

2018 SAFE WORK MANUAL



Pidherney's

DRIVEN TO EXCEL FROM START TO FINISH

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SECTION 1: Company Safety Policy

SECTION 1: COMPANY SAFETY POLICY

1.1 COMPANY HSE POLICY

The management at Pidherney's Inc. is committed to providing a healthy and safe working environment for all our employees, management, sub-contractors, our customers, the public as well as protecting the environment around us. Our goal is to have an incident free workplace. We never want to see HSE sacrificed for any reason, at any time. Nothing is so important that it cannot be done safely.

Pidherney's is committed to addressing the environmental impacts that are related to project activities through development of site specific environmental plans, inspections, and employee awareness.

All employees of Pidherney's must comply with safety requirements, performing their jobs aptly in accordance with Occupational Health & Safety Legislation, Pidherney's Job procedures and Safe Work Practices.

It is the responsibility of supervisors to oversee Safe Work Practices and ensure proper Job Procedures are always being performed at our worksite. They must enforce all policies and procedures at all times and report to management any failures to do so.

Management will also regularly review and evaluate the HSE program performance to identify strengths and opportunities for improvement, taking into account changing laws, regulations, technology and industry standards.

March 30, 2018

Date



**Clint Pidherney
Vice President**

SECTION 1: Company Safety Policy

1.2 SAFETY ROLES AND RESPONSIBILITIES

Responsibilities and Duties

Management

- Protect Pidherney's employees, contractors, clients, general public and the environment from potential incidents.
- Familiarize yourself with and take responsibility assisting with the development of, procedures and practices which are applicable to the workplace you manage/supervise.
- Ensure you are familiar with control of hazards from resources in your workplace and identify training needs to ensure optimum worker competency.
- Promote discussion, toolbox talks and consideration of work health and safety aspects of planned tasks and activities.
- Ensure that workers report injuries, incidents, near misses and hazards promptly and in accordance with the prescribed procedures of Pidherney's Safety Manual. Employees must be able to report unsafe or unhealthful workplace conditions or hazards without fear or reprisal.
- Apply allocated resources appropriately to strengthen and enhance work health and safety practices wherever applicable.
- Consult and cooperate with appointed safety personnel to enable them to fulfil the duties of their role.
- Engage with assessment of proposed tasks and activities which are planned in the workplace to ensure personal understanding and also to provide the benefit of your close personal knowledge of the site working conditions and constraints.
- Management is to perform quarterly work site visits, to communicate with workers and show management's commitment to Pidherney's health and safety program.
- While performing quarterly site visits Management will participate in tailgates and site inspection. Accompanied by foreman and one employee. Tracked through tailgate and inspection documentation.
- Actively participate in the Investigation of incidents, seeking to thoroughly identify the contributing factors, absent or failed defenses and improvements required in order to prevent recurrence.
- Co-operate fully in the rehabilitation of injured employees.
- Must be committed to safety excellence through visible personal involvement.
- Set a personal example at all times by using the correct personal protective clothing/equipment and following all safety requirements and procedures.
- Liaise with the person appointed in the role of HSE over the full range of their duties and responsibilities, with respect to inspections, audits, incident investigations, report recommendations, changes in legislation and advice obtained from other sources.
- Ensure workers are competent to do the work, or under direct supervision of a worker who is competent. Their competence will be measured by direction observation and assessment by an experienced supervisor.
- Review the Safety Manual on an annual basis.
- Participate in safety meetings.
- Provide employee safety training and company/job orientation.
- Investigate incidents and near misses, completing written reviews for each.
- Ensure that the company Safety Policy and all Government Acts and Regulations are followed and complied with by all employees and visitors to our workplace.

SECTION 1: Company Safety Policy

Supervisors

- Have Material Safety Data Sheets (MSDS) available to answer workers requests for WHMIS information.
- Be knowledgeable in all applicable acts, regulations and codes.
- Take appropriate disciplinary action when confronting a worker in non-compliance of safety regulations and policies.
- Be aware of existing hazards, potential hazards and generated hazards, providing safe work conditions for all workers under his/her supervision.
- Provide specific safety orientation for employees at work place or jobsite.
- All Field Supervisor/Foremen that are supervising Personnel on a project must adhere to the following timelines for safety documentation requirements;

For each job site the following paperwork must be completed:

- Emergency Response Plan
- Hazard Assessment
- Site Inspection

Weekly

- Ground Disturbance Checklist/Permit
- Safety Meeting & Hazard Assessment
- Site Inspection
- Worker Observation Cards (by all employees on site)

Daily

- Tailgate Meeting
- JSA's as required (can review from previous day if nothing has changed in the job scope or location).

