safety hazards.

4. Proper and appropriate personal protective equipment must be worn when using all tools.

5. All tools must be cleaned and properly stored after use. Each tool must have its own storage area to prevent damage. This is particularly important with power tools.

6. Tools must not be used beyond their manufacturer’s designed capacity since such use may create a personal hazard. Tools must be used solely for their intended purpose. The designed capacity of tools must not be exceeded by unauthorized attachments.

7. Power drills, disc sanders and grinders, (when used in the hand-held mode) must be operated with deadman controls that require constant hand pressure.

8. Face shields or goggles must be worn when operating a grinder.

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9. Power saws, grinders, and other power tools must have proper guards in place at all times and must be properly grounded. Those with automatically adjusting guards must be inspected for proper movement.

10. All fuel-powered tools must be shut down while being refueled. Smoking is prohibited during refueling operations. Other nearby sources of ignition, such as cutting and welding, also must be halted during refueling operations.

11. Chisels, screwdrivers, and pointed tools should never be carried in a pocket. They should be carried in a toolbox, cart, carrying belt, tool pouch, or in the hand with points and cutting edges away from the body.

Listed Tools
Screwdrivers: Ensure that handles are smooth and clean and that bits are sharp and square. A sharp square-edged bit will not slip as easily as a dull rounded one and requires less pressure. When working around electrical-current-bearing equipment, use an insulated screw-driver as a secondary precaution.

Hammers: Ensure that handles are unbroken and clean and that the face of the head is smooth and clean. Hammers are made in various types and sizes, with varying degrees of hardness and different configurations for specific purposes. Use the correct hammer for the correct purpose.

- Ball-Peen Hammers are designed for striking chisels and punches and for riveting, shaping, and straightening unhardened metal.
- Sledge hammers are designed for general sledging operations in striking wood, metal, concrete, or stone.

Always wear safety glasses when using a hammer. A hammer blow should always be struck squarely.

Punches are designed to mark metal and other materials that are softer than the point end, to drive and remove pins, and to align holes. Never use a punch with a mushroomed struck face or with a dull, chipped, or deformed point. Any bent, cracked, or chipped punch must be removed from service.

Cold chisels have a cutting edge for cutting, shaping, and removing metal softer than the cutting edge. Factors determining the selection of a cold chisel are the material to be cut, the size and shape of the tool, and the depth of the cut to be made. Ball chisels held by one person and struck by another require the use of tongs or a chisel holder to guide the chisel.

Knives: Ensure that the handle is guarded and that the blade is sharp. The cutting stroke should be away from the body. Avoid jerky motions. Keep knives and other

sharp hand tools separated from other tools. With the knife's sharp edge turned away from the hand, wipe the blade with a towel or cloth. Do not substitute knives for can openers, screwdrivers, or ice picks.

Shovels: Keep shovel edges trimmed, and check handles for splinters. When not in use, hang up shovels, stand them against walls, or keep them in racks or boxes.

Wrenches (Spanners): Safe use of all wrenches requires that the user always be alert and prepared for the possibility that the wrench may slip, the fastener may suddenly turn free, or the wrench or fastener may break. The user must always inspect the wrench for flaws.

- Open-end wrenches have strong jaws and are satisfactory for medium-duty turning.
- Box and Socket Wrenches are necessary for a heavy pull. Never overload the capacity of a wrench by using a pipe extension on the handle or by striking the handle with a hammer. When possible, use penetrating oil to loosen tight nuts.
- Socket wrenches should be kept clean of dirt and grime inside the socket to ensure that the tool fits securely on the bolt or nut.
- Adjustable wrenches are generally recommended for light-duty work. Place the adjustable wrench on the nut with the open jaws facing the user; wrenches should be pulled, not pushed.
- Both straight and chain pipe wrenches must have sharp jaws and be kept clean to prevent their slipping. The handle of every wrench is designed to be long enough for the maximum allowable safe pressure. Do not use handle extensions to gain extra turning power unless the wrench is so designed. Never use a pipe wrench on nuts or bolts.

Pliers may be used for gripping and cutting operations, but they are not a substitute for a wrench.

Pliers and Cable Cutters: Use long nose pliers to grip small objects, reach awkward places, holding wires, bend loops and attach wires.

- Use utility pliers to grip round, square, flat and hexagonal objects.
- Use diagonal cutting pliers to cut and skin wires, cut and remove pins, nails and other fasteners.
- Use flat nose pliers to grip, turn and bend wires.
- Use slip joint pliers to adjust nuts or bolts.
- Use end cutting pliers to cut wires, nails or rivets close to work.
- Ensure that toothed jaws are clean and sharp. Greasy or worn jaws can result in compromised safety. Such tools also require increased force to hold the work piece.

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- Select pliers or wire cutters that have a grip span of 6 cm - 9 cm (2 1/2 - 3 1/2 in.) to prevent your palm or fingers from being pinched when the tool is closed.
- Select adjustable pliers that allow you to grip the workpiece firmly while maintaining a comfortable handgrip.
- Operation
- Pull on pliers; do not push away from you when applying pressure. If the tool slips unexpectedly, you may lose your balance or hit your hand against something.
- Cut material at right angles.

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Transportation - Alberta

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures.

Training and Competency
All Westward workers must have the proper combination of experience, knowledge, and education to perform the work required. All drivers must prove the proper license for the vehicle they are in control of.

Workers must be competent when driving for Westward. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

All training documents are kept on file.

Driver Records
Each Westward driver has supplied the following information for his or her drivers file:

- The driver's completed application form for employment with the registered owner;
- A copy of the driver's abstract in a form satisfactory to the Registrar when the driver is first hired or employed, dated within 30 days of the date of employment or hire;
- Annual updated copies of the driver's abstract in a form satisfactory to the Registrar;
- The driver's employment history for the 3 years immediately preceding the time the driver started working for the carrier;
- A record of the driver's convictions of safety laws in the current year and in each of the 4 preceding years;
- A record of any administrative penalty imposed on the driver under safety laws;
- A record of all collisions involving a motor vehicle operated by the driver that are required to be reported to a peace officer under any enactment of Alberta or a jurisdiction outside Alberta;
- A record of all training undertaken by a driver related to the operation of a commercial vehicle and compliance with safety laws;
- A copy of any training certificate issued to the driver, in electronic or paper form, for the period starting on the date the training certificate is issued and continuing until 2 years after it expires, in accordance with

Part 6 of the *Transportation of Dangerous Goods Regulations* under the *Transportation of Dangerous Goods Act, 1992* (Canada);
- A copy of a current medical certificate for the driver.

The information above is kept at the Westward head office.

Inspections and Defect Reporting
All Westward drivers will inspect his or her vehicle daily. Inspections are recorded on the Westward Daily Trip Inspection Form and include an inspection of the following equipment:
- The lighting devices and reflectors,
- The tires,
- The coupling devices,
- The wheels and rims,
- The service brake, including the trailer brake connections,
- The parking brake,
- The steering mechanism,
- The horn,
- The windshield wipers,
- The rear vision mirrors, and
- The emergency equipment.

Any defects will be recorded on the Westward Daily Trip Inspection Form. If the defect is such that it affects the safe operation of the vehicle the driver must immediately notify Westward to repair or otherwise modify the vehicle, or cause it to be repaired or modified before the vehicle is operated on a public road.

Security of Loads
Westward equips all vehicles appropriately to allow for proper securement of all loads. All personnel must ensure that cargo transported by a commercial vehicle is contained, immobilized or secured so that it cannot leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle, or shift upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely affected. The security of a load must be periodically checked to ensure it stays secure.

Any property transported inside of the cab must be secured or stored to prevent risk of injury to the driver or any passenger by its falling, displacement, or other movement.

Hours of Service and Documentation
No driver is permitted to drive if the driver has accumulated 13 hours of driving time in a day. No driver is permitted to drive and no driver will drive after the driver has accumulated 15 hours of on-duty time in a day.

Requirement to Fill Out a Daily Log
Accurate and legible records must be kept in the Log Book showing, for each day the following:

- The driver's duty status,
- Elected cycle,
- Hour at which each duty status begins and ends, and,
- The total number of hours spent in each status.

The driver must maintain a duplicate of the above records for a period of at least 6 months from the date that the information is recorded in the daily log in a neat and orderly manner at the residence of the driver. If requested by a Peace Officer all drivers will, within 7 days, produce the duplicate of the daily logs to the peace officer for inspection.

Retention of Records
Westward keeps a copy of all records including logbooks, drivers files, inspections, defect reports for at least 5 years from the date they are created, established or received. All records are kept in a secure (locked) cabinet and have been checked for legibility.

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Use of Portable Fire Extinguishers

The purpose of this practice is to protect workers from injuries associated with IMPROPER use of fire extinguishers.

Portable fire extinguishers must be installed, inspected and maintained on a regular basis to ensure proper operation in an emergency. Westward is required to ensure proper selection of equipment with regards to the work hazards and regulations.

Training
Supervisors are responsible to facilitate and/or provide proper instruction to their workers. The training must address the following worker responsibilities:

1. Ensure you are fully trained with operation and maintenance of fire extinguishers.
2. Check Cylinder.
3. Inspect cartridge puncture cap.
4. Weigh cartridge.
5. With cartridge removed, check action of puncture lever.
6. Check hose and nozzle for obstruction.
7. Check date of manufacture.
8. Check level and condition of powder.
9. Check fill-cap threads and gasket.
10. Attach visual seal.
11. Check Pressure Gauge.

Procedure
As soon as a fire is discovered:

- Sound the alarm and start to evacuate.
- Call the fire department.

These are important steps for everyone's safety, even if you feel the fire can be brought under control by using an extinguisher.

If you decide the fire is manageable…

- Test that the extinguisher works before you approach the fire.
- Protect yourself at all times.
- Take care. Speed is essential but it is more important to be cautious.
- Keep your back to the exit at all times and stand 2 to 2.4m (6 to 8 ft.) away from the fire.
- Follow the 4-step P-A-S-S procedure:
    1. Pull the pin (release the lock latch or press the punch lever).

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2. Aim the nozzle at the base of the fire.
3. Squeeze or press the trigger.
4. Sweep the extinguisher from side to side.

If the fire does not go out immediately or the extinguisher appears to be getting empty, leave the area at once. Back out with the lever squeezed and the nozzle pointed at your feet. This will help protect you until you are out of the area.

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Vehicle Authorization through Work Sites (Suncor)

We recognize that our vehicles may cause additional hazards on sites.

While on a Suncor location a Vehicle Entry Authorization is required for any motorized vehicle entering designated areas without a Safe Work Permit, where it may create an ignition hazard:

- To perform maintenance or project work
- To drop off or pick up supplies or personnel

Workers, upon check in at the Permit Center, must review the up-to-date list of restricted zones to determine if they require a Vehicle Entry Authorization.

Designated Areas or Tasks Requiring Authorizations

Extraction:

All areas not designated as lay down areas.

Upgrading:

- All Areas:
- Vehicle operators requesting a Vehicle Entry Authorization for heavy mobile equipment that may be required to cross over Upgrading plant fire water run off trenching. Access for any equipment will be limited by:
    - Maximum single tire loads less than 16 000 lbs.
    - Maximum single tire loads in a pair of tires less than 12 000 lbs.
- Tire Loads are based on the use of DB heavy duty grating; size 4x3/8 with a span of 4 feet and one square foot tire contact.
- Upgrading fire water run off trenching damage will be mitigated by:
    - Steel plates 8 feet x 4 feet standard size by 3/4 inch thickness extending equally over the sides of the 4 foot wide trench.
    - Positioning of wheels or outriggers will not be within3 feet of any trench
    - Any further enquiries are to be addressed by the Upgrading Maintenance Engineering e.g. different grating sizes or dimensions.

Designated Areas or Tasks Not Requiring Authorizations

Extraction:

Plant operations vehicles do not require authorizations for access to Plant 3, 85, 86 and booster station and the pond barges. However, gas tests must be performed and documented in the log book prior to entry.

- Designated lay down areas
- East side of Line 6
- Plant 4/16, IST, WHRU, IPS1, IPS2

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- Alley between BRFT and Plant 87 MCC
- West side of Plant 87
- FTPH Booster Station

Note: Area Operations will perform daily gas tests in these areas at the start of each shift or on as required basis during each shift.

Upgrading:

- Sulphur Loading Vehicles
- Bitumen Unloading Vehicles
- Diesel Loading Vehicles

Note: The above mentioned vehicles must use only established designated routes and are subject to travel restrictions during established curfew periods.

Vehicle Idling

We recognize that unnecessary vehicle idling wastes fuel and generates harmful emissions. Westward is responsible to the public to be environmentally conscious and is proactively seeking environmentally friendly initiatives to incorporate into daily activities. One such initiative is the reduction of vehicle and equipment idling. Excessive idling is associated with multiple negative effects including respiratory problems, increased production of greenhouse gases, inefficient use of fossil fuel resources, and unnecessary fuel costs.

Our target is to reduce our environmental impact. We will reduce air emissions by carpooling, reducing idling, environmentally aware purchasing policy, and following safe work practices.

Vehicles and equipment should not be left idling, unless required to properly warm up. The emissions caused by idling can be significant.

We will follow the following practices, when applicable:

- Vehicles shall never be left idling when unattended.
- Engine warm-up periods will not exceed 1 minute
- Vehicles will be shut off whenever idling time is expected to exceed 1 minute.

The following exceptions to this standard have been identified and exist only under the following circumstances:

- For vehicle maintenance and diagnostic purposes.
- Under extreme weather conditions or any other time when the health and safety of employees or others may be jeopardized.
- If the unit is not expected to be able to restart due to mechanical problem.
- Emergency response vehicles while on the scene of an emergency or during training sessions.
- Operation of the engine is required to power auxiliary equipment, for example, hoist, lift platform, hydraulic tools, power inverters, and electronic equipment.

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Vessel, Pipe Failures (corrosion) Potential Exposure

Our workers, during the course of performing tasks, may be exposed to areas of vessels, piping, and other metal materials that have degraded over time or weakened by corrosion. The potential exists for a simple bump to create a failure of the metal causing leakage.

Training
All Westward workers potentially affected by this hazard receive training at orientation and on an ongoing basis.

Westward ensures all workers are competent. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision.

Workers are trained in the following:

- To maintain all weight is on the device keeping them up (scaffolding, fall protection, rope access, etc.).
- Not to step on piping or areas not designed to be stepped on.
- Ensuring tools are tied so they do not fall.

Reporting
After any failures (leakage, dents, dropped on) work must immediately be stopped. Workers must notify Westward and Westward will immediately notify the client.

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Welding Safety

1. Consider other workers **before** striking an arc.
2. Do not weld while standing in water.
3. **Never** weld near gas pipes or gas containers.
4. Do not use defective cables or electrode holder.
5. **Wear proper personal protective equipment:**
    - non-flammable clothing
    - helmet, goggles, ear and eye protection
    - knee pads
    - respirator or filter mask
6. Use a **continuous** gas detector where possible to detect toxic or flammable vapours.
7. Use adequate **approved ventilation,** or approved respirator, while welding in confined spaces or when working on zinc, brass, bronze, stainless steel, galvanized or lead coated materials.
8. **Keep** combustible materials out of the welding area.
9. **Keep a fire extinguisher handy.**
10. **Protect** combustible materials with fire blankets or non-flammable guard.
11. Do not wear jewelry on the job.
12. Handle compressed gas cylinders carefully.
13. Do not use a **cutting torch** as a hammer.
14. Do not weld on any vessel or pipe that has not been properly cleaned of all flammable vapours.
15. **Keep walkways clear** of hoses & cables.
16. When leaving the area, turn off gas cylinders first, then turn off the torch after bleeding hoses.
17. Never heat an object **lying flat** on a **concrete** floor.
18. Welding equipment shall be operated **only** by authorized persons.
19. **New or used electrodes** shall not be left lying on floors, walkways, or where they may cause a hazard.
20. **Welding screens** shall be used where practical to prevent other persons from being exposed to the welding arc.
21. **Shut off** welding machine when stopping work for any appreciable length of time.

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Wildlife Awareness

Wild animals are quite beautiful in nature; however they are unpredictable and can quickly become dangerous. Often any animals want to avoid humans but different situations can change that; when an animal is sick, injured, with young offspring, or just hungry they can act out of character. Never assume you can predict what they will do.

The following animals will be discussed:

- Bears,
- Rattlesnakes,
- Ungulates (deer, moose, etc.)
- Canids (coyotes, wolves, etc.)

Bear Awareness

Bear Country

Many operations are moving into increasingly remote wilderness areas. This territory is prime bear habitat and the frequency of bear encounters is increasing dramatically. To avoid tragic results it is important to have a good understanding of bears and their behaviour.

Bears are wild animals with unpredictable behaviour patterns. All bears are potentially dangerous. When threatened or surprised they will defend themselves, their young and their territory. Bears are very strong, surprisingly agile and capable of inflicting serious injury in an attack.

The normal diet of a bear will include roots, berries, grubs and other insects, and the occasional small mammal or fish when it's available. Bears will sometimes feed on carcasses of dead animals or take over kill from other predators. A keen sense of smell directs the bear to food sources, sometimes from great distances. Both species will venture into human environments if there is food readily available. The attached diagram provides descriptive characteristics of both species for identification purposes.

Safety Precautions

Practicing some basic precautions will aid immensely in avoiding encounters with bears. When you are working in a wilderness situation remember the following points:

1. ***Work with a team, and be loud*:** Whistle, talk, sing or carry a noisemaker such as a bell. Some crews carry compressed air horns about the size of a spray can and blow them at regular intervals to make their presence known. Most bears will leave the area if they are aware of your presence. Stay in

open areas as much as possible and remain aware of what is happening around you. Do not wear headphones while listening to music - this will block out any warning noises, even the shouts of your companions.

2. ***Observe the wind direction:*** Be especially alert if you are traveling into the wind. The bear may not pick up your scent and be forewarned of your presence. If you are working in dense brush or near rushing water the bear may not hear your voices or a small noisemaker.
3. ***Avoid dead animals and berry patches***: These are prime food sources for bears. Circling crows or ravens often indicates the presence of a carcass.
4. ***Be observant and watch for bear signs***: Fresh tracks, droppings and new diggings are all signs that a bear is in the area. If you see fresh bear signs, leave the area!
5. ***Leave your dog at home***: Dogs infuriate bears while posing no threat to them. Your pet may come running back to you for protection with an angry bear in hot pursuit!
6. ***Never approach a bear***, especially a cub. The mother is usually close and will attack if she thinks her cub is in any danger.

Bear Confrontations

Even though you follow all these precautions, you may still have an encounter with a bear. While there is no guaranteed method of dealing with a bear confrontation, some of the points that follow have proved useful:

1. ***Leave the area:*** if you see the bear from a distance take a wide detour or leave. If you cannot retreat, then wait for the bear to move from your path. Always leave the animal an escape route.
2. ***Stay calm:*** Acting in a calm and relaxed manner so as not to threaten the bear has proved most successful. Assess your situation and look for possible escape routes or safe trees.
3. ***Move slowly:*** Slowly back up, and speak to the bear in a soft monotone voice. Screaming or sudden movements may provoke an attack. Never throw anything at a bear and do not try to run away. Bears can run about the same speed as a racehorse and have very fast reflexes.
4. ***Monitor the bear for aggressive behaviour:*** The bear may snap its jaws and make a "woofing" sound. It may keep its head low and have its ears laid back. If the bear moves towards you consider this an aggressive act. Sometimes a bear will try to bluff its way out of a threatening situation by charging and then veering away at the last second. A bear that rears on its hind legs and waves its nose in the air is trying to identify you. Remain still and speak in low tones. If the bear does not display aggressive behaviour, continue talking to it and back away slowly. Remember - never run!
5. ***Look for a tree to climb:*** if the bear is behaving aggressively, back slowly towards the tree. Carefully remove your pack or jacket and set it on the

ground to distract the bear. Climb as high into the tree as you can. Although adult grizzlies rarely climb trees a large one can easily reach over 4 metres. Stay in the tree until you are sure the bear has left the area, and then leave the area quickly. Be aware that black bears are good climbers and a tree might not afford an escape from them.

Bear Attacks

Most bear attacks occur when a bear is surprised - usually a mother with cubs or a bear protecting its food. There is no guaranteed life-saving method of surviving a bear attack; often things happen so fast that conscious thought is not possible. Each situation is unique. However, there are some general guidelines that have proven to be helpful in past attacks. There are some distinct differences in tactics, depending on the species of bear you are dealing with.

Grizzly Bear: playing dead and offering no resistance may be effective. Curl up in ball covering your face, neck and abdomen. Remain still until the bear leaves the area. This method requires a significant amount of courage but has resulted in successfully surviving an attack. Fighting back usually increases the intensity of the attack, although in rare cases it has caused the bear to leave.

Black Bear: playing dead does not work. Try to escape to a secure place or climb high into a tree. Remember a black bear may climb the tree after you. A last resort is to threaten the bear with any available object. This tactic has worked with some bears. Fighting back also resulted in black bears breaking off attacks.

Bear Deterrents

Recently, a few commercially available bear deterrents have appeared on the market. These use a compound called "cap-secum" as the active agent and come packaged in a compressed gas container about the size of a large spray can. Usually these hang from a holster on your belt and are employed by spraying the charge in the bears face, causing the bear great difficulty in breathing and seeing, allowing the victim time to escape.

Although they may sound promising, it should be noted that chemical bear deterrents are experimental and by no means a proven technology. In reliability tests some brands failed to discharge almost 40% of the time. Interviews with several bear attack victims suggest that even if they had such a canister with them, they doubt whether they would have had time or presence of mind to use them.

Manufacturers claim ranges of up to 5 metres; however bear experts suggest that an 800-pound bear charging at full speed would close that difference in a half of a

second. This, they say, probably means that even if the shot was successful your best scenario is still a very painful collision. The worst case, of course, is that this is an aggressive act towards the bear, and if you miss or are only partially successful, you will almost certainly provoke an attack. Bear experts are very concerned that people carrying these deterrents will have a false sense of security and therefore actually increase their risk of a bear confrontation.

At best, deterrents are a last resort. Used at very close range they may end a potentially fatal attack, but are not a substitute for taking the necessary precautions to avoid aggressive encounters with bears. Take care NEVER to spray into the wind, this will just blind you and allow the bear to take charge of the situation.

Bear Identification

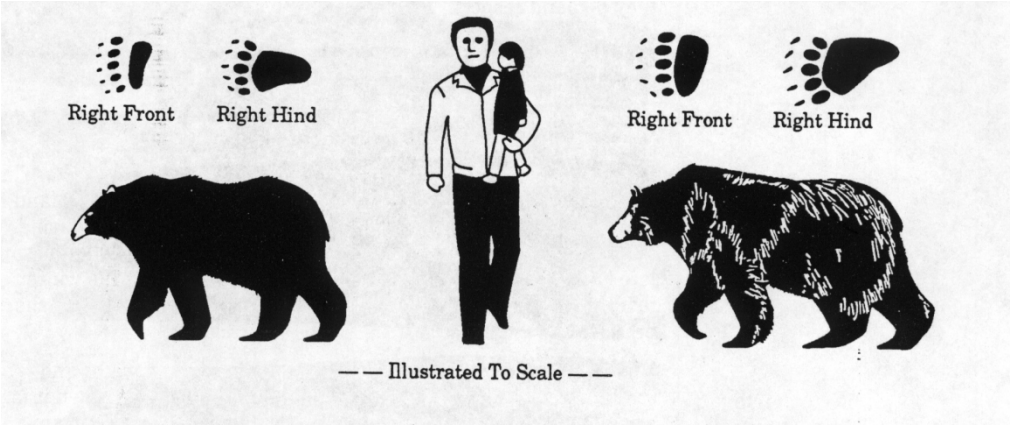
Black Bear (Ursus americanus Pallas)

Colour	Varies from pure black to cinnamon or blond – most are black with brownish muzzle, often a white patch below throat or across chest.
Height	About 90cm at the shoulder.
Length	About 1.5m.
Weight	Ranges from 57kg to >270kg – females are generally smaller than males.
Distinguishing Characteristics	Smallest member of the North American bear family. Usually has a straight facial profile with long nostrils. Feet are flat soled with short curved claws. Smaller than a grizzly and has a higher shoulder-rump line. Agile climber.

Grizzly Bear (Ursus arctos horribilis Ord)

Colour	Varies from black to blond – frequently with white tipped fur giving a grizzled appearance.
Height	A little over 1m at the shoulder – reaches 1.8 to 2m when standing on hind legs.
Weight	Averages about 200kg with some weighing up to 450kg – females are generally smaller than males.
Distinguishing	Prominent humps over the shoulder formed by the

Characteristics	muscles of the massive forelegs. Sloping back line. Dished or concave face. Long curved claws. A small grizzly is often hard to distinguish from a large black bear.



Rattlesnake Encounter

In the event of an actual or probable bite from a rattlesnake, execute the following first aid measures without delay:

Snake: Make sure that the responsible snake or snakes have been appropriately and safely contained, and are out of danger of inflicting any additional bites.

Transportation: Immediately call for transportation. Meet the ambulance half way, only if driver has not been bitten.

Telephone: **911**

Victim: Keep the victim calm and reassured. Allow him or her to lie flat and avoid as much movement as possible. If possible, allow the bitten limb to rest at a level lower than the victim's heart. Move the victim into the vehicle if you cannot secure the area. Treat the victim as if they were in shock.

Identify the bite site, looking for fang marks.

Remove any constrictive clothing or jewelry, which otherwise would act as a tourniquet and concentrate the venom and prevent fresh blood from entering the area (which is not desirable).

Mark swelling with lines and times every 10 minutes or so. This will help doctors assess the severity of the bite. You should always seek help immediately after a snake bite. You should also back away from the snake quickly, for some people

have been bitten multiple times because they failed to give the snake enough of the space it wants. Try to keep warm and calm. To help with the pain, you can use a compression bandage applied very lightly.

DO NOT cut or incise the bite site.

DO NOT apply ice to the bite site.

DO NOT attempt to suck out the venom with your mouth!!!

Sucking the venom will only cross the venom over to the saliva and rendering things worse for yourself or the person doing this procedure to the victim. Some of the symptoms are: swelling at the bite location, dizziness, nausea, numbness, difficulty in breathing, unconsciousness, and/or convulsions. If you're lucky, you'll have had a "dry" bite, which is when the snake bit you, but did not release any venom. As with any dangerous creatures, the best defence is to try to avoid the rattler all together.

Ungulate Safety

Often ungulates will take advantage of easy food supplies including apple (and other fruit) trees and landscaped gardens. This brings them into populated areas and often they become desensitized to humans. Two occasions where ungulates cause problems to workers include when they are on the road (vehicle collisions) and when they become aggressive (perceived threats to young, irritated by dogs, during the rutting season in late fall).

Tips to reducing risk:

- Never approach any ungulates. Keep your distance.
- Do not feed the ungulates.
- Clean up and areas where ungulates have been baited (for hunting purposes) if noticed.
- Use caution while driving, especially at dawn and dusk.
- Do not get between a mom and her young.
- Do not try to get close to animals that are fighting.
- Stay in your vehicle or back away and give them space. Do not make eye contact. Talk in a low reassuring voice as you back away.
- Keep dogs leashed and under control.
- Prepare to use bear spray, only if necessary.

Canids

It is not normal for wolves or coyotes to attack or pursue humans, especially adults. Aggressive behavior toward humans by wolves or coyotes is often the result of the

animal becoming conditioned/comfortable with people as a result of direct or indirect feeding, a sick/injured animal, or perceived threat for the young one.

If you are concerned about an encounter or about encountering aggressive wolves or coyotes, keep a deterrent handy. Deterrents could include: rocks, sticks, banging pots and pans, tin cans filled will rocks or pepper spray.

If a wolf or coyote approaches you:

- Make yourself look as large as possible - if sitting, stand for example.
- Wave your arms and throw objects (rocks, sand, sticks, etc.) at the wolf or coyote.
- Shout at the wolf or coyote in a loud aggressive voice.
- If the wolf or coyote continues to approach don't run or turn your back. Continue to exaggerate the above gestures and slowly move to safety.

Tips to reducing risk:

- Never approach any canid. Keep your distance.
- Do not feed the canids.
- Do not get between a mom and her young.
- Do not try to get close to animals that are fighting.
- Stay in your vehicle or back away and give them space. Do not make eye contact. Talk in a low reassuring voice as you back away.
- Keep dogs leashed and under control.
- Avoid areas where you can see a carcass.
- Prepare to use deterrents (including bear spray, only if necessary).

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Work Permits

A safe work permit is a written record that authorizes specific work, at a specific work location, for a specific time period. Permits are used for controlling and co-ordinating work to establish and maintain safe working conditions. They ensure that all foreseeable hazards have been considered and that the appropriate precautions are defined and carried out in the correct sequence.

The permit is an agreement between the issuer and the receiver that documents the conditions, preparations, precautions, and limitations that need to be clearly understood before work begins.

The permit records the steps to be taken to prepare the equipment, building, or area for the work, and the safety precautions, safety equipment, or specific procedures that must be followed to enable the worker(s) to safely complete the work.

Our workers are required to take the OSSA permit course is they are required to write and receive permits.

The safe work permit helps to identify and control hazards, but does not, by itself, make the job safe.

TYPES OF PERMITS:

a) Cold Work Permit

a. Cold work permits are used in hazardous maintenance work that does not involve “hot work”. Cold work permits are issued when there is no reasonable source of ignition and when all contact with harmful substances has been eliminated or appropriate precautions taken.

b) Hot Work Permit

a. Hot work permits are used when heat or sparks are generated by work such as welding, burning, cutting, riveting, grinding, drilling, and where work involves the use of pneumatic hammers and chippers, non-explosion proof electrical equipment (lights, tools, and heaters, and internal combustion engines.
b. Three types of hazardous situations need to be considered when performing hot work:
    i. The presence of flammable materials in the equipment;
    ii. The presence of combustible materials that burn or give off flammable vapours when heated; and

iii. The presence of flammable gas in the atmosphere, or gas entering from an adjacent area, such as sewers that have not been properly protected. (Portable detectors for combustible gases can be placed in the area to warn workers of the entry of these gases.)

c) Confined Space Entry Permit

a. Confined space entry permits are used when entering any confined space such as a tank, vessel, tower, pit or sewer. The permit should be used in conjunction with a "Code of Practice' which describes all important safety aspects of the operation.

d) Ground Disturbance Permit

a. Ground Disturbance Permits are required when a work operation or activity on or under the existing surface results in a disturbance or displacement of the soil, but not if the disturbance or displacement is a result of the following;
    i. Routine, minor road maintenance,
    ii. Agricultural cultivation to a depth of less than 450 millimetres below the ground surface over a pipeline, or
    iii. Hand-digging to a depth of no more than 300 millimetres below the ground surface, so long as it does not permanently remove cover over a buried facility.

Considerations when using a safe work permit:

A safe work permit should only be issued by a competent person who is completely familiar with the work or situation covered by the permit and who has control over the changes in that work area e.g. lead operator or supervisor or the appointed Permit Issuer.

The permit issuer must be sure that the work situation identified on the permit is as described. Where possible, the permit issuer should review the work or operation with the worker before work begins. If the permit issuer has not reviewed the site, this should be noted on the permit and the work situation should be discussed with the worker.

Written instructions alone are often insufficient in the effective use of a permit system. Practical training exercises for the people who issue and receive permits should be considered.

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The person receiving the permit must completely understand the work situation, the potential hazards, and the precautions required before accepting the permit.
Any special precautions not normally associated with the particular work should be identified to the receiver of the permit, who must fully understand the reasons for these precautions e.g. work to be done in an area where there is a possible exposure to H2S gas.

The permit issuer must be sure that the worker understands the hazards. If not, the permit issuer needs to review the Safety Data Sheet or other information with the worker to ensure that they understand the dangers of the product and the precautions to be taken.

All safe work permits must be signed by both the permit receiver and the permit issuer before work is started and after it is completed.

Pitfalls of work permits
Workers and supervisors do not always see the need for a safe work permit system; they have not been trained to recognize the added safeguards that such a program provides.

Factors leading to ineffective permit systems are:

- The type of format of the permit does not cover all the potential hazards.
- The issuing procedure is inadequate.
- The person signing the permit has not inspected the operation to see if the isolation, lock-out or testing has been done.
- Workers are not following or don't understand the requirements of the permit, especially the expiry time.
- The employer is not enforcing or auditing the work permit system.
- Permits are prepared too far in advance, or after the work has begun.
- A responsible person is not inspecting the operation after the permit has been issued.
- The system is too complex.

Conclusion
All workers using permits must completely understand the reason for, and the requirements of, the permit before work begins.

A safe work permit is an effective tool to help identify and control hazards, prevent injuries, and avoid costly mistakes.

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Working In Adverse Weather Conditions

Temperature extremes, snow, ice, and remote locations all represent significant hazards to workers. These hazards increase when personnel are working alone.

During adverse weather conditions the safest thing to do may sometimes be to avoid all driving. If weather conditions cause road closures workers may become stuck in a particular location for longer than expected.

Pre-planning can help to reduce the potential for an injury or other incident. The following should be considered prior to embarking on any travel.

- All vehicles will be equipped with a basic survival kit including blanket, matches, flares (optional).
- Employees travelling to remote locations should pack; shovel, emergency candles, extra clothes, water, granola bars, nuts, etc.
- Dress appropriately – ensure you have warm boots, and enough layers of clothes.
- Do a pre-trip fuel check of your vehicle. Make sure your vehicle has enough fuel.
- Follow all working alone procedures if you are working alone. See the Westward Working Alone Policy.
- Even when not working alone advise a colleague or supervisor of destination, route, and expected time of return.
- Carry out communication checks before departure and periodically throughout the day. Do this to make sure that your equipment is working properly in the case of an emergency.
- Prior to leaving the job site clean out the company vehicle and send in the required paper work to the Westward office through email.

If weather conditions are such that they make travel hazardous you will not be required to place yourself at risk. Road closures due to weather or accidents may require an extended stay in a location.

In the event that driving is not possible. Notify your supervisor as soon as possible. If you are at home stay at home where it is safe.

If you are on the road then find a safe place to park the vehicle or search for a hotel to spend the night. The use of road flares and emergency flashers should be used in situations of reduced visibility.

Make sure your vehicle is parked on a flat surface away from corners and hills. Pull off to the side of the road as far as possible away from the flow of traffic

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Electrical Storms

When an electrical storm approaches and you are working outside.

Follow the 30/30 rule for lightning. Once lightning strikes count to 30. If you hear thunder before you get to 30 then the lightning is too close. Stop working outdoors and go to a safe location. Stay there until 30 minutes has passed since the last lightning strike.

Working Near High Voltage Electricity

It's a fact, electricity kills! Burns, shock, and electrocution are common hazards that everyone needs to watch out for. Basic safety practices can help you avoid a minor injury or a major catastrophe. Westward understands that although not all of our workers are trained Electricians we must all have a basic understanding of electricity and its hazards.

The purpose of this policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with these safe work practices and procedures for electrical work.

Training and Competency

All Westward employees working near high voltage electricity who are not qualified electrical workers receive awareness training at orientation and as needed after that. Employees are trained in safety related work practices that pertain to their respective job assignments, clearance distances, Lockout Tagout, long dimensional conductor objects clearances, Arc Flash Protection, and conductive materials awareness.

If the work requires proficiency in Electrical Applications, only a trained Electrician will perform the task including constructing, installing, altering, repairing or maintaining electrical equipment.

All Electricians must have the proper combination of experience, knowledge, and education to perform the work required. Workers must be competent when working with high voltage electrical equipment. A competent worker means adequately qualified, suitably trained and with sufficient experience to safely perform work without supervision or with only a minimal degree of supervision. A "qualified electrical worker" will have a journeyman's certificate in the electrician trade or power lineman trade issued pursuant to The Apprenticeship and Trade Certification Act, and includes an apprentice in the trade while under the supervision of a journeyman. Qualified workers are trained on the use of special precautionary techniques, specific PPE requirements (e.g. Arc Flash), insulating & shielding materials, and insulated tools.

All training documents (including Apprentice and Journeyman Certificates) must be on file prior to the commencement of all electrical work.

Hazard Assessment

A pre-job hazard assessment will be conducted to identify and evaluate hazards before entering any high voltage work areas. Safe work practices will be employed

to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts.

If the hazard assessment indicates that workers must be Qualified Electrical Workers to proceed then work must be stopped until the properly qualified workers are present.

Locking Out

Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, Westward will ensure that the electrical conductor or electrical equipment is isolated, locked out, and connected to ground.

A worker must not approach high voltage electrical equipment within the safe limit of approach distance unless the equipment has been de-energized and locked and tagged out.

If parts cannot be de-energized, tagging must be applied. Barriers such as insulated blankets must be used to protect against accidental contact. Arc Flash PPE must be worn.

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Working on Wellsites

There are a range of hazards that may be encounter on a wellsite. Take care to assess the site for hazards before beginning work. Some of these hazards are:

- ***The wellhead may be in an enclosure***. If circumstances require entry into an enclosure be aware that the enclosure can have an explosive mixture built up inside of it from a venting meter or from a leak. Open the building and allow it to ventilate. Test the atmosphere with a gas meter before entering as a sour gas or a sweet gas build-up may exist in the enclosure. Either type is very dangerous. See the H_2S Safe Work Practice for sour gas safety. Sweet gas can build up an explosive atmosphere in the building that only requires a spark to ignite it. A high concentration of sweet gas can purge out the oxygen in the enclosure and this can have fatal consequences for anyone entering the building. A person entering such an atmosphere can fall immediately unconscious, and die in minutes as a result of low oxygen.
- ***The enclosure around a well is sometimes heated***. Such a situation may lead to the enclosure being inhabited by rattlesnakes in cold weather.
- When working on well sites take care to keep your vehicle away from wellhead and piping to avoid damage to that equipment.
- Surface casing vents, or any other valves are not to be opened, unless by operator or within your permitted scope of work.
- Well sites, especially oil sites, have moving equipment. Avoid the area around this moving equipment.
- Avoid the exhaust pipe and area around the exhaust pipe.
- Often the ground surface is uneven due to ruts, gullies, animal tracks, slumping, etc. Take care not to trip, roll your ankles, or fall.
- No smoking on a wellsite.
- Report to the Operator any faulty equipment, odours, leaks, etc.

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Workplace Hazardous Materials Information System (WHMIS)

The purpose of the WHMIS policy is to protect and educate employees and contractors. It is essential that all Westward workers read, understand, and comply with safe work practices and procedures for WHMIS. This program meets the requirements of WHMIS 2015 (with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)).

All hazardous products (as classified in the classes of Schedule II to the Hazardous Products Act) that are used, stored, handled or manufactured at a work site are done so in accordance with WHMIS. Workers who work with or in proximity to a hazardous product have access to all hazard information received from the supplier concerning that hazardous product as well as any further hazard information Westward is aware or ought to be aware concerning the use, storage and handling of that product. Westward may store a hazardous product in the workplace while actively seeking information required by WHMIS regulations.

The WHMIS program, including the education and training component, is reviewed at least annually, or more often if there is a change in work conditions, hazard information or similar. This review must be done in consultation with the health and safety committee or representative, if applicable.

Education and Training

In Canada, if a workplace uses hazardous products, there must be a WHMIS program in place. Workers must be educated and trained so they understand the hazards, and know how to work safely with hazardous products.

WHMIS training, as it pertains to the workplace, is provided to all Westward workers who work with or in proximity to a hazardous product. A worker who works with a hazardous product is any worker who stores, handles, uses or disposes of a hazardous product or who immediately supervises another worker performing these duties. “In proximity” is the area in which the worker’s health and safety could be at risk during storage, handling, use or disposal of the product, maintenance operations or in an emergency situation such as a spill or fire.

Westward WHMIS Education and Training includes:

- The rights and responsibilities of Westward and its workers;
- Previous exposure investigation results, if applicable;
- The information on both the supplier label and workplace label, and what that information means.
- The information on the Safety Data Sheet (SDS) and what that information means.

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- The procedures required for safe use, handling and disposal of a hazardous product.
- Any other procedures required when the product is in a pipe, piping system, vessel, tank car, etc.
- The procedure to follow if the hazardous product may be present in the air and a worker may be exposed.
- All procedures that must be followed in an emergency that involves the hazardous product.
- And the significance of this information.

Refresher education and training is generally required:

- As needed to protect the worker's health and safety.
- If conditions of the workplace have changed.
- If new products are introduced.
- If the products have changed and now have different hazards.
- When new hazard information becomes available.
- If there is new information about safe use, handing, storage or disposal.

All training records are kept in a secure filing cabinet.

Inventory of Hazardous Substances
Westward will keep and maintain a record of all hazardous substances that are used, produced, handled, or stored at the workplace.

Substitution with Safer Products
No person will use a hazardous substance in a workplace where it is reasonably practicable to substitute that substance for a non-hazardous substance. If a product is available that is less hazardous that substance will be used.

Safety Data Sheets (SDS's)
A safety data sheet (SDS) must be prepared for a hazardous product produced or made at a work site and obtained for all commercial products used at a work site. The SDS's must be in a form that is easy to handle and be readily available at a work site (including mobile work sites) to workers who may be exposed to a hazardous product and to the joint work site health and safety committee.

Westward ensures that the most recent safety data sheet for hazardous products are kept at the work site where the product is being used. All SDS must be the most up to date copy available, in English & French (where required).

Every product that is classified as a "hazardous product" under WHMIS that is intended for use, handling or storage in a workplace in Canada must have an SDS.

Supplier Label or Workplace Label
A hazardous product or its container at a work site must have a supplier label or a workplace label on it.

Supplier Label Requirements
A supplier label is provided or affixed (attached) by the supplier and will appear on all hazardous products received at a workplace in Canada. If the hazardous product is always used in the container with the supplier label, no other label is required.

If a supplier label is not attached to a hazardous product then the Westward employee is not to use the material until the supplier gives you an SDS and a supplier label.

A supplier label must appear on all hazardous products received at Westward and contain the following information:

- **Product identifier** - the brand name, chemical name, common name, generic name or trade name of the hazardous product.
- **Initial supplier identifier** – the name, address and telephone number of either the Canadian manufacturer or the Canadian importer*.
- **Pictogram(s)** – hazard symbol within a red "square set on one of its points".
- **Signal word** – a word used to alert the reader to a potential hazard and to indicate the severity of the hazard. *"Danger" is used for high risk hazards, while "Warning" is used for less severe hazards.*
- **Hazard statement(s)** - standardized phrases which describe the nature of the hazard posed by a hazardous product.
- **Precautionary statement(s)** – standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.
- **Supplemental label information** - some supplemental label information is required based on the classification of the product. For example, the label for a mixture containing ingredients with unknown toxicity in amounts higher than or equal to 1% must include a statement indicating the percent of the ingredient or ingredients with unknown toxicity. Labels may also include supplementary information about precautionary actions, hazards not yet included in the GHS, physical state, or route of exposure. This information must not contradict or detract from the standardized information.
- All text in English and French.

Workplace Label Requirements
A workplace label must appear on all hazardous products produced in a workplace or transferred (decanted) to other containers.

These are the minimum requirements for workplace labels:

- Product name (matching the SDS product name).
- Safe handling precautions, may include pictograms or other supplier label information.
- A reference to the SDS (if available).

A supplier label must not be removed, modified or altered on a container in which a hazardous product is received from a supplier if any amount of the hazardous product remains in the container. If the supplier label on a hazardous product or its container is illegible or is removed or detached, Westward will immediately replace the label with another supplier label or a workplace label.

Pipes and Reaction Vessels
Pipes and reaction vessels will be marked using colour coding or placards.

Transferring of a Hazardous Product
When transferring a hazardous product you must ensure that a workplace label is placed on the new container.

When a hazardous material is poured into a container that is going to be used immediately, no label is required.

Hazardous Waste
If a hazardous product is a hazardous waste generated at the work site, Westward ensures that it is stored and handled safely using a combination of any means of identification (labels or signs) and instruction of workers on the safe handling of the hazardous waste. This waste will be sent to an approved facility for disposal.

The workers must be informed by a sign and by training if fugitive emissions are present. The signage must indicate the precautions to be taken in handling them and in case of exposure to them.

Bring Hazardous Products onto site Owned by Others
Prior to bringing hazardous Products onto sites of our Clients we will give them a chance to review and approve the selection of the Product. If our Client does not approve the hazardous product we will need to find an approved substitute product (at our expense).

WHMIS Symbols

WHMIS 1988 Hazard Class	WHMIS 1988 Symbols	WHMIS 2015 Symbol(s)	WHMIS 2015 Hazard Class
A			Gases Under Pressure
B1 to B6			Flammables, Self-Heating, Emit Flammable Gases, Pyrophoric Gases, Liquids & Solids Organic Peroxides
C			Oxidizing Gases, Liquids, Solids
D1			Acute Toxicity - Oral, Dermal, Inhalation
D2			Eye Irritation, Skin Irritation Skin/Respiratory Sensitization, Carcinogenicity Mutagenicity Reproductive Hazards
D3		N/A	N/A
E			Skin/Eye Corrosion Corrosive to Metals
F			Self-Reactive Substances Organic Peroxides
N/A	N/A		Explosive Substances (Explosives are still covered under WHMIS exclusions for now)
N/A	N/A		Aspiration, STOT (Single Exposure, Repeated Exposure)
N/A	N/A	N/A	Combustible Dusts
N/A	N/A	N/A	Simple Asphyxiants
N/A	N/A	Use appropriate symbol	Physical Hazards Not Otherwise Classified, Health Hazards Not Otherwise Classified

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Section 10 GUIDANCE DOCUMENTS

The following guidance documents have been developed with the input of involved workers. They are general documents that may be used for the creation of procedures. The following guidance documents have been developed:

- Confined Space Entry
- Excavating and Trenching
- Hand Signals for Directing Traffic
- Vehicle Trailers
- Electrical Demolition
- Electrical Safety
  - Definitions
  - Hazard Groups
  - Hazard Locations
  - Electrical Injuries
- Electrical Substations-Panels & Gates
- Electrical Limits of Approach
- Electrical Grounding & Bonding
- Electrical Energized Line Safety
- Electrical Contact
- Electrical Clearance
- Electric Tool Safety
- Electric Drill Safety
- Angle Grinders
- Barricades & Barriers
- Pulling Wire with Fish Tape
- Megger Testing
- Lock Out Tag Out
- Installation: Data/Voice/Ethernet Cable
- Installation of Mineral Insulated Heating Cable
- RIGID Pipe and Bolt Threading Machine

Confined Space Entry

PURPOSE:

To put procedures in place for Confined Space Entry.

See Flow chart on the last page to help determine if the space is a confined space.

DEFINITIONS:

Confined Space

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

Level 1 Confined Space: A confined space that is Immediately Dangerous to Life or Health (IDLH). This includes, but is not necessarily limited to, a confined space characterized by an oxygen deficiency, flammable (explosive) atmosphere and/or concentrations of toxic substances.

A confined space will be considered Level 1 if the entry is either the first or initial entry or any of the following apply:

1) The hazards in the confined space or in its proximity are either not known or have not been determined.
2) The hazards in the confined space include one or more of the following:
   - Oxygen concentration is less than 19.5% or more than 23.0% by volume
   - Explosive or flammable atmosphere between 10% and 20% of the Lower explosive limit (LEL)
   - The area atmosphere exceeds the protective limits of air-purifier respiratory equipment

The following controls MUST be put in place for a Level 1 classified area:

- An approved hazard assessment
- An effective means of communication between the monitor and entry workers and the emergency response representative
- Supplied breathing air available and worn
- Continuous atmospheric testing

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- All entrants/monitors must be trained to use supplied breathing air equipment
- PPE as per the approved hazard assessment
- A qualified Confined Space Monitor in attendance at all times
- A specific, documented Rescue Plan which has been developed, reviewed and approved by the equipment owner and the Emergency Response Representative
- A valid Confined Space Entry Permit
- A valid Level One Entry Tag at each entrance
- A documented Evacuation Plan
- Confined Space signage as per the Level of Entry Classification

Note: Any time a Level 1 entrance is left unattended, it MUST be barricaded physically and a “DANGER DO NOT ENTER” sign must be hung at the entrance.

For Level 1 Confined Space Entry, additional training to what is shown above may be required depending on hazard assessments and/or work specific requirements (e.g. gas detection, supplied breathing air apparatus, air purifying respirator, fall protection, etc)

Level 2 Confined Space: a confined space hat is not Immediately Dangerous to Life or Health but has the potential for causing injury and illness if preventative measures are not used. A confined space will be considered Level 2 if all identified hazards are controlled and the following applies:

- Oxygen concentration is between 19.5% and 23.0% by volume, and
- Explosive (flammable) atmosphere greater than 1% and less than 10% LEL, or
- Concentration of toxic substances exceeds 50% of the occupational exposure limit (OEL).

The following controls MUST be put in place for a level 2 classified area:

- Approved hazard assessment
- Effective means of communication between the monitor and entry workers and the emergency response representative
- A qualified Confined Space Monitor in attendance at all times
- A valid confined space entry permit
- A valid safe entry tag hung at each entrance
- A documented Evacuation Plan
- A Valid Rescue Plan
- PPE as per the approved hazard assessment

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- Continuous atmospheric testing if there is a potential for the atmosphere to change unpredictably
- Confined Space signage as per the Level of Entry Classification

For Level 2 Confined Space Entry, additional training to what is stated above may be required depending on hazard assessments and/or work specific-requirements (e.g. gas detection, supplied breathing air apparatus, air purifying respirator, fall protection, etc.)

Level 3 Confined Space: a confined space in which the potential danger to life or health would not require any special modifications of the work procedures.