As Required

- Incident Report, Damage Report, Near Miss
- First Aid Treatment Record
- Safety Enforcement/Disciplinary Written Warning
- Permits (Confined Space, Hot Work, etc.)
- Inspections (PPE, Equipment, etc.)

Employees and Subcontractors

- Comply with all company safety policies and applicable government acts and regulations.
- Read and understand Pidherney's Safety Manual.
- Report any unsafe acts or hazards to a Pidherney's supervisor.
- Ensure the health and safety for themselves and their fellow workers.
- Wear and comply with all applicable and appropriate personal protective clothing and equipment.
- Hard hats will be assigned on orientation day.
- Be familiar with their right and responsibility to refuse any unsafe work. Any worker must refuse to carry out any work if, on reasonable and probable grounds, they believe that there exists an imminent danger or immediate threat to their own or anyone else's health and safety or to the environment, persons or property.

SECTION 1: Company Safety Policy

1.3 COMPANY RULES

Violation of any Company Rule can lead to disciplinary or termination. Chargebacks may occur for any damage to Company property, equipment, or vehicles.

1. All workers must be fit for duty upon engaging in any work-related task. Any usage, possession or impairment due to illegal drugs or alcohol while engaged in any work for Pidherney's, including carrying of these substances in Company vehicles, will be considered grounds for dismissal.
2. All Personnel must comply with Pidherney's PPE requirements and meet CSA standards. All appropriate PPE must be worn as the work site, hazards and tasks dictate. All Subcontractors must comply with PPE requirements and supply their own.
3. Workers have three basic health and safety rights. The 'right to know' the hazards at work and how to control them. The 'right to participate in identifying, assessing, eliminating and controlling workplace hazards. The 'right to refuse' work you believe is unusually dangerous to themselves or other. All workers must take reasonable care to protect the health and safety of themselves and other workers and cooperate with their Supervisor for purposes of health and safety.
4. Horseplay and/or Practical jokes will not be tolerated.
5. All accidents, incidents, injuries, near misses and spills must be reported immediately to Supervisory personnel. All Supervisors must comply with Pidherney's incident reporting and investigative processes.
6. Harassment or violence will not be tolerated in the workplace and are cause for dismissal.
7. Theft, vandalism or any other misuse of company property will not be tolerated.
8. Company Vehicles are to be used for Company purposes only. Vehicles are to remain parked afterhours and on non-working days.
9. All personnel must abide by the law in Company vehicles.
10. Seat belts must be worn in Company vehicles and equipment. No exceptions.
11. Possession or transport of weapons is strictly prohibited.
12. All Pidherney's vehicles are equipped with a GPS monitoring system. Tampering with this system in any way will not be tolerated.
13. The use of cellular phones is limited to lunch and coffee breaks.
14. Only engage in tasks or operate equipment which you are competent.
15. All vehicles and equipment must maintain a safe working distance from power lines, wellheads, and pipelines. Owner approval must be granted prior to working within these limits of approach and as per owner requirements.
16. Prior to refueling any company vehicle, the engine must be shut off and driver must ensure there are no sources of ignition present.
17. All posted rules and speed limits in Pidherney's yards and parking lots must be followed at all times.

SECTION 1: Company Safety Policy

1.4 RIGHTS AND OBLIGATIONS

Three Basic Rights

All employees and sub-contractors of Pidherney's, have three specific health and safety rights guaranteed by law. These rights are:

The Right to Know

Workers have the right to know about the hazards of their jobs.

Pidherney's supervisors and worker teams have compiled all the known hazards of your job and how to control them, using Standard Job Procedures, Safe Work Practices and Personal Protective Equipment (PPE).

In addition, you are protected by the Workplace Hazardous Materials Information System (WHMIS). WHMIS legislation and WHMIS training by Pidherney's provides the worker with:

- Labels on containers of hazardous materials.
- Material Safety Data Sheets (MSDSs) with additional information.
- Education and training so that you will understand the hazards of the substances you work with.

The Right to Participate

Workers are the key to identifying and correcting health and safety issues within Pidherney's. You will be encouraged to participate in Tool Box Meetings and other safety related processes. You are expected to tell your supervisor of any concerns you may have about your health and safety.

The Right to Refuse Work

Workers have the right, and **in fact an obligation** to refuse to undertake hazardous work. When you refuse work which you believe is likely to endanger you, report the problem to your supervisor to determine a satisfactory resolution of the problem. There will be no harmful repercussions for this action, when undertaken with good intentions.

All workers will be trained on work refusal procedures at time of new hire orientation.

This obligation is more fully defined in the OH&S Act, Section 35, which reads:

35(1) No Worker shall:

- a) 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,
- b) 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
- c) 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.