A confined space will be considered Level 3 if all identified hazards are controlled, the potential for change is unlikely, and ALL of the following apply:

- Oxygen concentration is between 19.5 and 23.0% by volume
- Concentration of explosive gasses is less than 1% of the LEL
- Airborne concentration of toxic substances is less than 50% of the occupational exposure limit (OEL)

The following controls MUST be put in place for a Level 3 Classified area:

- Approved hazard assessment
- Effective means of communication between a competent worker (if monitor is not required) and entry workers and the emergency response representative
- A qualified confined space monitor may (based on the hazard assessment) be required
- A valid confined space entry permit
- A valid safe entry tag at each entrance
- A documented evacuation plan
- A valid rescue plan
- PPE as per the approved hazard assessment
- Confined space signage as per the level of entry classification

NOTE: If the hazard assessment determines that a confined space monitor is NOT required at the point of entry, a competent worker must be designated to maintain communication with the other workers in a confined space (e.g. co-worker, buddy system). The entry log MUST still be maintained.

PPE REQUIRED:
Boots - steel toe and shank, appropriate soles

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Clothing - long pants
Clothing - long sleeve shirt
Gloves - work gloves
Hard hat
Hearing protection
Safety glasses
Self-contained breathing apparatus (If required by Gas Test)
Additional PPE determined by Site Policy and Hazard Assessment.

TRAINING REQUIRMENTS:

Confined space – Confined Space Monitor, Confined space Entrants, HSE and Supervision.
All subcontractors required to enter must be certified in confined space entry as well.
First aid/CPR – to the requirements of OH&S standards and Westwards HSE manual.
Hydrogen sulfide safety – Whenever worksite is in an H2S area

POSSIBLE PHYSICAL HAZARDS:

Automobiles and light trucks
Cold weather
Congested working area
Inclement weather - lightning, high wind, snow, rain, sleet
Low lighting
Noise (Sound Pressure Level), dBA
Overhead utilities (electrical, gas, water, etc.)
Repetitive motion or other ergonomic concerns
Sharp objects
Slippery surfaces (water, ice, snow)
Slips/trips/falls
Unforeseen hazards

POTENTIAL CONSEQUENCES:

Awkward or static position
Caught in or between a stationary/moving object
Collision between moving vehicles and/or equipment
Cuts and abrasions
Excessive lifting, twisting, pushing, pulling, reaching, or bending
Exposure to excessive noise (damage to hearing)

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Falling (< 6 feet), tripping, or slipping
Fatigue
Fungal infections caused by excessive wetness
Hypothermia
Penetration by sharp object
Struck by moving vehicle or equipment
Struck by uncontrolled pressure release
Suffocation

POSSIBLE CHEMICAL HAZARDS

HYDROGEN SULFIDE
(CAS Registry Number: 7783-06-4) A colorless gas having a strong odor of rotten eggs. Boiling point -60.2°C. Shipped as a liquid confined under its own vapor pressure. Density (liquid) 8.3 lb / gal. Contact with the unconfined liquid can cause frostbite by evaporative cooling. Gas is very toxic by inhalation. Fatigues the sense of smell which cannot be counted on to warn of the continued presence of the gas. Prolonged exposure of closed containers to heat may result in their violent rupturing and rocketing.

Exposure to very high concentrations causes immediate death. Also death or permanent injury may occur after very short exposure to small quantities. It acts directly upon the nervous system resulting in paralysis of respiratory centers. (EPA, 1998)

Employers Responsibilities:

a. Appoint a competent person to enter the confined space
b. Have records of Confined Space training certification

Supervisor Responsibilities:

a. Obtaining a confined space entry permit from the site permitting office and must follow all site requirements pertaining to confined spaces.
b. Obtaining the Westward confined space entry logs from the safety department and distributing to the monitors.
c. Ensuring the requirement of both permits is complied with.
d. Ensuring that the retrieval system is in place and in good condition.
e. Ensuring that records are kept of all personnel making entries to confined spaces.
f. Appointing an Attendant at each entry point.

Confined Space Monitor:

a. *Must possess a confined space monitor certification card*

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b. Keep track of each person entering and leaving the confined space on the confined space log sheet.
c. Keep a badge or piece of identification of each person in the confined space
d. Control access to the space, permitting only those authorized to enter.
e. Ensure the space is evacuated in the event of an emergency.
f. Maintain the barriers around the confined space and ensure that the confined space is properly tagged / marked.
g. Must have a reliable means of communication with personnel in the confined space at all times.
h. See Emergency Response

PROCEDURE:

1) **MOBILIZE TO SITE**
   a. Attend morning Tool box Talk
   b. Mobilize to site following the Westward safe Job Procedure on Mobilization.
   c. Walk work area before commencing work
   d. Complete a Field Level Hazard Assessment
   e. Obtain a Confined Space Entry Permit if it is a site requirement.
   f. Have all 4 atmospheres tested (H2S, O2, CO, LEL) by a qualified individual prior to entering the confined space. (Be sure to test the entrance way as well as the interior of the confined space. It is recommended to use an extension pole to test the interior. Be mindful of water in the confined space where H2S could possibly pool. Stir up any water and test prior to entering.)
   g. The O2 work safe levels are 19.5-23.0% the normal level is 20.9%
   h. Determine the Level of confined space i.e.(level 1, level 2, level 3)
   i. Set up Ventilation in the space using a fan to keep the air flowing
   j. Complete daily equipment inspections
   k. Setup any signage or barricades indicating hazards presented by the work
   l. Follow the Highway traffic act and Hands Free driving rules on and off site
   m. Continuous monitoring while under the trailer

2) **ENTERING THE CONFINED SPACE**
   a. A confined space monitor must be present at all times and must not leave their monitoring position for any reason until relieved by a qualified and competent person or until all personnel are out of the confined space.
   b. Personal H2S detectors are mandatory in areas where H2S may be present

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c. Body harness and rescue lines while in the confined space Level 2 or greater are mandatory
d. Maintain signage and Red tape around the confined space if left un-guarded

3) **LEAVING A CONFINED SPACE WITH HAZARDS STILL REMAINING**
   a. Put up “Confined Space” and “Do Not Enter” signage and red tape across all entrances

4) **De-Mobilize**
   a. Assess work area prior to completing the job
   b. Remove all tools, equipment and material
   c. Close out confined space permit
   d. Take down any signage or barricades indicating hazards presented by the work
   e. Follow the Highway traffic act and Hands Free driving rules on and off site

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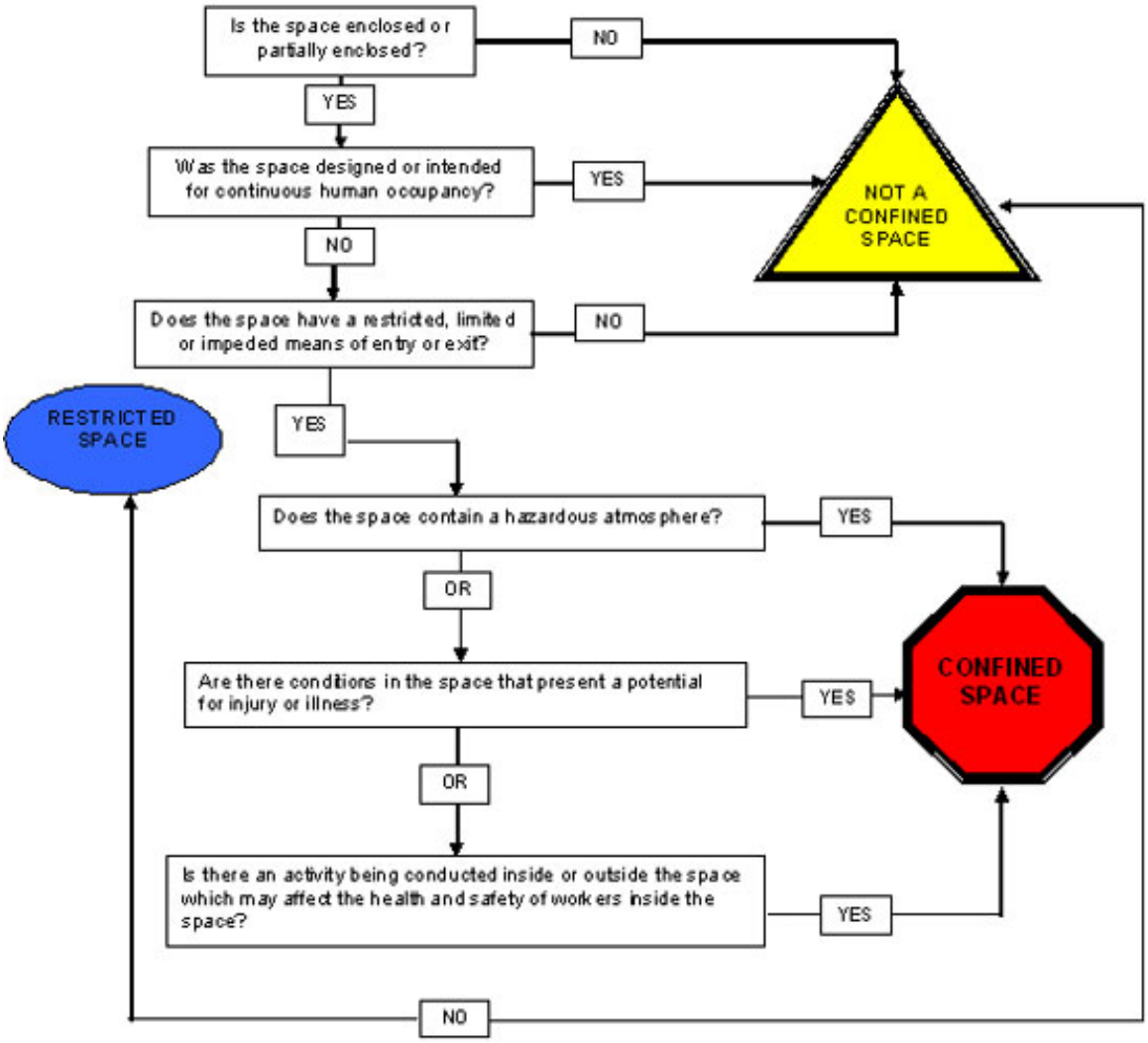
Confined Space?



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Excavating and Trenching

PURPOSE:

To put procedures in place for Excavating and Trenching for Wire Installations.

PHYSICAL HAZARDS THAT MAY BE PRESENT:

Automobiles and light trucks
Cold weather
Excavations/trenches
Hand tools
Inclement weather - lightning, high wind, snow, rain, sleet
Mini-Excavator
Noise (Sound Pressure Level), dB
Power tools (electric, gas, hydraulic, pneumatic)
Slips/trips/falls
Unforeseen hazards
Utilities - underground (power, natural gas, water, etc.)
Worker's unfamiliar with job scope

POTENTIAL HAZARDS:

Caught in or between a stationary/moving object
Collision between moving vehicles and/or equipment
Electrocution or shock
Excessive lifting, twisting, pushing, pulling, reaching, or bending
Falling (< 6 feet), tripping, or slipping
Overturning equipment

ADMINISTRATIVE CONTROLS:

Competent person
Drug and alcohol policy
F.L.R.A.
Inspections (pre-job) - work areas, equipment, tools, etc.
Lifting techniques (safe lifting)
Precautionary tape or barriers
Safety meeting (pre-job)

ENGINEERING CONTROLS

Machinery guarding
Roll-over protection

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REQUIRED PPE:

Boots - steel toe and shank, appropriate soles
Clothing - long pants
Clothing - long sleeve shirt
Gloves - work gloves
Hard hat
Hearing protection
High visibility stripes/vest
Safety glasses

PRE-MOBILIZATION

1) Have a pre-Job safety meeting and inform all workers of the scope of work and possible safety hazards
2) Review certifications
3) Review the permits (To be supplied by the customer)

PROCEDURE:

1) **MOBILIZE TO SITE**
   - **a.** Follow the Highway traffic act and safe driving practices on the way to site
   - **b.** Do a site walk-through and complete a Hazard Assessment upon arrival
   - **c.** Complete a F.L.R.A. card daily and review throughout the day. (Be sure to include the emergency contact number and emergency meeting point. Sign off the FLRA at the end of each day)
   - **d.** Prepare the jobsite for a safe excavation (i.e. perform housekeeping, secure the area with caution tape or barricades to mark the trenching area.)
   - **e.** Do a pre-inspection of all power tools, hand tools and mini excavator to be used.
   - **f.** Document the mini-hoe inspection.

2) **DIG TRENCH**
   - **a.** Maintain a secured area around the mini-excavator
   - **b.** Ear protection may be required on the excavator depending on the noise level. Please have ear protection on hand.
   - **c.** Dress appropriately for changing weather conditions.

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d. Use a spotter or hand shovel to dig in tight areas where the excavator cannot go or may come into contact with another person or piece of equipment.
e. Maintain eye contact with the excavator operator. (If you can't see his eyes he can't see you...)
f. Use hand signals and follow safe approach procedures to moving equipment. When approaching the excavator the operator must be aware of your presence, must ground his bucket and give permission to enter the swing zone.

3) INSTALL PIPE OR COUNDUIT IN THE TRENCH

a. Review your FLRA. Are there any new hazards?
b. Prepare a proper access/egress to the trench if entering is necessary

4) BACKFILL THE TRENCH

a. Maintain the secured area around the excavation
b. Use ear protection
c. P.P.E.
d. Good Housekeeping

5) DEMOBILIZATION

a. Assess the work area prior to de-mobilization
b. Do a total clean-up of the work area
c. Follow good house-keeping and driving procedures

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Hand Signals for Directing Traffic

GENERAL

Drivers are responsible for the safe operation and movement of the vehicle. Drivers shall not permit anyone to ride on the running boards, fenders of any part of the vehicle except on the seats provided.

VEHICLE MOVEMENT

Whenever possible, the vehicle shall be positioned so as to minimize movement in reverse. Extreme caution shall be exercised when moving a vehicle. If another individual is available, they should be utilized to guide the driver.

SAFETY PRECAUTIONS

The guide must always be fully visible to the driver and if not fully visible the driver should stop. Wear high visibility clothing (i.e. reflective striping).

ACTIONS

HAZARD ASSESMENT

Prior to moving:

- Plan the move to reduce backing
- Conduct a visual inspection of the desired path
- The driver and the guide have a responsibility to identify potential hazards in the vehicles path, such as, overhead lines, ruts, wellhead, personnel, etc.
- Hazard Control Measures:
- Ensure driver and guide understand the signals to be used
- ensure driver and guide understand the rules to be used
- ensure driver and guide are both aware of hazards
- plan the movement to control or eliminate the hazards

GENERAL

When backing, drivers should:

- Where possible, always use a guide
- Stop backing up immediately if;
    - the guide is not fully visible
    - visual contact is lost with other workers,
    - an emergency stop signal is received from anyone in the area
    - Resume backing only after visual contact is restored with the guide or workers on foot
- Use a co-worker as a guide, and
- Sound horn before starting to move the vehicle
- Stop all vehicle movement while the guide is repositioning.

Other Workers should:

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- Remember large vehicles have significant blind spots
- Remain clear of the vehicle unless needed to act as a guide, and
- Never cross or step behind the vehicle when it is backing or when its backup signals are on.

Guides should:

- Remain visible to the driver at all times
- Wear high visibility clothing
- Establish and maintain eye contact with the driver
- Position yourself to maintain as clear a view as possible of the intended path of the vehicle
- Stay clear of the vehicle's path
- Avoid walking backward
- Use standard hand signals to communicate with the driver
- Be sure that no one is riding on the outside of the vehicle before signaling the driver to begin moving
- Immediately signal the driver to stop if any person or object enters the vehicles intended path
- Signal the driver to stop if the guide must change positions; the guide should then reposition and when ready signal the driver to continue
- Use distinct and deliberate body movements
- Be aware of blind spots

No one should cross or step behind a vehicle when the backup warning device is activated.

SIGNALS

When it's necessary to move a vehicle, it is important that everyone understands exactly what's being done. This will ensure the safety of everyone involved in the operation. There should be no confusion about the hand signals to be used.

Make sure workers involved understand who is directing the move and the procedures to be followed. Review all the hazards associated with this particular move and the precautions taken to minimize or eliminate them.

It is also very important to designate one guide so there is no confusion in the signaling procedures.

The following represent seven (7) basic signals to assist in vehicle repositioning.

Purpose and Action Descriptions

The driver and the guide share responsibility for safe vehicle movement during repositioning. The guide takes a leadership role during repositioning

PROCEED SLOWLY

FORWARD

Always face palms
in direction of desired travel.

BACKWARD

Then bend both arms repeatedly
toward head and chest,
and then extend.

TURNS

Point one arm
to indicate
the direction to turn.

Bend monitoring arm
repeatedly toward head to
indicate continued turning.

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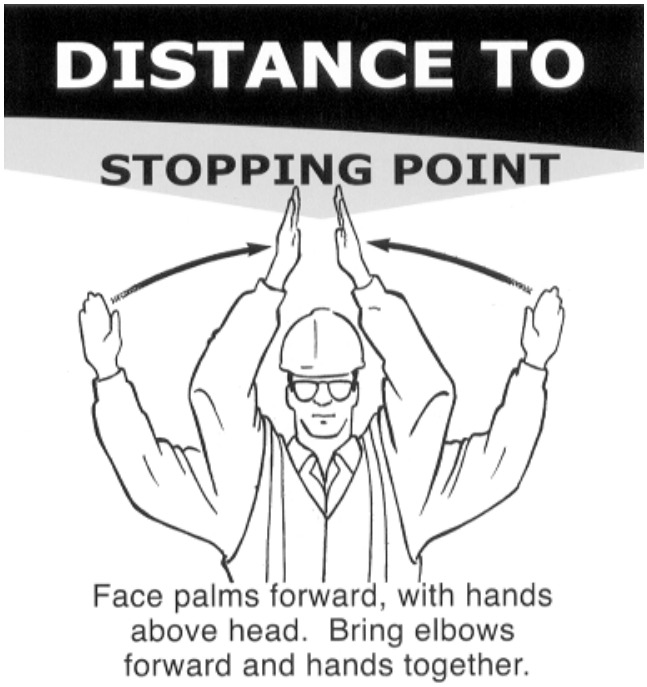
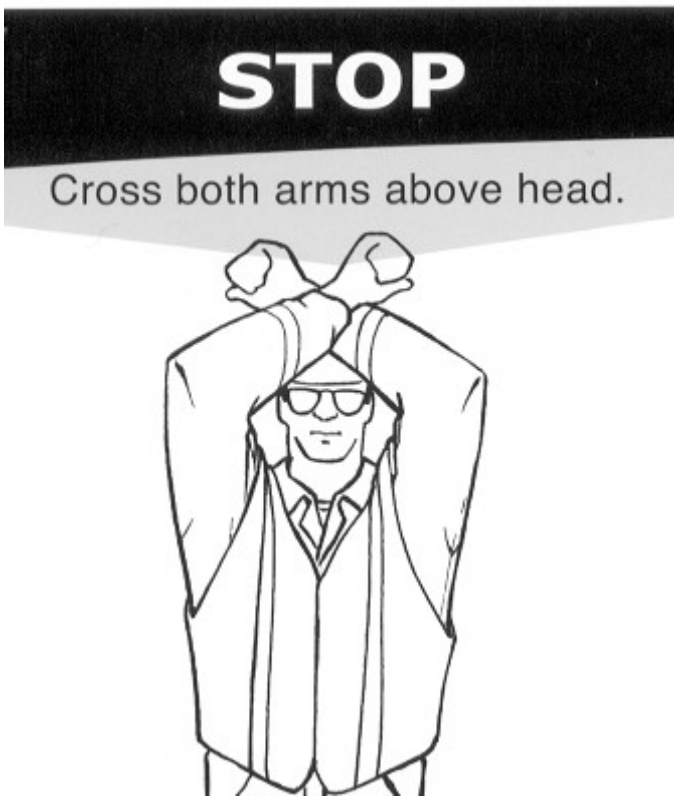
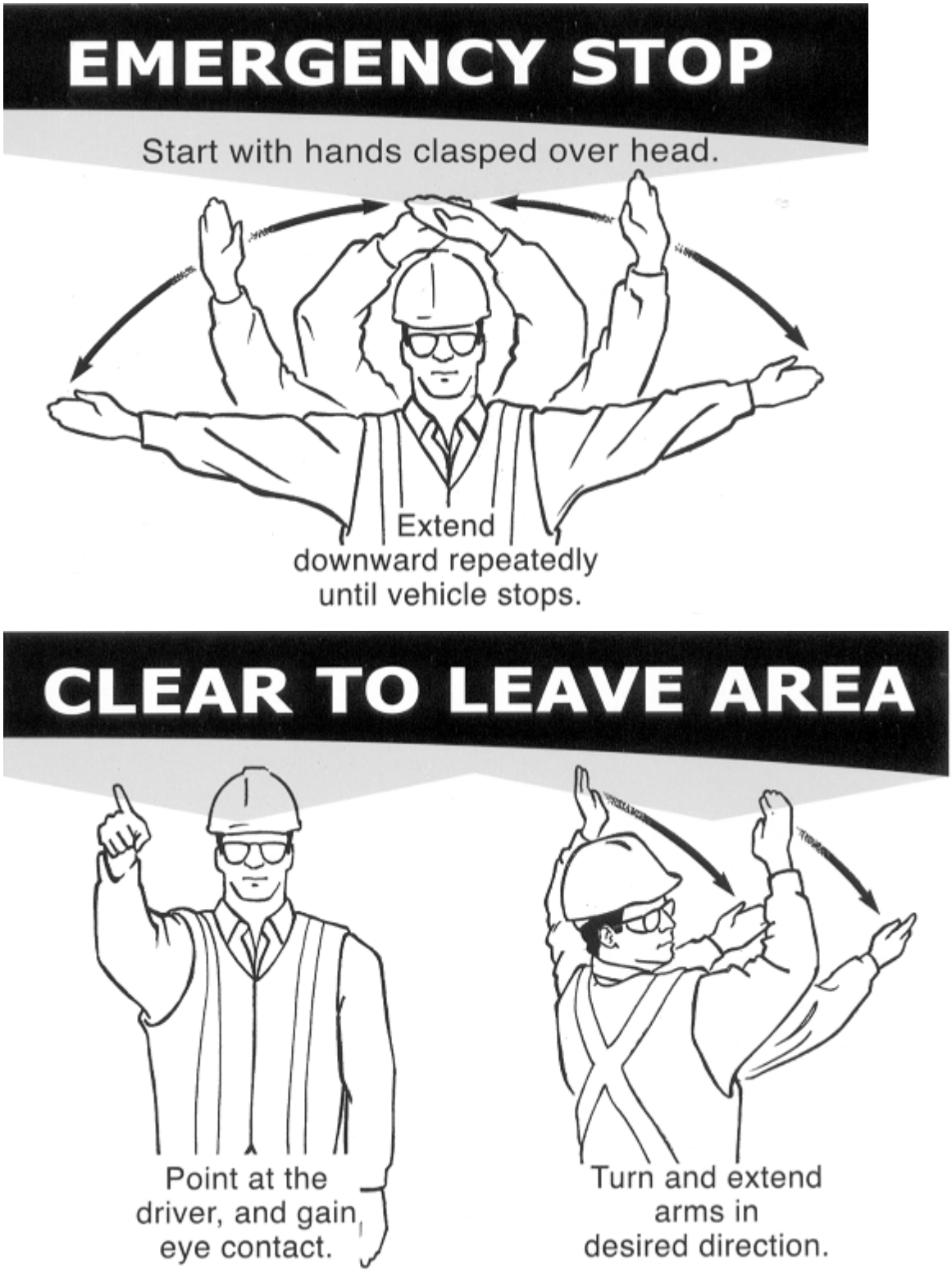

DISTANCE TO
STOPPING POINT
Face palms forward, with hands above head. Bring elbows forward and hands together.


STOP
Cross both arms above head.



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OTHER SAFETY CONSIDERATIONS

- Consider the suitability of providing back-up warning devices for vehicles
- Minimize foot traffic
- If you must have workers and vehicles working in the same area, consider establishing a traffic control system

REMEMBER

- Wear high visibility clothing
- Be visible to the driver
- Maintain eye contact with driver.
- Protect yourself, be aware of crush points
- Driver: If you lose sight of the Guide – STOP.

BACKING UP IF NO GUIDE IS AVAILABLE

- Check the intended path of the vehicle
- Back-up immediately - DO NOT trust the scene to remain unchanged
- Sound your horn before starting to move
- Back up slowly
- Place a marker a safe distance behind, then back to it
- As you back up, check both side mirrors
- Avoid backing up on the blind side of the vehicle
- Do not back up further than necessary

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Vehicle Trailers

PURPOSE:

To inform Westward employees on the proper procedures and care for towing a trailer.

Towing a trailer creates additional hazards for the driver of company vehicles. Stopping distances are increased and the maneuverability is reduced significantly. In order to minimize the risk of towing trailers a hazard assessment shall be performed by the driver prior to towing any loads.

DEFINITIONS:

Chocking – To place a block or wedge placed under a wheel, to keep it from moving.

GENERAL

This procedure is applicable to all employees assigned to construction, maintenance, testing & commissioning and or service work. It also applies to all sub-contractors, lower tier subcontractors, vendors or anyone else who may be involved with execution of pertinent work. The
following rules are mandatory, and apply to all personnel regardless of discipline. Improper use
of, or non-compliance with, this procedure will result in disciplinary action.

JOB PLANNING:

Regardless of the size or the complexity of a job, they will all require planning, some with little
detail, others needing substantial research and layout. It is important to be fully organized, in
order for the job to be completed efficiently and safely with in the scheduled time frames.
Properly planned jobs with well-trained workers undoubtedly will be safer than those with both
inferior planning and lack of worker awareness.

JOB PROCEDURE:

1. Communication between the employees and supervision to determine the route, safety concerns and requirements of the task. Arrange a pre-job meeting if necessary.
2. Complete a pre-job hazard assessment outlining all safety concerns.

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Make sure that the trailer weight is compliant with the capacity of the truck and hitch.

3. Gather together all required Personal Protective Equipment according to the Westward PPE policy.
4. Inspect the trailer hitch for damage. Make sure that all the required pins are available and that the trailer light receptacle is in good repair.
5. Perform a Vehicle inspection checking for lights, tire pressure and condition of truck and tire condition of the Trailer.
6. Back the truck up to the trailer using safe practices for backing up. A spotter should be used.

See Westward Safe Work Practice: Backing Up and Safe Job Procedure: Hand Signals for Directing Traffic.

7. Do not overload the trailer.
8. The maximum trailer weight should not exceed the Gross Vehicle Weight (GVWR) of the trailer. This includes the weight of the trailer itself as well as all equipment and material inside.
9. When the trailer is disconnected from the vehicle the wheels must be chocked by placing a chock tightly behind and square to the tire. The trailer is best to be chock in the direction of the slope or grade.
10. If your trailer is equipped with an ESCO breakaway switch it will have a lanyard and pin system between the truck and trailer.
    In the event of a possible separation of the trailer while on the road the pin will be pulled and a battery on the trailer will engage the breaks.
11. Push the pin all of the way in, until the flange on the pin is flush with the switch. Be sure that the brakes have released.
12. Do not let the lanyard cable drag on the ground. Fasten the cable to the tow frame. **Not the safety chains or the tow ball.**
13. Avoid Sharp turns or excessive speed while driving. Sharp turns can cause strong forces to be exerted on the tongue of the trailer and hitch system and may cause a roll over.
14. Observe the posted speed limits always. A reduction in speed is required to account for the increased stopping distance and loss of maneuverability created by the additional weight.
    Be mindful of the road conditions while toeing as these will also have an effect.

Loading a Trailer

a) Whenever possible, load and unload the trailer while it is attached to a vehicle.

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When the trailer is not attached to a towing vehicle, use a jack on the front and place
chocks under the rear to prevent damage.

b) Use proper blocks that are large enough and able to support the necessary weight.
Always chock the wheels when the trailer is not attached to a vehicle.

c) Ensure all equipment, inside trailer, is secured and doors closed and locked.

Weight Distribution

Distribute the weight of the trailer to have approximately 10% of the GVWR of the trailer on the tongue of the trailer. Proper distribution of weight will help prevent the trailer from fishtailing which could result in a serious injury and/or equipment damage.

Hooking up a Trailer

1) Raise trailer tongue above the hitch ball.
2) Position actuator ball socket above ball.
3) Hold release handle in open position.
4) Lower trailer tongue until ball rests in ball-socket.
5) Close release handle.
6) Connect safety pins.
7) Connect the trailer lights
8) Connect the ESCO break-away switch if your trailer is equipped.
9) Fully raise tongue jack and secure for traveling
10) Check lights.
11) Always use safety chains when towing.
12) Cross safety chains under coupling to prevent tongue from dropping to the ground. ***(See Diagram 1 below)***
13) Allow only enough slack for tight turns.
14) Do not let safety chains drag on the ground. Twist safety chains equally from hook ends
to remove any slack.

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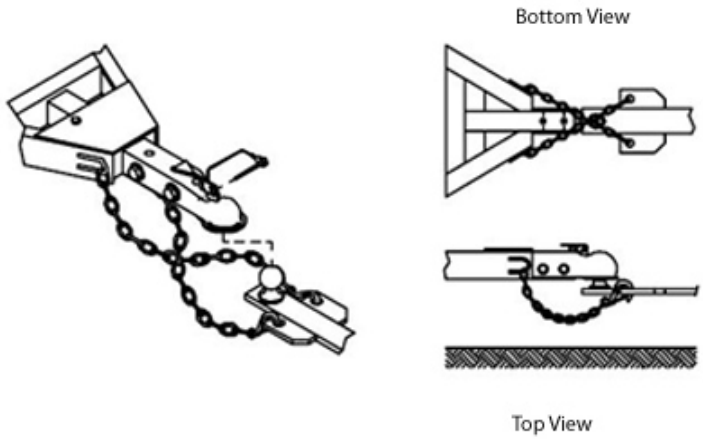
Diagram 1:



Speed Reduction Table:

CONDITIONS	EMPTY	2000 LBS	MAX WEIGHTS LBS.
Clear and Dry	< or = to Posted Speed Limit	< or = to Posted Speed Limit	Reduce speed 10 km/hr
Wet	Reduce Speed 10 km/hr	Reduce Speed 10 km/hr	Reduce Speed 10 km/hr
Wet and Rainy	Reduce Speed 10 km/hr	Reduce Speed 10 km/hr	Reduce Speed 20 km/hr
Snow and Ice Covered	Reduce Speed 20 km/hr	Reduce Speed 20 km/hr	Reduce Speed 35 km/hr
Gravel	Reduce Speed 30 km/hr	Reduce Speed 30 km/hr	Reduce Speed 40 km/hr
Mining	Reduce Speed 20 km/hr	Reduce Speed 20 km/hr	Reduce Speed 25 km/hr
Night and Poor Visibility	Reduce Speed 10 km/hr	Reduce Speed 10 km/hr	Reduce Speed 15 km/hr
Very Poor Visibility	Reduce Speed 20 km/hr	Reduce Speed 20 km/hr	Reduce Speed 25 km/hr

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Backing Up a Trailer

1. Use a spotter when Available.
   See Westward Safe Job Procedure: Hand Signals for Directing Traffic
2. Inspect the area where the trailer will be backing into. Get out of the vehicle and perform a circle check.
3. Back up slowly, walking speed.
4. Turn the steering wheel to the right to go left, and left to go right.
5. Use small corrections of the steering wheel when backing up to avoid a jackknife.
   When backing up it is easiest to back in so that the trailer is visible out the left mirror of your vehicle. This is called using your good side of the vehicle and offers better visibility then backing in on the right side or Blind Side as it is sometimes referred to.
6. Always double check that the trailer is locked up and secure whenever it is being stored.

Unhooking a Trailer

1. Inspect the area and ensure that the trailer is on flat level ground and out of the path of other vehicles or mobile equipment
2. Place wheel chocks under the back tires of the trailer to prevent it from moving or rolling
3. Lower the jack of the trailer so that it is pressed snugly to the ground but does not raise the trailer
4. Unhook the ball hitch or pinto hitch of the trailer and remove the tow chains and lighting plug.
5. Use the trailer jack to raise the tongue of the trailer so that the hitch is 1-2” above the hitch of the truck.
6. Perform an inspection to make sure that all chains and connections are removed between the truck and trailer and then drive the truck forward leaving the trailer behind.

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Electrical/Mechanical Demolition

PURPOSE

To ensure the safety of those people performing work on, near, or around the existence or possible existence of energized and or de-energized electrical equipment. To ensure when work is being done involving demolition around the existence or possible existence of energy, that procedures are followed consistently and all regulations are strictly adhered to.

OBJECTIVE

To provide a procedure for determining, identifying and verifying the safe removal of electrical equipment, apparatus and raceway for workers conducting demolition work.

DEFINITIONS

DEMOLITION - The act or process of wrecking, destroying or removing redundant equipment, apparatus and / or materials.

IDENTIFY - To ascertain the origin, nature, or definitive characteristics of.

RACEWAY - A pipe, conduit, tube or channel (tray) for conveying electric wires or cable.

GENERAL

Sub-contractors, lower tier sub-contractors, vendors or anyone else who may be involved with execution of pertinent work. The following rules are mandatory, and apply to all personnel regardless of discipline. Improper use of, or non-compliance with, this procedure may result in disciplinary action up to and including termination.

JOB PLANNING

Regardless of the size or the complexity of a job, they will all require planning. Some with little detail, others needing substantial research and layout. It is important to be fully organized, in order for the job to be completed efficiently and safely within the scheduled time frames. Properly planned jobs with well-trained workers undoubtedly will be safer than those with both inferior planning and lack of worker awareness.

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1) Both the supervisor and the individual(s) conducting the work shall become familiar with the details of the work involved and, where necessary, prepare a detailed job plan including work procedures. The supervisor is responsible to ensure that plans and procedures are based on accurate up-to-date information.

2) Arrange, when necessary, pre-job meetings to review job details with:

a) Client/Owner

b) Subcontractors

c) Utility Supervisor

d) Designated Job Foreman

e) Convey information regarding the identification of the closest First Aid Station, evacuation area (muster points), and emergency meeting points.

f) Rallying of all Personal Protective Equipment required to do the job safely and efficiently. *A ready supply shall be made available.

g) Obtain and ensure integrity of fixed or portable lighting equipment if deemed necessary.

DEMOLITION

Task

1) All applicable orientations and required training (i.e. fall protection, respiratory, AWP, etc) shall be attained.

2) Permit shall be reviewed with demolition crew and any and all persons affected.

3) This Safe Work Procedure shall be reviewed with demolition crew and any and all persons affected.

4) Persons conducting the work shall complete Take 5 Work Assessment cards (FLHA's) at job location to identify any not mentioned hazards. The worker must be continually aware of their worksite and the changing conditions.

5) If workers are unclear or concerned about any aspect of the task, stop work until workers are confident and clear with what must take place

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TASK

1) The Isolation/De-Commissioning Procedure in Westward's Quality Assurance Program will be included in the Demolition Job's Inspection and Test Plan. This includes but is not limited to: verification of power supply and/or signal source for end device and/or equipment being removed with customer; verification of isolation procedure of power supply and/or signal source with customer; verification that power supply and/or signal source is locked out, tagged, and jumpers installed where applicable.

2) Work shall be performed from permanent platforms or aerial work platforms. The use of ladders or the practice of climbing structure shall be avoided at all times.

3) If the removal location is above ground, the area shall be made safe, via the use of flagging, barricades and/or a man watch when other means of securing the area are not available.

4) All raceways entering electrical equipment and/or apparatus shall be removed. Extra care shall

a) All wire and cable within raceways shall be removed prior to raceway removal.

b) Rigid conduit will be unscrewed, backed out, where possible and practical in intervals no greater than ten feet.

c) Tubing or coupled conduit shall be cut or uncoupled, where possible and practical in intervals no greater than ten feet.

d) Channel (tray) shall be dismantled in lengths no greater than manufactured lengths (10 or 20 feet).

5) Workers shall be in teams of two, as a minimum, and confirmation of removal location shall be agreed upon between both workers conducting the task. Frontline supervision shall be present for initial removal and initial cuts. When instruction / direction is clearly understood, intermittent supervision will occur.

6) If the demolition involves more than the disconnecting method, the frontline supervision and workers executing the work must agree upon removal. The method will depend on many factors with the preference being to avoid cutting. Cut points may change to facilitate rigging out and removal, due to scaffold changes, obstructions etc. All changes shall be logged by front line supervision.

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7) Manually lifting involves another risk, use the correct lifting techniques and get mechanical help when required.

8) A laydown area shall be provided to efficiently store re-usable materials to avoid refuge. All generated waste shall be discarded in waste bins provided.

9) Extra caution must be taken when suspect material (i.e. mouse droppings, chemicals) are present.

Electrical Safety

Definitions

BARRIER: A physical obstruction which is defined to prevent contact with energized lines or equipment.

BONDING: The electrical interconnecting of metallic parts of conductors in order to maintain them at the same potential (electrical charge).

CIRCUIT: Conductor or system of conductors through which an electric current is intended to flow.

CIRCUIT BREAKER: An over-current protection device with a bi-metal strip that breaks the circuit when it detects an amperage overload greater than the tested value.

CONDUCTOR: Material, usually in the form of wire, cable or bus that is suitable for carrying an electric current.

EFFECTIVELY GROUNDED: Intentionally connected to earth through a ground connection to prevent the build-up of voltages which may result in undue hazard.

ENCLOSED: Surrounded by protective barrier to prevent accidental contact of a person with live or moving parts.

ENERGIZED: Electrically connected to a source of potential difference or electrically charged so as to have a potential difference from that of the earth.

EXPOSED CIRCUIT: A position such that in case of failure of supports or insulation, live electrical contact may result.

EXPOSED EQUIPMENT: Object of device that can be inadvertently touched or approached nearer than a safe distance.

FUSE: A metal strip that melts when the amperage is higher than the tested amperage value.

GROUND FAULT CIRCUIT INTERRUPTER: A device that disconnects the circuit within **1/40th** of a second when it detects an “electrical leak” across the wires.

GUARD or LOCK: A device to prevent contact with open electrical wires.

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GUARANTEE OF ISOLATION: Line/substation is open between all points of supply and "isolated". Switching points will not be closed until a GUARANTEE OF ISOLATION has been released. Line is open, but not grounded.

HIGH VOLTAGE: Voltage in excess of 750 V to 500 Kv phase to phase.

INSULATION: A non-conductive barrier to prevent electricity from contacting people or objects.

ISOLATED: Sources of electrical energy have been disconnected.

LIGHTNING ARRESTOR: A device that directs lightning directly to the ground.

LIVE LINE MAINTENANCE: Work on any energized circuit other than sectionalizing, switching or fusing.

LOW VOLTAGE: Secondary voltage which included voltage up to 750 V phase to phase.

PLUG COVERS: A device to prevent children from sticking metal objects into an electrical socket.

PROCEDURES: Following proper procedures saves many lives.

QUALIFIED UTILITY EMPLOYEE: A power line or station utility employee trained and experienced to work safely on energized electrical equipment or lines.

SIGN: A device used to warn persons of high voltages.

SURGE PROTECTOR: A device to protect equipment from high voltages.

UTILITY EMPLOYEE: A person trained and experienced to recognize electrical hazards and to work safely around energized electrical equipment or lines.

VOLTAGE: The potential difference between any two conductors or between a conductor and ground.

WIRE CAGE: A protective device installed on lamps to prevent breakage.

Hazard Groups

Depending on the flammable environment the electrical equipment may be exposed to, **it may be** required to be "RATED" for one of the following **Groups of**

flammable materials. **The rating ensures a standard of safety** around flammable vapours.

GASES:

GROUP A (acetylene)
Maximum equipment temperature = 280°C
Required ignition energy 0.01 millijoules
Explosive range: (LEL = 2.8%, UEL = 80%)

GROUP B (hydrogen, butadiene, ethylene oxide)
Maximum equipment temperature = 280°C
Required ignition energy 0.02 millijoules
Explosive range: (LEL = 4%, UEL = 75%)

GROUP C (ethylene, acetaldehyde, diethyl ether)
Maximum equipment temperature = 160°C
Required ignition energy 0.07 millijoules
Explosive range: (LEL = 3%, UEL = 32%)

GROUP D (propane, methane, most gases & vapours)
Maximum equipment temperature = 215°C
Required ignition energy 0.26 millijoules
Explosive range: (LEL = 2%, UEL = 9%)

DUSTS:

GROUP E (metal dusts)
Maximum equipment temperature = 200°C

GROUP F (coal/coke dusts)
Maximum equipment temperature = 200°C

GROUP G (grain, flour, starch)
Maximum equipment temperature = 1,165°C

Hazard Locations
EQUIPMENT is classified by GROUPS.

MATERIALS are classified by **HAZARD CLASSES** (locations) and **DIVISIONS**.

Each CLASS must be a certain distance away (clearance) from the designated hazardous area. If you place electrical equipment outside the designated

hazardous area, you can save on the purchasing and installation of high cost of intrinsically safe (explosion proof) equipment.

CLASS I GASES or VAPOURS

Div. 1 Flammable gases or vapours that are **exposed** all the time in open drains, vents, hatches (within 0.9m).

Div. 2 Flammable gases or vapours that are **contained** within a vessel, tank or pipe (within 1.5m).

CLASS II DUSTS

Div. 1 Combustible or electrical conductive dusts in **suspension** all the time.

Div. 2 Combustible or electrical conductive dusts **settled** in the area.

CLASS III FIBRES or WOOD CUTTINGS

Div. 1 Easily ignitable fibres or wood cuttings **being handled or in process**.

Div. 2 Easily ignitable fibres or wood cuttings **in storage**.

Check local CODES for the exact clearances.

Electrical Injuries

1. Most fatal accidents happen to those **who should know better -- ELECTRICIANS!**

2. **As low as 42 volts can KILL**, but it's the CURRENT (amperes) forced through the body that **kills**.

3. **Voltages under 1,000v are the most dangerous**.

4. **ALTERNATING current is more dangerous** than direct current.

5. **SKIN BURNS** have been reported form 3 volts.

6. **ABOVE 500 volts may ignite clothing**.

BODY RESISTANCE VARIES: Shock current depends on the body's resistance between the POINTS of contact. **Wet skin** will much more readily conduct electricity into the body.

BODY RESISTANCE	POINTS OF CONTACT
100 ohms	ear to ear
500 ohms	head to foot
1,000 ohms	wet skin

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35,000 ohms	**moist skin**
500,000 ohms	**dry skin**

PHYSIOLOGICAL EFFECTS VARY:

0.01 amps	= mild sensation
0.02 amps	= painful
0.03 amps	= can't let go
0.04 amps	= muscular paralysis
0.05 amps	= severe shock
0.07 amps	= labored breathing
0.1 amps (100 mA)	= **MAY KILL** by cardiac arrest
0.2 amps (200 mA)	= **MAY KILL** by cardiac arrest
0.3 amps & over	= severe burns, breathing may stop

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Electrical Substations-Panels & Gates

CONTROL PANELS:

1. **Do not place tools** or equipment where they will block access to control panels or where they can fall against controls or into wiring.

2. Treat all ungrounded parts of a panel **as live** at the highest voltage in the panel.

3. Before operating any control device, obtain authorization from the **system operator in-charge.**

4. **Keep clear of control panels and devices to avoid unintentional operation.**

SUBSTATION GATES:

1. **Obtain permission** from the operator in-charge before entering an energized substation.

2. When leaving a substations, double check to make sure fence and gates are **closed and locked.**

3. Do not pile material such as cross arms or boxes directly beside a substation fence; it may provide an access for unauthorized persons.

4. **Keep substation gates and enclosures closed or locked to prevent unauthorized entry.**

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Electrical Limits of Approach

1. No qualified **utility worker shall approach or permit others to approach** any exposed energized parts, closer than what is permitted by regulations **and** company policy, unless the energized supply equipment or lines are **isolated and effectively grounded or suitably insulated**.

2. No worker shall take any **conducting object** which doesn't have an **approved** insulating handle closer to any exposed energized parts than the distance specified in electrical regulations for approach distances, **and** company policy **unless** the energized supply equipment or lines are isolated and effectively grounded or suitably insulated.

3. Where the distances from energized parts s specified in electrical regulations for **Approach Distances for Qualified Utility Employees** cannot be secured by the use of approved insulating tools and appliances, **properly rated and approved** insulating gloves, shields, mats, covers and sleeves may serve as the sole portable insulating device between the worker and the live parts.

4. **<u>Before</u> commencing work on any power transformer, all power sources must be <u>visibly</u> isolated and grounded.**

APPROACH DISTANCES
FOR QUALIFIED UTILITY EMPLOYEES (USA)

Voltage range (phase to phase)	**Minimum approach to distance**
less than 300V	Avoid contact
301V to 750V	12 inches (30.5cm)
751V to 2 kV	18 inches (46 cm)
Over 2kV to 15 kV	24 inches (61 cm)
Over 15kV to 27 kV	36 inches (91 cm)
Over 37kV to 87.5kV	42 inches (107 cm)
Over 87.5kV to 121 kV	48 inches (122 cm)
Over 121kV to 140 kV	54 inches (137 cm)

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Electrical Grounding & Bonding

GROUNDING allows currents to run into the earth.

GROUNDING:
- Prevents build-up of static charges.
- Prevents build-up of high voltages from lightning.
- Allows lightning to take a direct route to the ground.
- Allows circuit protection equipment to act quickly.
- Protects persons from shock.
- Protects systems and equipment.
- Prevents arcing or sparking.
- Prevents overloading electrical equipment.

GROUNDING IS USED to prevent static build-up:
- when refueling vehicles or aircraft.
- when transferring flammable liquids to drums.

BONDING IS USED between hoses, nozzles, tanks, drums, piping to allow a continuous electrical circuit to the ground (earth).

GROUNDING AND BONDING SHOULD:
- Be permanent.
- Have ample capacity and low impedance.
- Be continuous and secure.
- Be visible for inspection.
- Not use dissimilar metals.
- Not impede movement of components.
- Not be fastened through nonmetallic materials.

NOTE: Hospital operating rooms require grounded equipment because a spark may ignite flammable vapours.

NOTE: Blasting caps require grounded equipment because a spark hazard may ignite explosives.

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Electrical Energized Line Safety

1. Use reasonable work practices when working on **energized lines** in accordance with ELECTRICAL AND COMMUNICATION UTILITY SYSTEMS REGULATIONS.

2. **Lines and equipment** energized above 750 volts between phases shall only be worked on by a qualified and authorized person using approved live line techniques.

3. Use only **approved** tools and equipment on energized lines.

4. Inform workers of the **work plan** before starting work.

5. While working on energized lines, workers shall wear safety glasses **approved for electric work**.

6. **No structure shall be climbed** if an energized conductor is making direct contact with that structure.

7. During work near energized lines, **maintain** the limit of approach distances to exposed live parts.

8. Where a line is designed and insulated for one voltage class and operated at a lesser voltage, the design and insulation levels **will determine** the proper limit of approach distances, not the actual operating voltage.

9. Treat electrical lines and equipment **as energized** unless they are **positively** known to be isolated and grounded. **No line** shall be considered isolated and grounded until protective grounds are installed.

10. All switching, clearing and grounding shall be in accordance with applicable electrical regulations.

11. **Before work is commenced** on any normally energized line or equipment, the line shall be:
    a) **Visibly opened** (isolated) at points of disconnection to all sources, and:
    b) **Identified** at each point of disconnection with a tag of distinctive appearance:
        i) Employee at work tag
        ii) A copy of a Line Clearance Log
        iii) Or properly installed temporary grounds in accordance with established company work procedures, and

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c) **Grounded** with temporary worker protective grounds in accordance with established work procedures.

12. **Underground riser poles** shall be considered as potential sources and shall be isolated and grounded as required.

Electrical Contact

CAUSES OF ACCIDENTAL ELECTRICAL CONTACT:

1. Using **aluminum ladders** near electrical lines.
2. **Not shutting off power** before working on wiring or electrical equipment.
3. Not **removing metal jewelry**.
4. **Not wearing** electrical resistant footwear, proper eye protection or insulating gloves.
5. Not using proper insulators.
6. **Not checking clearances** below or near power lines.
7. Working **too close** to power line (scaffold, ladder).
8. **Equipment parts capable of touching power line** (dumptruck, back-hoe, picker, lift, crane, scaffold).
9. **Dusting** off equipment without shutting off power.
10. Not using **ground-fault** protection.
11. Hand or face too close to **electrical arc**.
12. Metal tools too close to wires and batteries.

CAUSES OF EXTENSION CORD CONTACT:

1. Dropping or placing equipment on wires or cords.
2. **Dragging cords** over sharp objects.
3. Using frayed electrical cords.
4. Letting electrical cords lie in water.
5. Subjecting cords to heat, flame or molten metal.

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Electrical Clearance

A good electrical protection procedure is to maintain a **minimum clearance** from electrical equipment/wires. (Check local regulations for clearances in your area).

Clearances required from:

POWER LINES:

6.1 m (20 ft.)	above ground <23.1 kilovolts
6.7 m (22 ft.)	above ground 34.5 kilovolts
7 m (23 ft.)	above ground 46 kilovolts
7.6 m (25 ft.)	above ground 69 kilovolts

ELECTRICAL EQUIPMENT:

4.5 m (15 ft.)	from combustible materials
3.0 m (10 ft.)	from adjacent structures < 46 Kv
0.9 m (3 ft.)	switchgear clearance from ceiling
1.0 m (3.3 ft.)	in front of electrical equipment < 0.6 Kv
2.0 m (6.6 ft.)	in front of electrical equipment < 24 Kv
<4.0 m (13 ft.)	in front of electrical equipment > 25 Kv

ELECTRICAL WIRES:

5.8 m (19 ft.)	over pipeline right-of-way
5.7m (18.5 ft.)	across roads
5.2 m (17 ft.)	across lanes, alleys or entrances
4.6 m (15 ft.)	in rural areas
3.0 m (10 ft.)	above flat or metal clad roofs
4.6 m (15 ft.)	above/beside residential driveways
1.0 m (3.3 ft.)	above peaked roofs
4.0 m (13 ft.)	across pedestrian walkways
3.0 m (10 ft.)	horizontally from walkways

HAZARDOUS AREAS:

450 mm (17 inches)	above ground
1.5 m (5 ft.)	above hazard area (meter, tank)
3 m (10 ft.)	from ground fill pipe
6 m (20 ft.)	from gasoline pumps
7.5 m (25 ft.)	from large propane tanks

Kv = Kilovolts (1000 volts)

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Electric Tool Safety

1. The non-current carrying **metal parts** of portable electric tools such as drills, saws and grinders **shall be effectively grounded** when connected to a power source, unless:
    a) The tool is an approved double-insulated type, or
    b) The tool is connected to the power supply by means of an isolating transformer or other isolated power supply, such as a 24V DC system or ground fault circuit interrupter.

2. **Inspect all power tools** prior to use to ensure they are in good condition and all applicable safety features are in good working order.

3. Electrical tools shall be disconnected from the power source **while making repairs** or adjustments.

4. Don't use electric tools where there is a flammable vapour, or combustible dust hazard present.

5. Keep work area clean.

6. Secure work with clamps or a vise.

7. Wear safety glasses.

ELECTRICAL CORDS:

1. **DO NOT PLACE extension cords** in a position to create a tripping or contact hazard.

2. Don't pull electrical **plugs** out by pulling the cord.

3. **Don't pull** the cord to release if caught.

4. Disconnect electrical cords **when not** in use.

5. **Don't cut off ground pin** on electrical cord plug.

6. Keep electrical cords away from sharp objects.

7. Repair or replace cords that are cut, torn or frayed.

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Electric Drill Safety

1. Assess the hazards of your task and determine the proper drill to use.
2. Adjust the clutch on your drill according to the work being performed.
3. Use drill lube where required.
4. Use a Handle for extra control of your drill.
5. Drill a pilot hole and step up your bit size to reach desired hole size
6. Wear safety glasses or goggles when drilling. Wear foam rimmed glasses when drilling overhead.
7. Keep fingers at least 4 inches away from bit.
8. Wear a close fitting shirt to avoid bit contact.
9. Locate wiring & pipes before drilling into walls.
10. Check behind before drilling through parts.
11. Align drill at right angle to surface (90 degrees).
12. Repair frayed electrical cords.
13. Use a clamp, not your hand to hold small parts.
14. Use the proper drill bit for the job.
15. Drill from a comfortable position.
16. Keep drill vents clear.
17. Keep drill bits sharp.
18. Tighten the chuck securely.
19. Remove the chuck key before starting the drill.
20. Slow the rate of drilling speed before breaking through a wood or metal surface.
21. Hold onto the drill firmly

Last Updated: September 8, 2014

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Angle Grinders

PURPOSE:
To inform Westward employees on the proper use of angle grinders.

The use of an angle grinder can introduce additional hazards to a worksite. Extra precaution must be maintained for their use and the requirement of additional PPE is required.

ADDITIONAL HAZARDS:

a) Dust and Debris in the operators eye
b) Broken/damaged or Fragmented Disks
c) Loud Noises for Prolonged period (over 85db)
d) Cuts
e) Burns from metal sparks
f) Dust and metal filings in the air.
g) The grinding or cutting disk may be incorrect for the application
h) Size of grinder not suited to application.
i) Grinder kicks out / back due to disc jamming in work.

Precautions to be taken:

a) If possible. Eliminate the hazard of angle grinders by finding a safer tool to use
b) Wear the appropriate PPE for the job – See Below for PPE requirements
c) Inspect the grinder prior to use.
d) Inspect the cord ends.
e) Inspect the Disk to be used
f) Ensure that the disk being used is the proper disk for the task
g) Ensure all guards are in place.
h) Do not adjust grinder when it is running.
i) Ensure material that is being ground is secure.
j) Ensure solid footing when grinding.
j) Shield others from sparks.
k) Do not wear loose clothing.

PPE Requirements: (minimum)
a) Face shield.
b) Hearing protection.
c) Leather Gloves
d) Long sleeves and long pants

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Procedure:

a) Perform a Hazard assessment of the area where work is to take place.
   Pick a spot that is away from any flammable substances
   Be mindful of where your sparks will be flying
b) Secure the area and communicate with workers in the area that there will be grinding.
c) Inspect your grinder while it is unplugged
   HAND HELD GRINDER MUST HAVE:
   A guard covering 120 degrees of the disc circumference
   A handle mounted at 90 degrees to the body of the tool.
   Neither may be removed.

d) Check that the speed rating is equal to the disc with the grinder unplugged.
e) Select the proper Disk – ***See Diagrams below***
f) Secure the material that you will be grinding.
g) Plug in the Grinder
h) Allow the grinder to run for 60 seconds before starting to grind.
i) Keep the grinder steady and avoid bumping motions or pressing hard on the disk. Such actions can cause the disk to break or be damaged.

   If a disk needs to be replaced unplug the grinder prior to removing the disk.

j) If a cut off disk is being used be sure to not side load the disk. Read the warning labels and recommendations on proper disk use.
k) Disc must come to a complete stop before releasing grip on either handle.

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Abrasives Metal Fabrication Selection Tool

STEP 1 - Select TOOL : Right Angle Grinder
STEP 2 - Select APPLICATION: Weld Blending/Beveling
STEP 3 - Select MATERIAL: Stainless/High Alloy Steel

STEP 5 : SECOND SELECTION

STEP 4 : FIRST SELECTON

	Fast Cutting	Long Life	Low Vibration	Low Pressure	Better Surface Finish/ No Gouging	Low Total Costs	Low Price
Fast Cutting		Ceramic Alumina T27 Depressed Center Wheel	Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina Fiber Disc 36 grit	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina Fiber Disc 36 grit	Zirconia Alumina Fiber Disc 36 grit
Long Lasting	Ceramic Alumina T27 Depressed Center Wheel		Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 36 grit	Zirconia Alumina T27 Depressed Center Wheel
Low Vibration	Ceramic Alumina Flap Disc 36 grit	Ceramic Alumina T29 Flap Disc 36 grit		Ceramic Alumina Fiber Disc 36 grit	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 36 grit	Zirconia Alumina Fiber Disc 36 grit
Low Pressure	Ceramic Alumina Fiber Disc 36 grit	Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina Fiber Disc 36 grit		Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 36 grit	Zirconia Alumina Fiber Disc 36 grit
Better Surface Finish/ No Gouging	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 60 grit	Ceramic Alumina T29 Flap Disc 60 grit		Ceramic Alumina T29 Flap Disc 60 grit	Zirconia Alumina Fiber Disc 60 grit
Low Total Costs	Ceramic Alumina T27 Depressed Center Wheel	Ceramic Alumina T27 Depressed Center Wheel	Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina T29 Flap Disc 36 grit	Ceramic Alumina T29 Flap Disc 60 grit		Zirconia Alumina T27 Depressed Center Wheel
Low Price	Zirconia Alumina Fiber Disc 36 grit	Zirconia Alumina T27 Depressed Center Wheel	Zirconia Alumina Fiber Disc 36 grit	Zirconia Alumina Fiber Disc 36 grit	Zirconia Alumina Fiber Disc 60 grit	Zirconia Alumina T27 Depressed Center Wheel	

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Barricades & Barriers

PURPOSE: The purpose of this procedure is to protect the workers from a potential hazard and control entry at workplace where hazard exist.

REFERENCE:

- Alberta's OH&S Act, Regulation and Code (Current Edition)

SCOPE: This procedure applies to all Westward employees and subcontractors working on projects.

RESPONSIBILITIES:

Competent Person - A competent person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Work Permit Receiver - Authorized craftsmen who have been certified by their division head to sign and receive work permit.

Supervisor/Foreman - Utilize barricades, barriers, fences, and other warning devices during construction and maintenance operations requiring open trenches or excavations

HSE Officer - Ensure that barricades are properly installed and complete. Inspect barricades in different location during routine inspection

Employees - Comply with all warning sign, barricades, and barriers during the execution of work.

DEFINITIONS

Barricade - A means of obstruction to deter the passage of persons or vehicles.

Barrier - Permanent physical device to protect workers from a hazard and control access to the area where the hazard exists (e.g., fences, machine guards, radiation shielding, blast barriers, and Faraday cages).

Guard Rail System - A barrier consisting of toprails, midrails, toeboards, and supporting uprights, erected to prevent workers from falling off an elevated work area and prevent objects from falling unto workers below.

PROCEDURE:

1. The following shall be considered during selection of barricades and barrier.
   - The nature of the hazard.
   - The need for the barrier to be well constructed and durable, and to not interfere with the operation of the equipment or experiment.
   - The circumstances under which the barrier can be opened or removed.
   - Whether the barrier creates new or unacceptable hazards.

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- The need for the barrier to prevent missile or fragment penetration and eliminate harmful overpressures associated with some hazards.
- The need for the barrier to serve as a shield to reduce radiation levels in occupied areas to acceptable levels.

Design engineers shall ensure proper design, fabrication, assembly, installation, and testing of these barriers.

2. Open-Trench Barricades
   - Personnel engaged in construction and maintenance work requiring open trenches or excavations shall provide protection for pedestrians, bicyclists, and vehicular traffic.
   - Where possible, backfill the open trench/excavation immediately or provide a suitable continuous covering.
   - If this is not possible, provide barricades to warn workers of the presence of the trench and its danger.
   - Construction workers shall provide walkways adjacent to occupied buildings, main thoroughfares, intersections, and at recognized pedestrian traffic locations that can accommodate normal traffic patterns and emergency evacuation.

3. Construction Barricades
   - Type II barricades as defined by ANSI Standard D6.1 shall be positioned at 10-ft (3-m) intervals on each side of the trench. When viewed from the side, barriers on opposite sides of the trench shall not appear to be adjacent to each other but offset at 5-ft (1.5-m) intervals. Type II barricades requirements are as follows:

Minimum Height	3 feet
Width of Rail	8 – 12 inches
Length of Rail	2 feet minimum
Width of Stripes	6 inches
Number of Reflectors	4 (two in each direction)
Rail Faces	

   - Each barricade shall be placed at least 2 ft (0.6 m) away from the opening.
   - Each barricade that will remain in place during periods of darkness shall be equipped with a 20-cm-diameter yellow flasher visible to oncoming vehicular and pedestrian traffic.
   - When continuous solid barriers (e.g., fences) are not provided, tie interconnecting ropes or special yellow plastic strips between the barricades. If ropes are used, attach streamers between the barricades.

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- Crossing points shall be identified in construction drawings and sketches so that walkways and bridges with standard guardrails (or equivalent) can be provided. Furnish adequate lighting at the crossing points.
- Wherever vehicular traffic crosses a trench, install suitable metal-plate coverings for weight support.

4. Fall Protection Requirements

Must be followed where personnel are working on high elevation.

Pulling Wire with Fish Tape

PURPOSE:
To inform employees of Westward on the proper use of fish tapes. The goal is to reduce the chance of damage to the fish tape as well as to protect the worker from causing damage or injury to oneself when working around energized equipment.

To safely and efficiently pull wire through conduits, raceways, etc. Unfortunately pulling wire or cable is viewed, on occasion as, “grunt work”. We have to realize that it is an integral part of our profession and must be taken seriously. Electricity, "we can't fear it, because we have to work with it, but we must respect it. We have to constantly remember that we're working with a very powerful, deadly force. One wrong move or stupid mistake and we might put our life on the line, as well as the lives of our co-workers." Abide by the following procedure and allow for no mistakes.

APPLICATION
This procedure applies to all employees of Westward as well as any worker associated with the company Such as a vendor, maintenance worker, or sub-contractor. The rules outlined in this procedure are a requirement of employment and failing to comply with these rules will result in disciplinary action.

JOB PLANNING:
Regardless of the size or the complexity of a job, they will all require planning, some with little detail, others needing substantial research and layout. It is important to be fully organized, in order for the job to be completed efficiently and safely with in the scheduled time frames.

Properly planned jobs with well-trained workers undoubtedly will be safer than those with both inferior planning and lack of worker awareness.

JOB PROCEDURE:

1. Communication between the employees and supervision to determine the route, safety concerns and requirements of the task. Arrange a pre-job meeting if necessary.
2. Complete a pre-job hazard assessment outlining all safety concerns.
3. Gather together all required Personal Protective Equipment according to the Westward PPE policy.
4. Gather all necessary equipment for the wire pull such as Linesman pliers, fish tape, wire racks, electrical tape, pull string, communication devices and wire lube etc.
5. Perform an inspection on the Fish tape to check for any Cracks, Nicks, rust or sharp bends in the fish tape.

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Note: Do not cold bend the fish tape to create a loop as a cold bend will weaken the integrity of the metal.

6. Set up the wire using a wire reel to be installed. A shallow angle between the wire roll and the conduit will reduce the amount of pulling force required.

Prior to pulling wire into a conduit check for any conductors in the conduit that are energized

7. Isolate energized conductors if possible or shield any points, which could come into contact
   with the fish tape or operators. Always lock out and tag out de-energized equipment.
8. Push the fish tape into the conduit from the pull point and feed it to the point where the wire
   will be inserted. The tape may bind and may have to be rotated clock wise or counter clockwise to negotiate any bends. Several attempts may be required to pass a bend.
9. Once the fish tape has reached the point where the wire is to be inserted stop. Secure the
   wire or pull string to the fish tape loop or swivel. Pass the wire through the loop or swivel and twist it back onto itself.
10. Wrap the pull string, wire/fish tape connection fully with plastic tape to prevent the connection from catching or pulling open inside the conduit during pulling.
11. Pull fish tape with wire or pull string attached through the conduit. The wire being fed into
    the conduit should be kept free of kinks and bends. Good coordination is required between the person pulling the fish tape and the person feeding the wire into the conduit. (Radio communication is recommended.) If the wire is taken off the spools and laid out on the ground to ease installation, precautions must be taken to protect the wire from damage. Use flagging or barricades to secure the area.
12. Continue to pull fish tape, winding excess into the case or allow the tape to coil in a safe location as the wire works its way through the conduit. Do not force a pull that is hung up. Pull back on the wires and try again.
13. When the fish tape exits the conduit, disconnect the tape from the wire and pull sufficient wire to reach the termination point.
14. Return tools to the tool crib and clean-up work area.

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Required Personal Protective Equipment: (minimum)

1. Full length pants and full length sleeves
2. CSA Grade 1 safety boots (green triangle)
3. CSA approved leather gloves

Additional PPE that may be required:

Perform a hazard assessment of the site to determine if additional PPE is required based on the job location and conditions of the worksite or area.

See the Westward Personal Protective Equipment policy to determine what additional PPE you need. Listed below are some guidelines.

1. **CSA or ANSI approved hard hats** - whenever there is a foreseeable injury to a workers head and if there is a significant possibility of lateral impact to the head
2. **Safety Glasses** - Employees must wear Safety Glasses in situations where flying objects or particles, splashing liquids (including acids and caustics), molten metal, ultraviolet visible or infrared radiation, dust, solids, air at high pressure, or liquids other than rain may get in their eyes. Safety glasses are required on all facility sites and where heavy equipment is working.
3. **Reflective vest** – When workers are exposed to the hazards of vehicles traveling at speeds in excess of 30 km/h (20 mph) must wear high visibility apparel or where there is heavy equipment in the area.
4. **CSA approved Hearing protection** - required in areas where the decibel level is over 85.

Megger Testing

PURPOSE:
To put procedures in place for testing insulation with the use of a Megger.

Megger produces and provides high-performance insulation tests for electrical equipment applications. According to Megger.com, regular insulation testing can identify aging in an array of electrical devices. By locating the potential for problems in electrical equipment, users can fix or replace the equipment before it fails. According to Megger, more than 60 percent of equipment failures can be attributed to insulation deterioration.

Read more: http://www.ehow.com/how_7602977_test-megger-insulation.html#ixzz2tsMPVX00

PHYSICAL HAZARDS THAT MAY BE PRESENT:

- Electrical equipment (transformers, switching gear, breakers, high voltage lines)
- Generators (electrical)
- Electricity – High Voltage / Low Current
- Inclement weather - lightning, high wind, snow, rain, sleet
- Repetitive motion or other ergonomic concerns
- Sharp objects
- Slippery surfaces (water, ice, snow)
- slips/trips/falls
- Unforeseen hazards Wires, cables, hoses

POTENTIAL HAZARDS:

- Awkward or static position
- Caught in or between a stationary/moving object
- Collision between moving vehicles and/or equipment
- Cuts and abrasions
- Electrocution or shock
- Excessive lifting, twisting, pushing, pulling, reaching, or bending
- Exposure to excessive vibrations Falling (< 6 feet), tripping, or slipping

ADMINISTRATIVE CONTROLS:

- Buddy system
- Certified operators
- Competent person
- Confined space procedure
- Drug and alcohol policy

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- Electrical Safety
- Emergency procedures
- Housekeeping practices
- Inspections (pre-job) - work areas, equipment, tools, etc.
- Lockout/tagout
- Procedures and/or guidelines (job or activity)
- Safety meetings - on-going (e.g., daily or weekly safety meeting)

ENGINEERING CONTROLS:

- Ventilation and exhausting

REQUIRED PPE:

- Boots - steel toe and shank, appropriate soles
- Clothing - long pants Clothing - long sleeve shirt
- Gloves - work gloves
- Hard hat
- Hearing protection is required if using power tools in the confined space or if the dB level is over 85.
- Safety glasses
- Work Gloves

EQUIPMENT REQUIRED:

- Megger Device
- Electrical Tape

PRE-MOBILIZATION

1) Complete a pre job hazard assessment (FLHA).
2) Put on the proper PPE according to the Westward PPE policy.
3) Inspect tools and equipment checking for damage or wear which could be hazardous

PROCEDURE:

1) **DE-ENERGIZE THE WIRE**
    a. Disconnect all electrical power from the wire you are testing
    b. Follow Lock Out Tag Out safe job procedures
    c. Remove any electrical connections from the wire you are testing

2) **ATTACH THE MEGGER**
    a. Cap one end of the wire with the use of a wire nut or Insulating tape
    b. Attach the Megger to the opposite end of the wire

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c. Attach the megger ground wire to the electrical system via the electrical panel box

3) **POWER UP THE MEGGER**
   a. Turn the Meggers switch on
   b. Press the Meggers charge button on the face of the device
   c. Read the Megger
   d. If the meter reads greater then 999, the wire has excellent insulation
   e. If the meter reads less than 1.00 meg the wire may have poor insulation or other problems
   f. Record your readings

4) Energize the wire
   a. Re-install all electrical connections to the tested wire
   b. Remove Lock Out
   c. Energize the wire
   d. Test the circuit for power

5) **DEMOBILIZE FROM SITE**
   a) Assess work area prior to completing the job
   b) Remove all tools, equipment and material
   c) Take down any signage or barricades.
   d) Follow the Highway traffic act and Hands Free driving rules on and off site

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Lock Out Tag Out

PURPOSE:
To ensure the safety of people performing work on, near, or around equipment through the means of proper electrical or mechanical isolation. To establish a fail-safe means of de-energizing electrical (and electrically powered) equipment without risk to personnel or equipment. To prevent unintentional electrical outages. To ensure when work is being done involving electrical distribution systems that procedures are followed consistently and all regulations are strictly adhered to.

SCOPE:
This procedure applies to all westward employees assigned to construction, maintenance, testing and commissioning as well as service work. It also applies to subcontractors and vendors to Westward as well as anyone else who may be involved with the execution of pertinent work. The rules listed are mandatory, and apply to everyone regardless of discipline. Non-compliance or improper use of this procedure will result in disciplinary action.

Definitions
Affected Employee - An employee whose job requires him to perform servicing or maintenance on equipment under electrical lockout or tag out, or whose job requires him to work in an area in which such servicing or maintenance is being performed.
Competent - In relation to a worker, it means suitably qualified, adequately trained and reasonably experienced. The worker must also demonstrate the ability to perform tasks with a minimal degree of supervision.
Electrical Isolation - Electrical isolations guarantee the absence of voltage and will indicate that the equipment is completely void of electrical energy.
Energized - Connected to an energy source or containing residual or stored energy.
Energy Isolating Device - A mechanical or electrical device that physically prevents the transmission or release of energy, including but not limited to the following: a manually operated electrical circuit breaker; a disconnect switch by which the conductors of a circuit can be disconnected from all (un-grounded) supply conductors, and in addition, no pole can be operated independently
Energy Source - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
Isolated: separated or disconnected from every source of electrical, hydraulic, pneumatic, or other kind of energy that is capable of making electrical equipment dangerous.
Isolation - Is a method of controlling hazards and risks associated with equipment, energy sources, harmful substances, and hazardous materials.

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Isolation Tags - An isolation tag is the form used to identify who has locked out the equipment and why. This tag shall accompany all personal locks and lockout authority locks regardless of circumstance. Tags must be hung so that it is visible without having to open doors or cabinets. They must be attached securely. *Remember never to use conductive materials to affix the tag.
Lockout - Means a state whereby the isolated condition is secured and maintained with a lock and key device. The equipment being controlled cannot be operated until the lockout device is removed.
Lockout Authority - A designated individual deemed competent by management, (with the names of both the first and second alternatives readily available) authorized to control the lockout and tagging of equipment and or system(s). This person shall be fully cognizant of this procedure and the HS & E manual.
Personal Locks - A lock used by a qualified individual to ensure an electrical or mechanical system cannot be energized while work is done to it or related equipment.
Safe Work Permit - A document issued by an authorized person permitting specific work for a specified time in a defined area.
Supervisor - A person who is in direct control of any given work activity, typically a discipline craft foreman.
Tagged - Means a state whereby the isolation has been performed and has been identified by an isolation tag.

General
At times qualified electrical workers including electrical journeymen, electrical apprentices, technologists, technicians, etc., may be required to work in an environment of energized electrical equipment (non-related crafts may also need access). The voltages could range from control voltages of less than 24 volts upwards to equipment system voltages of 500 kV. In the event of accidental contact the possibilities of a serious catastrophe are far greater when voltages are higher, but hazards still need to be recognized and remedied when lower voltages are present. Where the unexpected energizing, start-up or release of stored energy could occur and cause injury or damage, the machine or equipment shall be isolated and rendered inoperative.

All equipment shall be locked out, and or tagged out, by the designated lockout authorities to protect against accidental or inadvertent operation or energization. When such operation could cause injury to personnel or damage to equipment, the lockout and tag out activities shall be documented on the lockout and tag out log(s).Westward employees are therefore expected to work in strict compliance with the current regulations, regardless of the voltage.

In some cases, the client will specifically insist on using their safe work rules, usually applicable to large scale projects and mining activities. The Westward

supervisor can agree to do so providing they are equal to or exceed the safety standards of this manual. Otherwise, deviations from these practices are unacceptable unless authorized through a formal risk assessment and your area safety supervisor.

Job Planning

Regardless of the size or the complexity of a job, they will all require planning, some with little detail, others needing substantial research and layout. It is important to be fully organized for the job to be completed efficiently and safely with in the scheduled time frames. Properly planned jobs with well-trained workers undoubtedly will be safer than those with both inferior planning and lack of worker awareness. The Westward supervisor is therefore to proceed with planning activities by under taking to:

1) Personally become familiar with the details of the work involved and, where necessary, prepare a detailed job plan including work procedures. The supervisor should ensure that plans and procedures are based on accurate up-to-date information.

2) Arrange, when necessary, pre-job meetings to review job details with:

a) Client/Owner

b) Subcontractors

c) Utility Supervisor

d) Designated Job Foreman

3) Prepare where necessary, a local shutdown schedule and a lockout/tagging procedure for the area. Ensure all concerned parties are notified and made aware of scope.

4) Mobilize a suitable supply of appropriate tooling, test devices and operating equipment required for the job. Tools of special design and insulation may be required to eliminate as far as practicable to do so, the danger of forming short circuits across conducting parts with different potentials and accidental worker contact with energized components.

5) Convey information regarding the identification of the closest First Aid Station, evacuation area (muster points), and emergency meeting points.

6) Rallying of all Personal Protective Equipment required to do the job safely and efficiently. A ready supply shall be made available.

7) Supplying “Do Not Operate” tags, lockout logbooks, lock out locks, operating diagrams or equivalent devices and portable danger signs.

8) Providing approved portable fire extinguishers for use on energized electrical equipment (20 lb. dry chemical preferred).

9) Obtain and ensure integrity of fixed or portable lighting equipment if deemed necessary.

Identification & Isolation

Prior to the start of any activities on electrical systems it is extremely important to positively identify the equipment cables, bus bars, or operating devices that are integral items of the system forming the subject work. Thorough examination of drawings, schematics, one line diagrams, conductor configurations and visual inspections of equipment are necessary to ensure proper identity is satisfactorily complete.

The crew supervisor will then get a clearance from the proper authority before any cable or equipment is de-energized or cleared for work. Thereafter, all workers shall be instructed as to the character of all equipment or conductors on, or dangerously near to, a location where work must be done and the instructions shall also describe the equipment and conductors to be worked on, identifying them either by position, phase letter or color, number or name. They are also to be instructed on the extent of new equipment and conductors becoming energized at completion of work.

Once identification has been established, de-energizing, and lockout activities may proceed. The Westward supervisor shall ensure that all items and activities requiring attention for the complete safety of his workers have been done.

Primarily these are, but not necessarily, limited to the following:
1) All load break devices have been locked out in the open position and rendered inoperable.
2) All disconnect switches have been locked out in the open position and rendered inoperable.
3) Any grounding switches in the particular section of the circuit have been locked closed and rendered inoperable.
4) All automatic re-closing devices have been blocked and remote-controlling devices rendered inoperable.
5) The normally energized conductors of the system have been isolated, tested for potential and grounded with an approved grounding harness. The ground connections shall be at points located between the area of work and all points of the conductor's energy sources.
6) Transformers in the electrical system shall be drained of any possible residual voltage.
7) Isolated capacitor banks have been short circuited and grounded. Workers shall not make contact with capacitor terminals until 5 minutes have elapsed after de-energizing.
8) All manual and automatic controlling devices have been locked out, tagged and rendered inoperable.
9) All potential transformer fuses have been removed to prevent possible back feeds. The individual conducting the work will then test for potential at his local

work station and determine that the conductors and or equipment are de-energized before work commences

PROCEDURE:

1. Individual locks/tags shall be applied and removed by each person exposed to the potential for unexpected release of hazardous energy.

2. Enter each lock to be used for isolation of a hazardous energy source on an isolation log sheet.

3. Where equipment is lockable, use of a lock is required by all exposed personnel.

4. If equipment is not lockable, the equipment must be rendered inoperative in a manner that prevents its accidental reactivation and must be accompanied by tags.

5. When locks are used in the lockout/tagout process, they shall always be accompanied by tags.

6. Locks used for lockout procedures shall not be used for any other purpose and shall be numbered accordingly.

7. Before de-energizing or isolation of any equipment on the work site, the individual must notify his/her supervisor and the owner's representative.

8. De-energizing or isolation will not be effected until authority is granted and an inspection is made to ensure it is safe to proceed.

9. When the workers lock is in place, a calibrated approved meter must be used to test and the equipment control button or switch must be pressed two times to ensure the equipment is de-energized, where applicable, i.e. verification of isolation.

10. All lockouts/tagouts shall be removed prior to the end of the work shift. In the event, that the system is not able to be made safe Westward's Lockout. Lockout devices shall not be removed until each involved worker is accounted for and it is verified that no worker is in danger by the removal of the lockout device.

In circumstances where the prime contractor wishes to use a different lockout procedure. Or where the use of a lockout authority is required.

This procedure will defer to the prime contractors procedure or whichever program is considered to be more stringent.

***The safety information in this program does not take precedence over any applicable legislation.*

Installation: Data/Voice/Ethernet Cable

PURPOSE:
To put procedures in place for installing Data, Voice, and Ethernet cable.

EQUIPMENT REQUIRED:
- Hand Tools
- Power Tools, Cordless drill, Saws, ladders
- Fish Tape
- Sharpie

MATERIAL REQUIRED
- Electrical Material
- Staples
- Cable Ties
- Sharpie
- Electrical Tape

PPE REQUIRED: (MINIMUM)
- Steel Toe Work Boots
- Gloves
- Long Sleeves
- CSA Approved Glasses
- Additional PPE determined by Site Policy and Hazard Assessment.

Follow Westward Personal Protective Equipment policy.

POTENTIAL HAZARDS:
1) Congestion in the work area
2) Working from Heights
3) Tight working conditions
4) Low Lighting
5) Slippery surfaces and tripping hazards
6) Loud Noises

PREJOB:
1) Attend morning Tool box Talk
2) Mobilize to site following the mobilize to site Safe Job Procedure
3) Complete a Field Level Hazard Assessment
4) Inspect tools and equipment prior to use

***The safety information in this program does not take precedence over any applicable legislation.*

PROCEDURE:

1) **DETERMINE THE ROUTE OF THE CABLE**
    a. If using a ladder be sure to maintain 3-point contact.
    b. Watch for Unseen hazards such as “headbangers”

2) **CLEAR THE CABLE ROUTE, DRILL HOLES ETC.**
    a. Follow the safe Job Procedures
    b. Use hearing protection when using power tools
    c. Wear CSA approved safety glasses when cutting or drilling
    d. Maintain good housekeeping while working.
    e. If using a ladder always maintain 3-point contact. Follow SWP: Ladders

3) **LAY OR PULL IN CABLE**
    a. Maintain 3-point contact at all times when using a ladder
    b. Follow the SWP for lifting material when lifting heavy boxes, tools etc.
    c. Update FLHA card
    d. Maintain good housekeeping practices
    e. See Manufacturers Specifications for Recommend Pull tension

4) **LABEL EACH WIRE**
    a. Maintain 3-point contact if using a ladder
    b. Practice good housekeeping

5) **DEMOBILIZE FROM SITE**
    a. Remove all Tools and Materials
    b. Perform a final inspection of the area
    c. Follow Alberta Traffic Laws

***The safety information in this program does not take precedence over any applicable legislation.*

Installation of Mineral Insulated Heating Cable

PURPOSE:
To install Mineral Insulated Heating Cable without damage to material and equipment and without personal injury.

OBJECTIVE:
Mineral Insulated Heating Cable can be used in a variety of applications including snow melting, space heating, roof de-icing and for the protection of piping from freezing. Cables can be embedded in concrete, asphalt, or terrazzo. They can be applied to copper, galvanized sheet metal, stainless steel or aluminum.

DEFINITIONS:

Mineral Insulated Cable - Consisting of inorganic substances of copper and magnesium oxide only, MI cable does not age and has a long service life. The insulator with little deterioration at high temperatures and the copper sheath with good heat dissipation permit a large allowable current. MI cable has a unique structure comprising of copper conductor covered by magnesium oxide and copper sheath. It does not burn in normal environments because the melting temperatures of magnesium oxide and copper are around 2800ºC and 1100ºC, respectively.

Reduced diameters and smaller bending radii mean that installation space and the cable weight can be decreased, permitting orderly and neat installation. Copper-sheathed MI cables and exclusive MI heating cables are available to implement heating and heat insulation of various facilities up to the maximum of 600ºC. The cable has an established track record with chemical plants and pipelines.

Terrazzo - A flooring material of marble or stone chips set in mortar and polished when dry.

GENERAL
This procedure is applicable to all employees assigned to construction, maintenance, testing & commissioning and or service work. It also applies to all sub-contractors, lower tier subcontractors, vendors or anyone else who may be involved with execution of pertinent work. The following rules are mandatory, and apply to all personnel regardless of discipline. Improper use of, or non-compliance with, this procedure will result in disciplinary action.

JOB PLANNING:
Regardless of the size or the complexity of a job, they will all require planning, some with little detail, others needing substantial research and layout. It is

important to be fully organized, in order for the job to be completed efficiently and safely with in the scheduled time frames.

Properly planned jobs with well-trained workers undoubtedly will be safer than those with both inferior planning and lack of worker awareness.

1. Both the supervisor and individual(s) conducting the work shall become familiar with the details of the work involved and, where necessary, prepare a detailed job plan including work procedures. The supervisor should ensure that plans and procedures are based on accurate up-to-date information.
2. Arrange, when necessary, pre-job meetings to review job details with:
   a) Client/Owner
   b) Subcontractors
   c) Utility Supervisor
   d) Designated Job Foreman
3. Convey information regarding the identification of the closest First Aid Station, evacuation area (muster points), and emergency meeting points.
4. Rallying of all Personal Protective Equipment required to do the job safely and efficiently. *A ready supply shall be made available.
5. Obtain and ensure integrity of fixed or portable lighting equipment if deemed necessary.

TABLE

Pipe Size	**Flange of Check Valve (feet)**	**Globe or Gate Valve (feet)**	**Recommended Extra Cable to Allow for field Variations**
½"	½	0	2%
¾"	½	½	2%
1"	½	¾	2%
1 ½"	½	¾	2%
2'	¾'	1 ½'	2%
3'	¾'	2 ¼'	2%
Pipe Size	Flange or Check Valve (feet)	Glove or Gate Valve (feet)	Recommended Extra Cable to Allow for field Variations
4'	¾'	2 ¼'	3%
6'	¾'	2 ½'	3%
8'`	¾'	3	3%
10"	¾"	3	3%
12'	¾'	3 ½'	3%
14'	1	5	3%
16'	1	5 ½'	3%
18'	1	6 ½'	3%
20'	1	7	3%
24'	1	8	3%
30'	1	9 ½'	3%
36'	1	11 ½'	3%
48'	1	11 ½'	3%

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INSTALLATION:

1. Assemble all components for installation. Heating cables are supplied for a specific location of a given length. Check the number on the supplied cable against the drawing, which identifies where the specified cable is to be place and on which line. METAL TAGS MUST NOT BE REMOVED FROM COLD LEADS.
2. Check heating cable with 500-volt insulation tester when received before installation and after installation. A reading of a least 5 mega-ohms should be obtained between the conductor and sheath. The heating cable should also be checked with an ohmmeter to ensure continuity exists on the conductor. Record the results of the tests and proceed with installation if meter readings are acceptable.
3. Remove from shipping container at a location near the point of use. Avoid damage to the cable by handling with reasonable care, **DO NOT BEND** to a radius less than six times the cable diameter, **DO NOT ALLOW** the cable to be stepped on, make all connections to supply cables in above grade junction boxes and keep covers on junction boxes as wire in accordance with electrical code.
4. Prevent overheating of cable by not energizing before installation, installing so that cables are not grouped, touching or crossed, ensure cable is not in contact with insulating material unless it is designed to be as with Pipe tracing, keep welding torches clear of the cable and not altering the heat length of the cable.
5. Lay out the cable on the pipe to which it is designed to fit.
6. The cable should be fastened to each end of the pipe with pipe straps/banding.
7. Fasten the middle of the cable to the middle of the pipe leaving equal slack on either end.
8. Fasten at the middle of the remaining lengths, repeating depending on the length of pipe. The loops should be formed around the pipe and fastened at intervals not exceeding 2 feet. This is especially important at values and when anticipated that the pipe may need to be taken apart at a later date. Also, it allows for expansion and contraction of the heating cable. The PVC jacket, if used on the cold leads, must not extend beneath the insulation on pipes operating above 200 degrees F. Extra cable should be used at points such as valves and flanges to compensate for increased heat loss. The attached table lists the extra to be installed per run of tracer per valve or flange.
9. Form the heat trace around valves. Use non-rusting (stainless steel) tie wire, 16 AWG or larger on irregularly shaped objects such as values. Tie wire and strapping should be snug, but not cut or indent the cable sheath.
10. Do not cross sleeve-type expansion joints as the flexing can damage the cable.
11. Thermostatic control must be used. Do not place bulb or capillary of thermostat closer than 2 inches to heating cable.
12. Insulation, if used, should be suitable for temperatures involved and for the location of the pipe (e.g. Outdoors or below grade). Install insulation as

recommended by the manufacturer. However, any combustible material such as over wrap should be removed.

13. Clean up job site - dispose of garbage. Return tools to the tool crib.

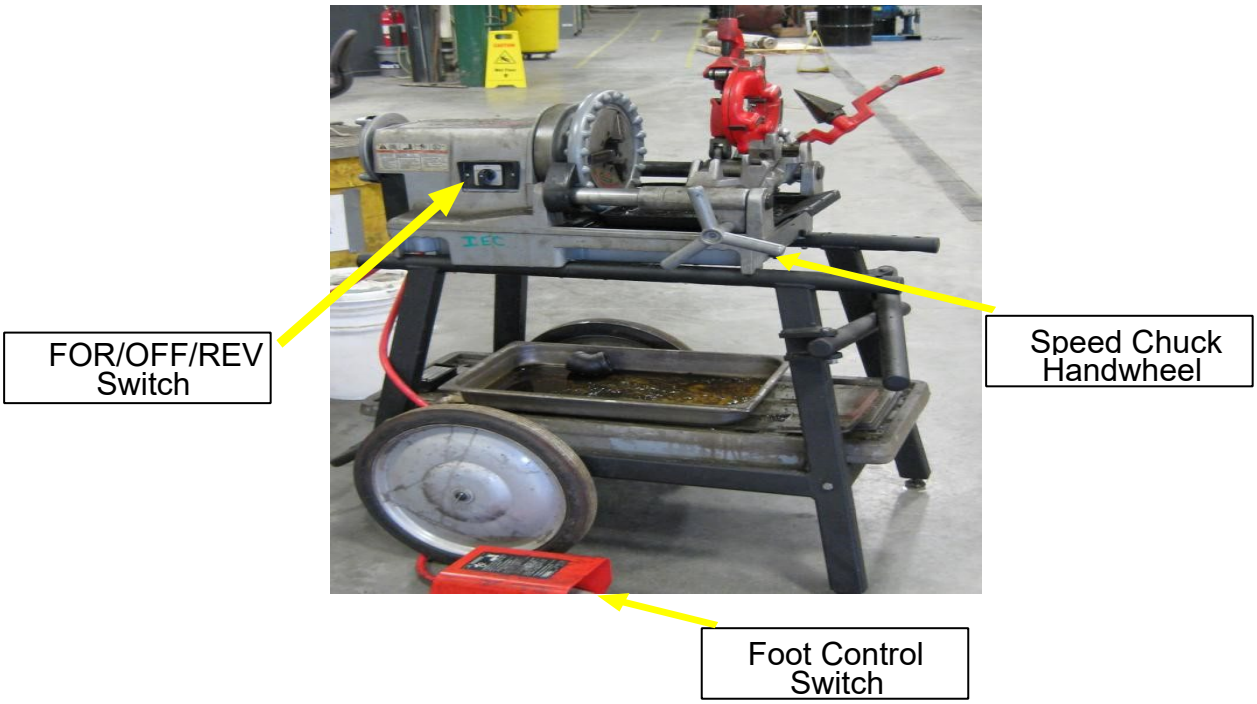
PPE REQUIREMENTS:

- Full length pants and full length sleeves
- CSA Grade 1 safety boots (green triangle).
- CSA or ANSI approved hard hats. ***See Westward PPE policy regarding Hard Hats.***
- CSA approved safety glasses complete with approved side shields. CSA approved wrap around safety glasses can be used over top of prescription glasses if not CSA approved.
- CSA approved leather gloves.
- Reflective vest and/or reflective wristlet. ***See PPE policy on High Visibility Apparel.***
- CSA approved Hearing protection when required. ***See Westward Noise Policy***.

All specialized personal protective equipment (i.e. fire resistant coveralls, grinding shields, chemical gloves, mono-goggles, etc.) shall be supplied if necessary. All employees shall use and maintain their own Personal Protective Equipment.

RIGID Pipe and Bolt Threading Machine

Description	Compact Pipe and Bolt Threading Machine
Size &/or Horse power	Up to 2” Pipe and Bolts / 1/2 HP
Power source	115 volt through power cord
Uses	Cutting, Threading, and Reaming of Pipe and Bolt Material



Hazards
Flying debris (potential eye damage)
Electrical shock
Amputation
Entanglement of hair or clothing
Training
Tools, Equipment, Machinery and Safeguards
Site Specific Training

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Protective Equipment
Safety glasses
Hearing protection
Avoid loose fitting clothing
Tie back long hair
Gloves
Steel toe boots
Site specific requirements

Operation

Startup

1. Put on PPE listed above
2. Ensure work area is clean and free of obstacles
3. Make necessary adjustments for safe operation
4. Add grease to moving components such as carriage, wheel, etc.
5. Position the foot switch for comfort of use and easy on/off
6. Inspect the tool for damage or obstructions to operation
7. Ensure work piece is securely fastened/tightened down
8. Depress and hold down the foot switch and select Forward (FOR) or Reverse (REV) to turn on the machine
9. Keep hands clear of all moving parts

Cutting Pipe

1. Swing reamer and die head to UP position
2. Move pipe cutter DOWN onto pipe and move carriage with hand wheel to line up cutter wheel with mark on pipe.
3. Tighten cutter feed screw handle on pipe keeping wheel aligned with the pipe
4. Flip the directional switch to FOR (Forward)
5. Grasp the pipe cutter's feed-screw handle with both hands and depress and hold down the foot-switch with the left foot
6. Tighten the feed-screw handle slowly and continuously until the pipe is cut. Do not force the cutter into the work piece.
7. Support the cut-off piece as it is being cut to prevent it from falling to the floor below (reduces damage to the floor surface)
8. Release the foot switch and remove your foot from the housing. Swing the pipe cutter back to its UP position

Reaming Pipe

1. Move reamer arm into DOWN position

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2. Check the directional switch to insure it is in the FOR (Forward) position. Depress and hold the foot switch down with left foot
3. Position reamer into pipe and complete reaming by exerting pressure on hand-wheel
4. Retract reamer and return reamer to UP position
5. Release foot switch and remove your foot from the housing

Threading Pipe or Rod

1. Install die set. Refer to the die installation procedure located in the Owner's Manual
2. Swing the cutter and reamer to their UP position
3. Swing the die head to DOWN position with the throw-out lever set to the CLOSE position
4. Check the directional switch to insure it is in the FOR (Forward) position. Depress and hold the foot switch down with your left foot
5. Turn the carriage hand-wheel to bring the dies against the end of pipe. Slight pressure on the hand-wheel will start the dies
6. Add oil to the cutting surface when threading the pipe
7. Turn the carriage hand-wheel to back die head off the pipe
8. Swing the die head back to the UP position

Removing Pipe from Machine

1. Use repeated and forceful clockwise spins of the speed chuck hand-wheel at the front of the machine to release the work-piece from the speed chuck jaws
2. If necessary, loosen the rear centering device using a clockwise rotation of the hand-wheel at the rear of the machine
3. Slide the work-piece out of the machine, keeping a firm grip on the work-piece as it clears

Installation of Dies

1. Refer to Owner's Manual for directions on installing dies

Shutdown

1. Release the foot switch and remove your foot from the housing and turn the power switch to OFF
2. Allow the machine to come to a complete stop before removing the work-piece

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Maintenance

Storage	Must be kept indoors or well covered in rainy weather.
Accessories	Adjusting key
Care	1. Do not use tool if switch does not turn it ON or OFF. 2. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. 3. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. 4. Use only accessories that are recommended by the manufacturer for your model. 5. Keep handles dry and clean; free from oil and grease. Check motor brushes every 6 months. Replace when worn to less than 1/2″

Section 11 JOB HAZARD ANALYSIS (JHA)

The following Job Hazard Analysis (JHA) / Job Procedures have been developed with the input of involved workers. They are the steps that need to be followed along with associated hazards and controls. Further general information is located in the Safe Work Practice (SWP) section. The following JHA's or Procedures have been developed:

- Driving
- Office Work
- Tire Changing
- Mobilization to Site
- Demobilization from site
- Fueling Equipment
- Pulling Cable with a Tugger
- Pulling Wire with a Fish Tape
- Megger Testing
- Install and Maintain Ductwork
- Perform Energy Efficiency Audits
- Installation of Thermostats and Control Systems
- Installation of Ventilation Equipment
- Transporting of Refrigerants
- Installation of Heating and Cooling Equipment
- Manual Handling of Loads (Heavy Lifting)
- Installing Conduit
- Electrical Systems Installation, Maintenance, and Upgrades
- Pulling Cable
- Installing and Maintaining Lighting Systems, Switches, and Wiring Devices
- Powered Mobile Equipment Use

**The safety information in this program does not take precedence over any applicable legislation.*

Job Inventory

Position	Position's Responsible For
President / CEO / COO	Everyone
VP Operations	Everyone
Controller	Accounting Clerk
Bus. Dev. Manager	Estimating / Estimator
Accounting Clerk	None
Estimating/Estimator	None
Regional Service Coordinator	Service Technicians
Regional Project Manager	Foreman / Lead Hand
Project Manager	Foreman / Lead Hand
NCSO	None
Foreman / Lead Hand	None
Electrical Technicians	None
HVAC Technicians	None

Tasks List

Job Position: President / CEO / COO

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓

Job Position: VP Operations

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

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Job Position: Controller

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: Bus. Dev. Manager

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: Estimating / Estimator

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: Regional Service Coordinator

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: Regional Project Manager

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

***The safety information in this program does not take precedence over any applicable legislation.*

Job Position: Project Manager

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: NCSO

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓

Job Position: Foreman / Lead Hand

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓
Mobilization to Site		✓
Demobilization from Site		✓
Fueling Equipment		✓
Pulling Cable with Tugger		✓
Pulling Wire with a Fish Tape		✓
Megger Testing	✓	✓

***The safety information in this program does not take precedence over any applicable legislation.*

Job Position: Electrical Technician

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓
Mobilization to Site		✓
Demobilization from Site		✓
Fueling Equipment		✓
Pulling Wire with Tugger		✓
Pulling Wire with a Fish Tape		✓
Megger Testing	✓	✓
Manual Handling of Loads (Heavy Lifting)	✓	✓
Installing Conduit	✓	✓
Electrical Systems Installation, Maintenance, and Upgrades	✓	✓
Pulling Cable	✓	✓
Installing and Maintaining Lighting Systems, Switches, and Wiring Devices	✓	✓
Powered Mobile Equipment Use	✓	✓

Job Position: HVAC Technician

Task	Critical	JHA completed
Driving	✓	✓
Office Work		✓
Tire Changing	✓	✓
Mobilization to Site		✓
Demobilization from Site		✓
Fueling Equipment		✓
Install and Maintain Ductwork	✓	✓
Perform Energy Efficiency Audits	✓	✓
Installation of Thermostats and Control Systems	✓	✓
Installation of Ventilation Equipment	✓	✓
Transporting of Refrigerants	✓	✓
Installation of Heating and Cooling Equipment	✓	✓
Powered Mobile Equipment Use	✓	✓

***The safety information in this program does not take precedence over any applicable legislation.*

Task	Critical	JHA completed
Working on Secondary of Equipment	✓	✓
Approaching a Cabinet of Unknown Voltage	✓	✓
Ohming and Meggering Energized Equipment	✓	✓

Hazard Priority Ranking

When a hazard assessment is started the hazards must first be identified, then classified or prioritized based on severity associated with the task or item.

The first ranking estimates the ***severity*** of the problem if the potential accident/incident were to occur:

1. Imminent Danger (e.g. causing death, widespread occupational illness, loss of facilities)
2. Serious (e.g. severe injury, serious illness, property and equipment damage)
3. Negligible/Ok (e.g. minor injury, requiring first aid or less)
4. Minor (e.g. non-serious injury, illness, or damage)

The second ranking estimates the ***probability*** (think in terms of risk assessment) of the accident/incident occurring:

A. Probable – Likely to occur immediately or soon
B. Reasonably probable – likely to occur eventually
C. Remote – could occur at some point
D. Extremely remote – unlikely to occur

	POTENTIAL SEVERITY			
PROBABILITY	1 – Imminent Danger	2 - Serious	3 - Minor	4 – Negligible/OK
A - Probable				
B – Reasonably Probable				
C - Remote				
D – Extremely Remote				
Ranking Values:				
Low Risk - No further action required				
Medium Risk - Risk controls must be in place and review potential for risk reduction if or when available				
High Risk - Immediate action should be taken if an action plan is feasible to reduce risk to a level as low as practicable. Risk controls and JHAs (Procedures) are required along with worker awareness, training and competency.				

***The safety information in this program does not take precedence over any applicable legislation.*

Formal Job Hazard Analysis / Procedure

Driving

This includes the following tasks:

- Driving on Highway
- Driving on dirt or gravel roads
- Fuelling
- Changing Tire
- Breakdown

In performing these tasks the worker is exposed to some hazards. These are:

- Traffic
- High speeds
- Weather
- Poor lighting
- Exhaustion (falling asleep while driving)

Personal Protective Equipment may include reflective vests when outside vehicle. Safety equipment may include flares and reflective triangles for breakdown situations.

Administrative Controls require all workers to be properly licensed to drive the type of vehicle they are driving. All vehicles must be equipped with a first aid kit.

Frequency: **Daily** Weekly Monthly Yearly

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Driving on Highway	Accident caused by others, weather conditions, inattentiveness	2 2 2	C C C		*Eng:* *Admin:* Be alert, stay overnight if too tired or poor weather, defensive driving courses, pay attention, do not drink or use drugs and drive, inspect vehicle prior to driving. *PPE:*	3 3 3	C C C	
2	Driving on dirt or gravel roads	Poor road conditions, washboard, large trucks driving in the centre of the road, dust clouds	2 1 2 2	C C C C		*Eng:* *Admin:* Use radio if it is a road requirement, slow down prior to turns and downhill slopes (this is where washboard conditions are most often), pull over and let vehicles pass (stay out of dust clouds) *PPE:*	3 2 3 2	C C D C	
3	Fuelling	Explosion, fumes	2	D		*Eng:* *Admin:* No smoking within 7.5m of pump, do not enter vehicle after pumping has begun – if necessary to re-enter the vehicle, ground yourself by touching metal. *PPE:*	2	D	
4	Changing Tire	Hit by other vehicle, crush of body parts	4 4	A B		*Eng:* block tires *Admin:* use flares or triangles, ensure jack sits securely, park on level ground, *PPE:* Wear reflective vest	4 3	C C	
5	Breakdown	Hit by other vehicle	4	B		*Eng:* *Admin:* use flares or triangles, pull far off the road *PPE:* Wear reflective vest	4	B	

***The safety information in this program does not take precedence over any applicable legislation.*

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
3.			
4.			
5.			

**The safety information in this program does not take precedence over any applicable legislation.*

Office Work

This involves all tasks completed in the office environment**.** Some basic tasks are:

- Answering telephones
- Working with the computer
- Writing Reports/Manuals/Proposals
- Using Photocopier/Fax Machine
- Filing
- Incoming/Outgoing Mail

In performing these tasks the worker is exposed to some hazards. These are:

- Eye strain
- Carpal Tunnel Syndrome
- Cuts
- Slips, Trips, Falls

Personal Protective Equipment is not required for conducting this work

Frequency: **Daily** Weekly Monthly Yearly

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Answering Telephones	Neck strain Harassment	4 3	D C		*Eng:* *Admin:* Hold the phone in your hand. Be calm and take notes if a caller is aggressive. *PPE:*	4 4	D C	

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
2	Working on the Computer	Eye strain, Carpal Tunnel Syndrome Fatigue	4 4 4	D D D		*Eng:* *Admin:* Take breaks from typing *PPE:*	4 4 4	D D D	
3	Using the Photocopier	Paper cuts, back issues	4	D		*Eng:* *Admin:* Use care, bend at the knees not back. *PPE:*	4	D	
4	Using the Fax Machine	Paper cuts	4	D		*Eng:* *Admin:* Use care *PPE:*	4	D	
5	Filing	Paper cuts, injuring finger in cabinets, cabinet tipping over	4 4 4	D D C		*Eng:* *Admin:* Use care Open only 1 drawer at a time *PPE:*	4 4 4	D D D	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
3.			
4.			
5.			

***The safety information in this program does not take precedence over any applicable legislation.*

Tire Changing

This includes the following tasks:

- Come to a complete stop in a safe location
- Block the wheels, as to ensure that the vehicle will not roll
- Jack vehicle
- Remove tire
- Put on new tire and lower Jack
- Clean up and drive away

In performing these tasks the worker is exposed to some hazards. These are:

- Hit by other vehicles
- Being seen
- Rolling vehicle
- Crush Potential
- Damage to vehicle
- Jack failing
- Tire gets stuck
- Tire Falls off while driving
- Leaving tools or equipment on road side

Personal Protective Equipment may include reflective vests when outside vehicle. Safety equipment may include flares and reflective triangles for breakdown situations.

Frequency: Daily Weekly Monthly **Yearly**

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Come to a complete stop in a safe location	Hit by other vehicles Not being seen.	3 3	D D		*Eng:* *Admin:* When experiencing a flat tire while driving, do not heavily apply the brake. Gently apply the brake and move to the side of the road. Park on level ground and turn off the engine. Turn on the hazard flashers and place flares as required. *PPE:* Wear reflective vest	4 4	D D	
2	Block the wheels, as to ensure that the vehicle will not roll.	Rolling vehicle. Crush potential.	2 2	D D		*Eng:* *Admin:* Always set the parking brake prior to jacking up the vehicle. *PPE:* Wear reflective vest	3 3	D 1	
3	Jack vehicle	Damage to vehicle. Jack falling.	2 2	D D		*Eng:* *Admin:* Always place the jack in the specified front or back jacking points. Never use a Jack All for tire changing. Use the appropriate jack. Never place any part of your body underneath the vehicle. *PPE:* Wear reflective vest	3 3	D D	
4	Remove tire	Tire might get stuck.	3	D		*Eng:* *Admin:* Only loosen the wheel nuts. Never remove the lug nuts until the tire is raised off the ground. *PPE:* Wear reflective vest	4	D	

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Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
5	Put on new tire and lower jack.	Tire falling off while driving.	3	D		*Eng:* *Admin:* Always ensure the lug nuts are snug prior to lowering the tire. Fully tighten the lug nuts after lowering the vehicle to the ground. *PPE:* Wear reflective vest	4	D	
6	Clean up and drive away	Leaving your tools (not having them for next time) or equipment on road side.	3	D		*Eng:* *Admin:* Always ensure that all tire changing equipment is put back to its original location Retighten lug after 50 km of driving. *PPE:* Wear reflective vest	4	D	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
3.			
4.			
5.			
6.			

***The safety information in this program does not take precedence over any applicable legislation.*

Mobilizing to Site

This involves the following tasks:

- Driving
- Determining site location, muster/meeting/emergency points at site
- Work Area Inspection before work begins
- Unloading and storage of equipment

In performing these tasks the worker is exposed to some hazards. These are:

- Body strain
- Driving JHA hazards
- Unfamiliarity with site
- Slips, Trips, Falls
- Other workers/trades in the area

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots

Frequency: **Daily** Weekly Monthly Yearly

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Driving	Please refer to Driving JHA Hazards	3	B		*Eng:* *Admin: Please refer to Driving JHA Controls* *PPE:*	3	C	

***The safety information in this program does not take precedence over any applicable legislation.*

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
2	Determining site location, muster/meeting/emergency points at site	Unfamiliarity with site, lost or wandering around in different areas	3	C		*Eng:* *Admin: Attend site orientations, FLHA should include these points to be reviewed with team* *PPE:*	4	C	
3	Work area inspection before unloading of equipment	Other trades working in the area.	3	C		*Eng:* *Admin: Attend site orientations, FLHA should include these points to be reviewed with team and communicated with other trades/workers in the area* *PPE:*	4	C	
4	Unloading and proper storage of equipment	Body strains. Pinches. Unexpected changes in the contact between feet and the walking surface.	3 3 3	C C C		*Eng: Clear walk path* *Admin: Use proper lifting techniques and take micro breaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required	3 3 4	C C C	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
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***The safety information in this program does not take precedence over any applicable legislation.*

Demobilization from Site

This involves the following tasks:

- Driving
- Loading of equipment
- Site inspection for area housekeeping, after loading is done

In performing these tasks the worker is exposed to some hazards. These are:

- Body strain
- Driving JHA hazards
- Slips, Trips, Falls
- Other workers/trades in the area

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots

Frequency: **Daily** Weekly Monthly Yearly

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Driving	Please refer to Driving JHA Hazards	3	B		*Eng:* *Admin: Please refer to Driving JHA Controls* *PPE:*	3	C	
2	Loading of equipment	Body strains. Pinches. Unexpected changes in the contact between feet and the walking surface	3 3 3	C C C		*Eng: Clear walk path* *Admin: Use proper lifting techniques and take micro breaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required	4 3 4	C C C	

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
3	Site inspection for area housekeeping	Other trades working in the area.	3	C		*Eng:* *Admin: FLHA should include these points to be reviewed with team and communicated with other trades/workers in the area* *PPE:*	4	C	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
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***The safety information in this program does not take precedence over any applicable legislation.*

Fueling Equipment

This involves the following tasks:

- Driving
- Shutting down/safing equipment
- Fueling
- Starting Equipment

In performing these tasks the worker is exposed to some hazards. These are:

- Exposure to chemicals
- Weather
- Flammable materials/chemicals
- Spills
- Slips, Trips, Falls
- Fumes

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots

Frequency: **Daily** Weekly Monthly Yearly

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability	Priority	Controls	Severity	Probability	Priority
1	Driving	Please refer to Driving JHA Hazards	3	B		*Eng:* *Admin: Please refer to Driving JHA Controls* *PPE:*	3	C	

***The safety information in this program does not take precedence over any applicable legislation.*

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability	Priority	Controls	Severity	Probability	Priority
2	Shutting Down Equipment	None	4	D		*Eng: Tagout vehicle with "Do not start"* *Admin:* *PPE:*	4	D	
3	Fueling	Flammable liquids/chemicals Spills Unexpected changes in the contact between feet and the walking surface Fumes	2 3 3 3	C C C C		*Eng: Use fuel from approved containers only and filler equipment (pumps, handles, etc…), have spill kit on hand* *Admin: Familiarize with SDS* *PPE: Wear SDS suggested PPE, and traction aids if required*	3 4 4 4	C C C C	
4	Starting Equipment	Engine backfire	3	C		*Eng:* *Admin: Follow operating instructions/manual provided with equipment* *PPE:*	4	C	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
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***The safety information in this program does not take precedence over any applicable legislation.*

Pulling Cable with Tugger

This involves the following tasks:

- Unloading the tugger
- Clear the cable path
- Attach the strain relief and cable
- Turn on the tugger and start the cable pull
- Complete the cable pull and turn off the tugger
- Site inspection for area housekeeping

In performing these tasks the worker is exposed to some hazards. These are:

- Body strain
- Pinch or crush points
- Clothing getting caught in moving part
- Chemicals
- Slips, Trips, Falls

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots.

Frequency: **Daily** Weekly Monthly Yearly

***The safety information in this program does not take precedence over any applicable legislation.*

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Unloading the tugger	Body strains. Pinches or crushing Unexpected changes in the contact between feet and the walking surface	3 3 3	C C C		*Eng: Clear walk path* *Admin: Use proper lifting techniques and take micro breaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required	4 4 3	C C C	
2	Clear the cable path	Unexpected changes in the contact between feet and the walking surface	3	C		*Eng:* *Admin:* *PPE:* Use traction aid if required	3	C	
4	Attach the strain relief and cable	Pinches or crushing	3	C		*Eng:* *Admin:* *PPE:* Wear appropriate gloves	4	C	
5	Turn on the tugger and start the cable pull	Clothing getting caught in moving parts	2	C		*Eng:* *Admin: Follow manufacturer manual for proper operation and inspection* *PPE:* Wear tight fitting clothing, gloves and steel toed boots. Use wristlets to keep sleeves out of the way of moving machinery.	3	C	
6	Complete the cable pull and turn off the tugger	Pinches or crushing Chemical exposure	3 3	C C		*Eng:* *Admin: Be aware of SDS of chemical lubricants used* *PPE:* Wear gloves and steel toed boots, use traction aid if required	3 3	C C	
7	Site inspection for area housekeeping	Body strains. Pinches or crushing Unexpected changes in the contact between feet and the walking surface	3 3 3	C C C		*Eng:* *Admin: Use proper lifting techniques and take micro breaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required	4 4 4	C C C	

***The safety information in this program does not take precedence over any applicable legislation.*

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
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Pulling Wire with Fish Tape

This involves the following tasks:

- Inspect the fish tape prior to use
- Attach the wire to the fish tape end, if required
- Follow Lockout Tag Out Procedure for any live circuits in conduit, if required
- Feed the fish tape into the conduit or wall space
- Pull the fish tape back with cable attached, if required
- Reel up fish tape back into holder

In performing these tasks the worker is exposed to some hazards. These are:

- Body strain
- Pinch points
- Cuts or scrapes
- Shock

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots

Frequency: **Daily** Weekly Monthly Yearly

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Inspect the fish tape prior to use	Cuts or scrapes	3	C		*Eng:* *Admin:* *PPE: Wear appropriate gloves*	4	C	

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
2	Attach wire to fish tape end, if required	Cuts or scrapes Pinch points	3 3	C C		*Eng:* *Admin:* *PPE:* Wear appropriate glove, eye protection and long sleeved shirt	4 4	C C	
3	Follow Lockout Tagout procedure for any live circuits in conduit, if required	Shock	2	C		*Eng: Proper labelling of electrical circuits (and verifying)* *Admin: Follow proper Lockout Tagout procedure and being competent in task (training course)* *PPE:*	3	C	
4	Feed the fish tape into the conduit or wall space	Cuts or scrapes Pinch points Body strain	3 3 3	C C C		*Eng:* *Admin: Take scheduled microbreaks* *PPE:* Wear appropriate glove, eye protection and long sleeve shirt	4 4 4	C C C	
5	Pull the fish tape back with cable attached, if required	Cuts or scrapes Pinch points Body strain	3 3 3	C C C		*Eng:* *Admin: Take scheduled microbreaks* *PPE:* Wear appropriate glove, eye protection and long sleeve shirt	4 4 4	C C C	
6	Reel up fish tape into holder	Fish tape end whipping uncontrolled	3	C		*Eng:* *Admin:* *PPE:* Wear appropriate glove, eye protection and long sleeve shirt	3	C	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			

***The safety information in this program does not take precedence over any applicable legislation.*

3.			
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Megger Testing

This involves the following tasks:

- De-energize the wire/cable being tested
- Attach the megger to the wire/cable
- Power up the Megger and run the insulation test
- Disconnect the megger from the wire/cable
- Re-energize the wire/cable

In performing these tasks the worker is exposed to some hazards. These are:

- Body strain
- Shock
- Cuts
- Weather
- Slips, Trips, Falls

Personal Protective Equipment required is hard hat, safety glasses, coveralls, steel toed boots

Frequency: **Daily** Weekly Monthly Yearly

***The safety information in this program does not take precedence over any applicable legislation.*

	Sequence of Steps	Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	De-Energize the wire/cable being tested	Shock	2	C		*Eng: Proper labelling of electrical circuits (and verifying)* *Admin: Follow proper Lockout Tagout procedure and being competent in task (training course)* *PPE:* Wear appropriate glove, eye protection and long-sleeved shirt	3 3 3	C C C	
2	Attach the megger to the wire/cable	Cuts or scrapes from hand tool use Adverse weather conditions Body Strain Unexpected changes in the contact between feet and the walking surface	3 4 3 3	C C C C		*Eng:* *Admin: Take scheduled microbreaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required	3 4 3 3	C C C C	
3	Power up the Megger and run the insulation test	Cuts or scrapes from hand tool use Adverse weather conditions use Body Strain Unexpected changes in the contact between feet and the walking surface	3 4 3 3	C C C C		*Eng:* *Admin: Take scheduled microbreaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required, dress according to weather conditions	3 4 3 3	C C C C	

***The safety information in this program does not take precedence over any applicable legislation.*

Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
4	Disconnect the megger from the wire/cable	Cuts or scrapes from hand tool use Adverse weather conditions use Body Strain Unexpected changes in the contact between feet and the walking surface	3 4 3 3	C C C C		*Eng:* *Admin: Take scheduled microbreaks* *PPE:* Wear gloves and steel toed boots, use traction aid if required, dress in layers	3 4 3 3	C C C C	
5	Re-energize the wire/cable	Shock	2	C		*Eng: Proper labelling of electrical circuits (and verifying)* *Admin: : Follow proper Lockout Tagout procedure and being competent in task (training course)* *PPE:* Wear appropriate glove, eye protection and long sleeved shirt	3	C	

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
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Install and Maintain Ductwork

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Unloading Ductwork	Slips, trips, falls; struck by or caught between objects; musculoskeletal disorders; Cuts	2	C	**Engineering**: Use mechanical aids (dollies, forklifts). **Administrative**: Clear loading area of debris, use proper lifting techniques, seek assistance for heavy loads. **PPE**: Hard hats, cut rated gloves, safety boots.	3	C
2. Establishing Work Control Area	Unauthorized access, interference from other workers	3	C	**Administrative**: Create controlled access area with caution tape, communicate operations with other workers.	4	D
3. Installing Hangers	Slips, trips, falls; struck by or caught between objects; electrical hazards; Ladders; AWP Use; Working at heights	2	C	**Engineering**: Use fall protection equipment, ensure proper lighting. **Administrative**: Clear work area of debris, de-energize electrical systems, use trained personnel for rigging, ensure level ground for ladder use. **PPE**: Hard hats, gloves, safety boots, fall arrest systems.	3	C
4. Installing Ductwork	Slips, trips, falls; struck by or caught between objects; overhead loads; electrical hazards, grinder use, sharp edges, AWP use, working at heights	2	C	**Engineering**: Use mechanical aids, secure loads before lifting. **Administrative**: Clear work area, de-energize electrical systems, use trained personnel for rigging. **PPE**: Hard hats ,cut rated gloves, safety boots, eye protection, fall arrest systems, face shield w/ glasses for grinder use,	3	C
5. Testing Ductwork	Slips, trips, falls; exposure to contaminants, sharp edges, drill use,	3	2	**Engineering**: Ensure proper ventilation. **Administrative**: Clear work area, follow testing procedures, fall arrest, equipment inspections. **PPE**: Hard hats, cut rated gloves, safety boots,	2	1

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Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
	working at heights, awp use			respiratory protection if needed.		

Compliance with Legislation

- **Alberta OHS Legislation**:
  - Ensure compliance with Alberta's OHS Code, which includes regulations on hazardous substances and emergency preparedness
  - Develop and implement emergency response plans for any incidents.
- **CSA Standards**:
  - Follow CSA standards for the safe design, construction, installation, and maintenance of HVAC systems.
- **NSC Standard 10**:
  - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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***The safety information in this program does not take precedence over any applicable legislation.*

Perform Energy Efficiency Audits

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Locate hvac equipment and leakage points	Slips, trips, falls; ladders	3	C	**Engineering**: Permanently installed ladder and/or stairs **Administrative**: correct location and equipment information/documentation. **PPE**: Hard hats, cut rated gloves, safety boots, fall arrest if required.	3	D
2. Inspect HVAC Equipment	Slips, trips, falls, ladders, electric shock, sharp edges	3	C	**Administrative**: De-energize/isolate control circuits, verify zero energy **PPE:** hard hat, gloves, safety glasses.	4	D
3. Conduct Blower Door Test	Pinch points, moving parts	3	C	**Administrative:** Maintain clearance to blower, ensure blower is not energized until clear of unit, use caution when operating doors that may be under heavy negative pressure **PPE:** hard hat, gloves, safety glasses	3	D
3. Measure and inspect building construction, insulation, and leakage points	Slips, trips, falls, ladders	3	C	**Administrative**: Ensure level ground for ladder use, maintain 3 point contact on ladders **PPE:** hard hat, gloves, safety glasses.	3	D

Compliance with Legislation

- **Alberta OHS Legislation**:
    - Ensure compliance with Alberta's OHS Code, which includes regulations on hazardous substances and emergency preparedness

***The safety information in this program does not take precedence over any applicable legislation.*

- Develop and implement emergency response plans for any incidents.

- **CSA Standards**:
  - Follow CSA standards for the safe design, construction, installation, and maintenance of HVAC systems.
- **NSC Standard 10**:
  - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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Installation of Thermostats and Control Systems

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Locate and verify control/ thermostat locations	Slips, trips, falls; ladders	3	C	**Engineering**: Permanently installed ladder and/or stairs **Administrative**: correct wiring and location information/documentation. **PPE**: Hard hats, cut rated gloves, safety boots, fall arrest if required.	3	D
2. Install thermostat/ controls	Slips, trips, falls, ladders, electric shock, sharp edges	3	C	**Administrative**: De-energize/isolate control circuits, verify zero energy **PPE:** hard hat, gloves, safety glasses	4	D
3. Testing thermostat/ controls	Slips, trips, falls, electric shocks,	2	C	**Administrative**: follow equipment manufacturer testing procedure, isolate electrical when required, ensure use of proper gloves and rated meter when testing low voltage controls	3	C

Compliance with Legislation

- **Alberta OHS Legislation**:
  - Ensure compliance with Alberta's OHS Code, which includes regulations on hazardous substances and emergency preparedness
  - Develop and implement emergency response plans for any incidents.

- **CSA Standards**:
  - Follow CSA standards for the safe design, construction, installation, and maintenance of HVAC systems.

***The safety information in this program does not take precedence over any applicable legislation.*

- **NSC Standard 10**:
    - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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Installation of Ventilation Equipment

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Unloading Ventilation Equipment	Slips, trips, falls; struck by or caught between objects; musculoskeletal disorders; Cuts	2	C	**Engineering**: Use mechanical aids (dollies, forklifts). **Administrative**: Clear loading area of debris, use proper lifting techniques, seek assistance for heavy loads. **PPE**: Hard hats, cut rated gloves, safety boots.	3	C
2. Establishing Work Control Area	Unauthorized access, interference from other workers	3	C	**Administrative**: Create controlled access area with caution tape, communicate operations with other workers.	4	D
3. Placement of Equipment	Slips, trips, falls; struck by or caught between objects; overhead loads, electric shocks, working at heights	2	C	**Engineering**: Use fall protection equipment, ensure proper lighting. **Administrative**: Clear work area of debris, de-energize electrical systems, use trained personnel for rigging, control zone if near roof edge **PPE**: Hard hats, gloves, safety boots, fall arrest systems.	3	C
4. Connection of duct and electrical systems	Slips, trips, falls; electrical hazards, grinder use, sharp edges, AWP use, working at heights	2	B	**Engineering**: Use mechanical aids, secure loads before lifting, gas detector. **Administrative**: Clear work area, de-energize electrical systems, use trained personnel for rigging. **PPE**: Hard hats, cut rated gloves, safety boots, eye protection, fall arrest systems, face shield w/ glasses for grinder use, multimeter.	3	C
5. Testing Equipment	Slips, trips, falls; electric shocks, moving parts, pinch points	2	B	**Engineering**: Ensure proper ventilation, gas/refrigerant detector **Administrative**: Clear work area, follow testing procedures, de-energize when required **PPE**: Hard hats, cut rated gloves, safety boots	3	C

***The safety information in this program does not take precedence over any applicable legislation.*

Compliance with Legislation

- **Alberta OHS Legislation**:
  - Ensure compliance with Alberta's OHS Code, which includes regulations on hazardous substances and emergency preparedness
  - Develop and implement emergency response plans for any incidents.
- **CSA Standards**:
  - Follow CSA standards for the safe design, construction, installation, and maintenance of HVAC systems.
- **NSC Standard 10**:
  - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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Transporting of Refrigerants

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Transporting Refrigerants	Exposure to toxic chemicals, physical injuries from handling heavy cylinders, risk of leaks or spills	2	C	**Engineering**: Use mechanical aids (dollies, carts) to transport cylinders. **Administrative**: Use appropriate PPE, ensure proper labeling and secure storage of cylinders, inspect cylinders for leaks before transport, secure cylinders **PPE**: Gloves, safety glasses.	3	D
2. Storing Refrigerants	Fire or explosion risk, chemical exposure, inadequate ventilation	2	C	**Engineering**: Store cylinders in a well-ventilated area away from heat sources. **Administrative**: Keep storage area clean and free of combustible materials, ensure proper labeling and segregation of different types of refrigerants, regularly inspect storage area for compliance with safety standards. **PPE**: Gloves, safety glasses.	3	D
3. Using Refrigerants	Exposure to toxic chemicals, risk of frostbite from contact with refrigerants, fire or explosion risk	2	B	**Engineering**: Ensure proper ventilation in the work area. Low loss fittings **Administrative**: Follow manufacturer's instructions for handling and usage, use leak detection equipment to monitor for refrigerant leaks, inspect hoses for damage **PPE**: Gloves, safety glasses, face shields.	3	2

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Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
4. Compliance with Legislation	Non-compliance with regulations	2	B	**Administrative**: Ensure compliance with Alberta OHS Code, CSA B52-13, TDG Regulations, and NSC Standard 10. Develop and implement emergency response plans for refrigerant leaks or spills.	3	D
5. Training and Communication	Lack of knowledge or awareness	2	C	**Administrative**: Provide comprehensive training for workers on safe handling procedures, emergency response, and the use of PPE. Conduct regular refresher training sessions. Clearly communicate the JHA to all employees involved in handling refrigerants.	3	D
6. Review and Update	Outdated procedures or equipment, new refrigerant coming to market	2	C	**Administrative**: Regularly review and update the JHA to reflect any changes in procedures, equipment, or regulations. Conduct periodic safety audits.	3	D

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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***The safety information in this program does not take precedence over any applicable legislation.*

Installation of Heating and Cooling Equipment

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Unloading HVAC Equipment	Slips, trips, falls; struck by or caught between objects; musculoskeletal disorders; Cuts	2	C	**Engineering**: Use mechanical aids (dollies, forklifts). **Administrative**: Clear loading area of debris, use proper lifting techniques, seek assistance for heavy loads. **PPE**: Hard hats, cut rated gloves, safety boots.	3	C
2. Establishing Work Control Area	Unauthorized access, interference from other workers	3	C	**Administrative**: Create controlled access area with caution tape, communicate operations with other workers.	4	D
3. Placement of Equipment	Slips, trips, falls; struck by or caught between objects; overhead loads, electric shocks, working at heights	2	C	**Engineering**: Use fall protection equipment, ensure proper lighting. **Administrative**: Clear work area of debris, de-energize electrical systems, use trained personnel for rigging, control zone if near roof edge **PPE**: Hard hats, gloves, safety boots, fall arrest systems.	3	C
4. Connection of gas, refrigerant, duct and electrical systems	Slips, trips, falls; electrical hazards, grinder use, sharp edges, AWP use, working at heights, pressurized gas	2	B	**Engineering**: Use mechanical aids, secure loads before lifting, gas detector. **Administrative**: Clear work area, de-energize electrical systems, depressurize and safe gas systems, use trained personnel for rigging. **PPE**: Hard hats, cut rated gloves, safety boots, eye protection, fall arrest systems, face shield w/ glasses for grinder use, multimeter	3	C

***The safety information in this program does not take precedence over any applicable legislation.*

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
5. Testing Equipment	Slips, trips, falls; electric shocks, flammable gas, moving parts, pinch points	2	B	**Engineering**: Ensure proper ventilation, gas/refrigerant detector **Administrative**: Clear work area, follow testing procedures, de-energize when required, test for refrigerant and gas leaks, **PPE**: Hard hats, cut rated gloves, safety boots	3	C

Compliance with Legislation

- **Alberta OHS Legislation**:
  - Ensure compliance with Alberta's OHS Code, which includes regulations on hazardous substances and emergency preparedness
  - Develop and implement emergency response plans for any incidents.
- **CSA Standards**:
  - Follow CSA standards for the safe design, construction, installation, and maintenance of HVAC systems.
- **NSC Standard 10**:
  - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

Outstanding Implementation	Assigned to	Expected Completion Date
1.		
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***The safety information in this program does not take precedence over any applicable legislation.*

Manual Handling of Loads (Heavy Lifting)

Job Information

- **Job Title**: Manual Handling of Loads (Heavy Lifting)
- **Location**: [Specify Location]
- **Date**: [Specify Date]
- **Prepared By**: [Your Name]

Job Steps, Hazards, and Controls

Job Step	Potential Hazard	Preventive Measure
1. Assess the load	- Strain or sprain from lifting heavy or awkward loads	- Use mechanical aids (e.g., forklifts, dollies) whenever possible. - Ensure the load is stable and balanced.
2. Plan the lift	- Poor posture leading to back injury	- Plan the route and clear any obstacles. - Use proper lifting techniques (e.g., bend knees, keep back straight).
3. Lift the load	- Dropping the load causing injury	- Get help from a coworker for heavy or bulky items. - Ensure a firm grip and lift smoothly.
4. Carry the load	- Tripping or slipping while carrying the load	- Wear appropriate footwear with good traction. - Keep the load close to the body and avoid twisting movements.
5. Set down the load	- Injury from setting down the load improperly	- Lower the load slowly, bending the knees. - Ensure the area is clear and stable for setting down the load.

Additional Considerations

- **Training**: Ensure all workers are trained in proper lifting techniques and the use of mechanical aids.
- **Personal Protective Equipment (PPE)**: Provide gloves, back supports, and other necessary PPE.
- **Emergency Procedures**: Have a plan in place for handling injuries or accidents.

Review and Approval

- **Reviewed By**: [Supervisor's Name]

***The safety information in this program does not take precedence over any applicable legislation.*

- **Date**: [Review Date]
- **Approved By**: [Manager's Name]
- **Date**: [Approval Date]

***The safety information in this program does not take precedence over any applicable legislation.*

Installing Conduit

Job Information

- **Job Title**: Installing Conduit
- **Location**: Westward Electric Site Services Ltd. ALL Locations
- **Date**: November 29, 2024.
- **Prepared By**: Jamie Mcilvenna and Zach Mitchell

Job Steps, Hazards, and Controls

Job Step	Potential Hazard	Preventive Measure
1. Assess the work area	- Tripping hazards, electrical hazards	- Conduct a site inspection to identify and remove tripping hazards. - Ensure all electrical sources are de-energized and locked out/tagged out (OHS Code, Part 15)
2. Gather materials and tools	- Strains from lifting heavy materials	- Use proper lifting techniques and mechanical aids. - Ensure materials are stored safely to prevent falls (OHS Code, Part 14)
3. Measure and mark conduit path	- Inaccurate measurements leading to rework	- Double-check measurements and use appropriate marking tools.
4. Cut conduit to length	- Cuts from sharp edges, noise exposure	- Wear cut-resistant gloves and safety glasses. - Use hearing protection if noise levels exceed 85 dB (OHS Code, Part 16)
5. Install conduit supports	- Falling objects, working at heights	- Secure tools and materials to prevent falls. - Use fall protection equipment if working above 3 meters (OHS Code, Part 9)
6. Secure conduit in place	- Pinch points, repetitive strain injuries	- Use tools with ergonomic handles. - Take regular breaks to avoid repetitive strain.
7. Inspect installation	- Missed defects, incomplete installation	- Conduct a thorough inspection to ensure all conduit is properly secured and meets specifications.

Additional Considerations

- **Training**: Ensure all workers are trained in safe work practices and the use of personal protective equipment (PPE).

***The safety information in this program does not take precedence over any applicable legislation.*

- **Personal Protective Equipment (PPE)**: Provide and enforce the use of hard hats, safety glasses, gloves, and hearing protection as needed.
- **Emergency Procedures**: Have a plan in place for handling injuries or accidents, including first aid and emergency contact information.

Review and Approval

- **Reviewed By**: [Supervisor's Name]
- **Date**: [Review Date]
- **Approved By**: [Manager's Name]
- **Date**: [Approval Date]

Alberta Occupational Health and Safety Code: Part 9, 14, 15 & 16

***The safety information in this program does not take precedence over any applicable legislation.*

Electrical Systems Installation, Maintenance, and Upgrades

Job Information

- **Job Title**: Install, Maintain & Upgrade Switchgear, Motor Control Centers, Transformers, Panels & Electrical Systems
- **Location**: [Specify Location]
- **Date**: [Specify Date]
- **Prepared By**: [Your Name]

Job Steps, Hazards, and Controls

Job Step	Potential Hazard	Preventive Measure
1. Assess the work area	- Electrical hazards, tripping hazards	- Conduct a site inspection to identify and remove tripping hazards. - Ensure all electrical sources are de-energized and locked out/tagged out (OHS Code, Part 15).
2. Gather materials and tools	- Strains from lifting heavy materials	- Use proper lifting techniques and mechanical aids. - Ensure materials are stored safely to prevent falls (OHS Code, Part 14).
3. Install switchgear and motor control centers	- Electrical shock, arc flash	- Wear appropriate PPE including insulated gloves and face shields. - Follow safe work procedures and ensure proper grounding (OHS Code, Part 19).
4. Install transformers and panels	- Heavy lifting, electrical hazards	- Use lifting equipment for heavy components. - Ensure proper lockout/tagout procedures are followed (OHS Code, Part 15).
5. Connect electrical systems	- Electrical shock, burns	- Verify de-energization with a voltage tester. - Use insulated tools and wear flame-resistant clothing (OHS Code, Part 19).
6. Test and commission systems	- Unexpected energization, equipment failure	- Follow commissioning procedures and use proper testing equipment. - Ensure all safety protocols are in place before energizing systems (OHS Code, Part 19).
7. Perform maintenance and	- Electrical hazards, falls	- De-energize and lockout/tagout equipment before

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Job Step	Potential Hazard	Preventive Measure
upgrades		maintenance. - Use fall protection when working at heights (OHS Code, Part 9).
8. Inspect and document work	- Missed defects, incomplete documentation	- Conduct thorough inspections and ensure all work is documented accurately. - Use checklists to verify all steps are completed.

Additional Considerations

- **Training**: Ensure all workers are trained in electrical safety, proper use of PPE, and safe work practices.
- **Personal Protective Equipment (PPE)**: Provide and enforce the use of hard hats, safety glasses, insulated gloves, face shields, flame-resistant clothing, and hearing protection as needed.
- **Emergency Procedures**: Have a plan in place for handling electrical injuries or accidents, including first aid and emergency contact information.

Review and Approval

- **Reviewed By**: [Supervisor's Name]
- **Date**: [Review Date]
- **Approved By**: [Manager's Name]
- **Date**: [Approval Date]

Alberta Occupational Health and Safety Code: parts 9, 14, 15 & 19.

***The safety information in this program does not take precedence over any applicable legislation.*

Pulling Cable

Job Information

- **Job Title**: Pulling Cable
- **Location**: Westward Electric Site Services Ltd. ALL Sites
- **Date**: November 29, 2024.
- **Prepared By**: Jamie Mcilvenna, Zach Mitchell, Matt Shapter

Job Steps, Hazards, and Controls

Job Step	Potential Hazard	Preventive Measure
1. Assess the work area	- Tripping hazards, electrical hazards	- Conduct a site inspection to identify and remove tripping hazards. - Ensure all electrical sources are de-energized and locked out/tagged out (OHS Code, Part 15)
2. Gather materials and tools	- Strains from lifting heavy materials	- Use proper lifting techniques and mechanical aids. - Ensure materials are stored safely to prevent falls (OHS Code, Part 14)
3. Measure and mark cable path	- Inaccurate measurements leading to rework	- Double-check measurements and use appropriate marking tools.
4. Set up cable pulling equipment	- Equipment failure, electrical hazards	- Inspect all equipment before use to ensure it is in good condition. - Follow manufacturer's instructions for setup and use (OHS Code, Part 19)
5. Pull cable through conduit	- Strains, sprains, and musculoskeletal injuries	- Use mechanical aids and proper body mechanics. - Rotate tasks among workers to prevent repetitive strain (OHS Code, Part 14)
6. Secure and terminate cable	- Electrical shock, cuts from sharp edges	- Wear appropriate PPE including insulated gloves and safety glasses. - Ensure proper grounding and follow lockout/tagout procedures (OHS Code, Part 15)
7. Inspect and test installation	- Missed defects, incomplete installation	- Conduct a thorough inspection and testing to ensure all cables are properly installed and functioning.

Additional Considerations

- **Training**: Ensure all workers are trained in safe work practices, proper use of PPE, and the specific procedures for pulling cable.

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- **Personal Protective Equipment (PPE)**: Provide and enforce the use of hard hats, safety glasses, insulated gloves, and other necessary PPE.
- **Emergency Procedures**: Have a plan in place for handling injuries or accidents, including first aid and emergency contact information.

Review and Approval

- **Reviewed By**: [Supervisor's Name]
- **Date**: [Review Date]
- **Approved By**: [Manager's Name]

1: Alberta Occupational Health and Safety Code, Part 15.
2: Alberta Occupational Health and Safety Code, Part 14.
3: Alberta Occupational Health and Safety Code, Part 19.

***The safety information in this program does not take precedence over any applicable legislation.*

Installing and Maintaining Lighting Systems, Switches, and Wiring Devices

Job Information

- **Job Title**: Install and Maintain Lighting Systems, Switches, and Wiring Devices
- **Location**: [Specify Location]
- **Date**: [Specify Date]
- **Prepared By**: [Your Name]

Job Steps, Hazards, and Controls

Job Step	Potential Hazard	Preventive Measure
1. Assess the work area	- Tripping hazards, electrical hazards	- Conduct a site inspection to identify and remove tripping hazards. - Ensure all electrical sources are de-energized and locked out/tagged out (OHS Code, Part 15)
2. Gather materials and tools	- Strains from lifting heavy materials	- Use proper lifting techniques and mechanical aids. - Ensure materials are stored safely to prevent falls (OHS Code, Part 14)
3. Install lighting systems	- Electrical shock, falls from heights	- Use insulated tools and wear appropriate PPE including insulated gloves and safety glasses. - Use fall protection equipment when working at heights (OHS Code, Part 9)
4. Install switches and wiring devices	- Electrical shock, cuts from sharp edges	- Follow proper lockout/tagout procedures. - Wear cut-resistant gloves and safety glasses (OHS Code, Part 15)
5. Connect and test electrical systems	- Electrical shock, burns	- Verify de-energization with a voltage tester. - Use insulated tools and wear flame-resistant clothing (OHS Code, Part 19).
6. Perform maintenance and upgrades	- Electrical hazards, repetitive strain injuries	- De-energize and lockout/tagout equipment before maintenance. - Use ergonomic tools and take regular breaks to avoid repetitive strain (OHS Code, Part 14)

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Job Step	Potential Hazard	Preventive Measure
7. Inspect and document work	- Missed defects, incomplete documentation	- Conduct thorough inspections and ensure all work is documented accurately. - Use checklists to verify all steps are completed.

Review and Approval

- **Reviewed By**: [Supervisor's Name]
- **Date**: [Review Date]
- **Approved By**: [Manager's Name]
- **Date**: [Approval Date]

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Powered Mobile Equipment Use

Sequence of Steps	Potential Accidents or Hazards	Severity	Probability	Controls	Severity (After Controls)	Probability (After Controls)
1. Pre-Operation Inspection	**Equipment malfunction, slips, trips, falls**	**2**	**C**	**Engineering: Ensure equipment is in good working condition. Administrative: Conduct visual inspections, follow manufacturer's guidelines. PPE: Safety boots, gloves.**	**3**	**D**
2. Mounting/Dismounting Equipment	**Slips, trips, falls**	**2**	**C**	**Engineering: Use steps and handrails. Administrative: Maintain three points of contact. PPE: Safety boots, gloves.**	**3**	**D**
3. Operating Equipment	**Collision, rollover, struck by objects, musculoskeletal disorders**	**1**	**B**	**Engineering: Use seat belts, ROPS/FOPS. Administrative: Operator training, follow safe operating procedures, maintain clear communication. PPE: Hard hats, safety boots, high-visibility clothing.**	**2**	**C**
4. Refueling	**Fire, explosion, chemical exposure**	**1**	**C**	**Engineering: Use proper refueling equipment. Administrative: Follow refueling procedures, no smoking. PPE: Gloves, safety goggles.**	**2**	**D**
5. Parking and Securing Equipment	**Unintended movement, unauthorized use**	**2**	**C**	**Engineering: Use parking brakes, wheel chocks. Administrative: Secure keys, follow shutdown procedures. PPE: Safety boots, gloves.**	**3**	**D**

Compliance with Legislation

- Alberta OHS Legislation:
  - Ensure compliance with Alberta's OHS Code, Part 19, which includes regulations on operator responsibilities, visual inspections, and maintenance of powered mobile equipment[1][2].

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- Develop and implement emergency response plans for any incidents.

- CSA Standards:
  - Follow CSA standards for the safe design, construction, and maintenance of powered mobile equipment.
  - CSA Standard B335-15: Safety standard for lift trucks.
- NSC Standard 10:
  - Follow the National Safety Code Standard 10 for cargo securement, ensuring all materials are properly secured during transport.

Follow Up

	Outstanding Implementation	Assigned to	Expected Completion Date
1.			
2.			
3.			
4.			
5.			

References

[1] Powered Mobile Equipment | Occupational Health and Safety Legislation
[2] Part 19 Powered Mobile Equipment - Alberta.ca

***The safety information in this program does not take precedence over any applicable legislation.*

Working on Secondary of Equipment

Purpose
To ensure the safety of HVAC mechanics working on low voltage equipment up to 600V by outlining key information needed to address arc flash hazards, the use of appropriate personal protective equipment (PPE) such as Arc Rated Clothing, (cal suits), and compliance with relevant legislation and standards.

Scope
This procedure applies to all HVAC mechanics in Alberta who work on low voltage equipment up to 600V.

Legislation and Standards
- **Provincial OHS Legislation**: Alberta's Occupational Health and Safety (OHS) Act, Regulation, and Code provide the legislative framework for workplace health and safety.
- **CSA Standards**: Relevant standards include CSA Z462 (Workplace Electrical Safety) and CSA Z94.3 (Eye and Face Protectors).
- **Industry Best Practices**: Follow guidelines from industry bodies such as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the National Fire Protection Association (NFPA).

Hazard Identification and Risk Assessment
- Conduct a thorough risk assessment before starting any work on low voltage equipment.
- Identify potential hazards such as electric shock, arc flash, and equipment failure.
- Identify potential mechanical hazards such as rotating equipment, sharp edges, and unguarded rotating equipment.

Personal Protective Equipment (PPE)
- **Arc Flash Protection**: Use arc-rated clothing (cal suits) that meets CSA Z462 standards. Refer to the chart below for specific ratings and protection levels.
- **Undergarments**: Wear natural fibre clothing, long sleeve/long pants.

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Arc Flash Category	Minimum Arc Rating (cal/cm²)	Typical Voltage Range	Required PPE
Category 1	4 cal/cm²	Up to 240V	FR-rated long sleeve shirt, pants, face shield, safety glasses, hearing protection
Category 2	8 cal/cm²	240V to 480V	FR-rated long sleeve shirt, pants, arc flash suit hood or face shield, balaclava, heavy-duty leather gloves, safety glasses, hearing protection
Category 3	25 cal/cm²	480V to 600V	Arc-rated suit jacket, pants, coveralls, arc flash suit hood, rubber insulating gloves with leather protectors, safety glasses, hearing protection
Category 4	40 cal/cm²	Above 600V	Arc-rated suit jacket, pants, coveralls, arc flash suit hood, rubber insulating gloves with leather protectors, safety glasses, hearing protection

- **Insulated Gloves**: Wear high voltage-rated gloves to protect against electric shock.
- **Face and Eye Protection**: Use face shields and safety glasses that comply with CSA Z94.3.
- **Foot Protection**: Wear electrically insulated boots. Inspect soles regularly for conductive penetrations such as screws and metal shards.

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Sequence of Steps		Potential Accidents or Hazards	Severity	Probability		Controls	Severity	Probability	
1	Conduct risk assessment before starting work	Electric shock, arc flash, equipment failure	2	A		Use insulated gloves, arc-rated clothing, and face shields	3	C	
2	Inspect equipment for mechanical hazards	Rotating equipment, sharp edges, unguarded parts	2	B		Ensure all guards are in place, use appropriate PPE	3	C	
3	Wear appropriate PPE	Inadequate protection leading to injury	2	A		Follow CSA Z462 standards for arc-rated clothing, wear natural fibre undergarments	3	C	
4	Verify voltage levels before work	Incorrect voltage leading to arc flash	1	B		Use voltage-rated tools and equipment, verify voltage levels	3	C	
5	Follow lockout/tagout procedures	Accidental energization of equipment	1	A		Implement lockout/tagout procedures, use warning signs	3	C	

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Safe Work Practices

- **Lockout/Tagout (LOTO)**: **DO** ensure all low voltage equipment is de-energized and locked out before starting work.
- **Maintain Safe Distances**: **DO** follow safe distance guidelines as specified in CSA Z462.
- **Use Insulated Tools**: **DO** only use tools rated for low voltage work.
- **Buddy System**: **DO** always work with a partner when dealing with low voltage equipment.
- **Live Equipment**: **DO NOT** do resistance tests on Live Equipment.
- **Megger: DO NOT** Megger Live Equipment.

Training and Competency

- Ensure all HVAC mechanics receive training on low voltage safety, including the use of PPE and emergency response procedures.
- Regularly update training to stay current with new safety standards and practices.

Emergency Procedures

- **Arc Flash Incident**: In case of an arc flash, immediately evacuate the area and follow emergency response protocols.(Site specific).
- **Electric Shock**: Administer first aid and seek medical attention immediately.

Documentation and Compliance

- Maintain records of all risk assessments, training sessions, and PPE inspections.
- Regularly review and update safe job procedures to ensure compliance with the latest legislation and standards.

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Approaching a Cabinet of Unknown Voltage

1. Purpose
To ensure the safety of HVAC mechanics when approaching and working on a cabinet of unknown voltage by outlining a step-by-step procedure.
2. Scope
This procedure applies to all HVAC mechanics in Alberta who may encounter cabinets with unknown voltage.
3. Legislation and Standards

- **Provincial OHS Legislation**: Alberta's Occupational Health and Safety (OHS) Act, Regulation, and Code.
- **CSA Standards**: CSA Z462 (Workplace Electrical Safety) and CSA Z94.3 (Eye and Face Protectors).
- **Industry Best Practices**: Guidelines from ASHRAE and NFPA.

4. Procedure

1. **Preparation**
    - **Training**: Ensure you have received training aka an Arc Flash Training Course through an Accredited provider / Industry Expert. on voltage safety and the use of PPE.
    - **PPE**: Wear appropriate PPE including arc-rated clothing (cal suits), insulated gloves, face shield, safety glasses, and electrically insulated boots.
2. **Initial Assessment**
    - **Visual Inspection**: Conduct a visual inspection of the cabinet for any signs of damage, labels indicating voltage, or other hazards.
    - **Risk Assessment**: Perform a risk assessment to identify potential hazards such as electric shock or arc flash.
3. **Establish Safe Work Area**

***The safety information in this program does not take precedence over any applicable legislation.*

- **Barricade Area**: Set up barriers and warning signs to keep unauthorized personnel away.
- **Buddy System**: Ensure you have a partner present for safety and you have discussed hang up procedure.

4. **Verify Voltage**
   - **Meter:** Ensure meter is rated for supply voltage.
   - **3 – Step Testing:** Test on known source, test suspect source, test known source again.
   - **Lockout/Tagout (LOTO)**: When necessary, work in a de-energized state. Ensure all energy sources are isolated and locked out even in the absence of voltage.
5. **Confirm De-Energization**
   - **Test Equipment**: Use a multimeter or voltage tester to confirm that the cabinet is de-energized. Test on a known live source before and after testing the cabinet to ensure the tester is working correctly.
6. **Safe Access**
   - **Insulated Tools**: Use insulated tools to open the cabinet and perform any necessary work.
   - **Maintain Safe Distances**: Follow safe distance guidelines as specified in CSA Z462.
7. **Perform Work**
   - **Follow Procedures**: Adhere to all safe work practices and procedures while performing tasks inside the cabinet.
   - **Monitor Conditions**: Continuously monitor the work environment for any changes or new hazards.
8. **Completion**

***The safety information in this program does not take precedence over any applicable legislation.*

- **Re-energize Equipment**: Once work is completed, follow proper procedures to re-energize the equipment if necessary. Utilize the Left-hand Rule - Stand to the right of the equipment face away from it and use your left hand to operate the handle.
- **Remove Barricades**: Take down barriers and warning signs once the area is safe.

9. **Documentation**
    - **Record Keeping**: Document the risk assessment, LOTO procedures, and any incidents or observations during the task.

5. Emergency Procedures

- **Arc Flash Incident**: In case of an arc flash, immediately evacuate the area and follow emergency response protocols for the area.
- **Electric Shock**: Administer first aid and seek medical attention immediately.

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Ohming and Meggering Energized Equipment

1. Purpose
To ensure the safety of HVAC mechanics when performing insulation resistance testing (meggering) and continuity testing (ohming) on energized equipment, in compliance with Alberta's OHS legislation and CSA standards.

2. Scope
This procedure applies to all HVAC mechanics in Alberta who need to perform ohming and meggering on energized equipment.

3. Legislation and Standards

- **Provincial OHS Legislation**: Alberta's Occupational Health and Safety (OHS) Act, Regulation, and Code.
- **CSA Standards**: CSA Z462 (Workplace Electrical Safety) and CSA Z94.3 (Eye and Face Protectors).

4. Procedure

1. **Preparation**
    - **Training**: Ensure you have received training on low voltage safety, the use of PPE, and the specific procedures for ohming and meggering.
    - **PPE**: Wear appropriate PPE including arc-rated clothing (cal suits), insulated gloves, face shield, safety glasses, and electrically insulated boots.
2. **Initial Assessment**
    - **Visual Inspection**: Conduct a visual inspection of the equipment for any signs of damage, labels indicating voltage, or other hazards.
    - **Risk Assessment**: Perform a risk assessment to identify potential hazards such as electric shock or arc flash.
3. **Establish Safe Work Area**
    - **Barricade Area**: Set up barriers and warning signs to keep unauthorized personnel away.

***The safety information in this program does not take precedence over any applicable legislation.*

- **Buddy System**: Ensure you have a partner present for safety.

4. **Verify Voltage**
   - **Non-Contact Voltage Tester**: Use a non-contact voltage tester to check for the presence of voltage without touching the equipment if determined safe use multi-meter or to confirm.
   - **Lockout/Tagout (LOTO)**: If possible, follow LOTO procedures to de-energize the equipment. Ensure all energy sources are isolated and locked out.
5. **Ohming Procedure**
   - **Select Appropriate Meter**: Use a digital multimeter (DMM) set to the ohms (Ω) scale.
   - **Test Leads**: Connect the test leads to the meter and ensure they are in good condition.
   - **Measure Resistance**: Place the test leads on the points to be measured. Record the resistance value. **DO NOT** measure resistance on Live Equipment.
   - **Interpret Results**: Compare the measured resistance with the manufacturer's specifications or industry standards to determine if the equipment is functioning correctly.
6. **Meggering Procedure**
   - **Select Appropriate Megger**: Choose a megger with selectable outputs (e.g., 250V, 500V, 1000V) suitable for the equipment being tested.
   - **Prepare to test**: Ensure circuit to be tested is isolated at both ends.
   - **Test Leads**: Connect the test leads to the megger and ensure they are in good condition.
   - **Measure Insulation Resistance**: Place the test leads on the points to be measured (e.g., phase to ground, phase to phase). Apply the test voltage and record the insulation resistance value.

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- **Interpret Results**: Compare the measured insulation resistance with the manufacturer's specifications or industry standards. (Typically, a value above 1 megohm (MΩ) is considered acceptable for most equipment[1]).

7. **Completion**
   - **Re-energize Equipment**: Once testing is completed, follow proper procedures to re-energize the equipment if it was de-energized.
   - **Left -hand Rule:** Utilize the Left-hand Rule by standing to the right of the equipment face away from it and use your left hand to operate the handle.
   - **Remove Barricades**: Take down barriers and warning signs once the area is safe.
8. **Documentation**
   - **Record Keeping**: Document the test results, risk assessment, and any incidents or observations during the task.

5. Emergency Procedures

- **Arc Flash Incident**: In case of an arc flash, immediately evacuate the area and follow emergency response protocols.
- **Electric Shock**: Administer first aid and seek medical attention immediately.

***The safety information in this program does not take precedence over any applicable legislation.*