35(2) In this section, "imminent danger" means in relation to any occupation

- a) a danger that is not normal for that occupation, or
- b) a danger under which a person engaged in that occupation would not normally carry out the person's work.

In accordance with this act, the worker must report immediately to his/her supervisor, providing his reason for not carrying out the work. Upon notification related work must stop and will not resume until the supervisor investigates and takes immediate action to eliminate the imminent danger. The investigation and actions taken to resolve the issue shall be documented using **Pidherney's Inc. Right to Refuse Form**, with a copy given to the worker.

If, following the investigation and the actions taken by the supervisor to eliminate the danger, the worker still believes that imminent danger exists, he may pursue the matter in accordance with the legislation.

SECTION 2: POLICIES

2.1 PROGRESSIVE DISCIPLINE POLICY

This safety enforcement policy provides guidelines for the reprimand of a worker who does not comply with company safety policies and/or applicable government acts and regulations. A Supervisor, member of Management or member of the Safety Division can initiate the disciplinary action on a job site. Disciplinary actions are to be used to prevent a safety violation from recurring.

Employees will be informed of and receive a copy of this Progressive Discipline Policy at new hire orientation.

The following disciplinary actions are listed from minor to severe, and in the order that they would be used. If a verbal warning is issued to the non-compliant worker and the safety violation is not corrected, the supervisor should follow through with a written warning.

1 Verbal Warning:

The worker will be informed of a minor safety violation (i.e. not wearing the required PPE) and that a written warning will be issued if the offence is not corrected or is repeated and will be documented in the employee's file.

2 Written Warning:

The worker will be informed of a potential serious safety violation or repeated offenses of a minor safety violation in the form of a written warning report and documented in the employee's file. Also, a written warning will be issued to the worker that a more severe action will be taken if the violation is ignored or repeated.

3 Discharge:

This action will be used only for very serious safety violations or where the worker refuses to follow and obey safety rules. This action is the final step and good judgment should be used when administering this action. An automatic discharge/suspension will be issued for any drug or alcohol offence. Drugs or alcohol will not be permitted in the workplace. Impairment by illegal drugs or alcohol will not be tolerated. Workers who fail to notify their supervisor of prescription drug use which may impair their judgment or physical skills will be considered for discharge. Any worker arriving to work impaired by drugs or alcohol will be immediately discharged / suspended.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.2 PERSONAL PROTECTIVE EQUIPMENT POLICY

Pidherney's Inc. mandates that employees utilize adequate personal protective equipment where necessary in the performance of their duties. Divisions shall determine and document what constitutes adequate personal protective equipment (PPE) through completion of a job hazard assessment or development of a safe work practices and safe job procedures. Divisions shall ensure that employees are adequately trained, and that assigned PPE is worn when required.

Employees shall use assigned PPE when called for by the hazard assessment, safe work practice, safe job procedures, or otherwise outlined by legislated standards. Employees will adhere to the higher standard directed by client requirements. PPE shall be maintained by the employee in a clean, sanitary and usable condition.

The necessary basic PPE includes but is not limited to: hard hats, CSA approved safety boots with ankle support, Nomex IIIA coveralls, traffic vests, safety glasses, and any other specialized PPE as required on worksites or by OH&S regulations.

Hazards that will determine PPE are as follows:

- Workers exposed to eye hazards must wear eye protection,
- Workers exposed to foot hazards must wear foot protection,
- Workers exposed to head hazards must wear protective head gear,
- Workers exposed to hand hazards must wear gloves.
- Workers exposed to skin hazards must wear protective clothing.
- Workers exposed to noise hazards must wear hearing protection.

All employees are trained on the selection, use, and care of PPE at time of new hire orientation. Employees involved in work that requires specialized PPE shall be trained prior to use. PPE shall be inspected daily prior to use and taken out of service when defects are noted.

All PPE used by this company shall conform to OH&S Regulations and relevant Safety Standards. Pidherney's will supply and maintain all specialized PPE, such as Scott Air Packs and H2S Detectors.

Visitors shall be provided appropriate PPE when visiting a hazardous area.

Any employee who is found to be in violation of our PPE policy will be subject to disciplinary actions up to and including dismissal.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.3 WORKPLACE VIOLENCE & HARASSMENT POLICY

Pidherney's Inc. is committed to providing a workplace that is free of intimidation, threats of violence, and acts of violence and harassment of any kind.

Pidherney's will ensure that all workers are instructed through New Hire Orientation, in how to recognize workplace violence, the policy, procedures and workplace practices that effectively minimize or eliminate workplace violence. Employees will learn the appropriate response to workplace violence, including how to obtain assistance, the procedure for reporting, investigating and documenting incidents of workplace violence.

Intimidation: an intentional act toward another person, causing the other person to reasonably fear for his/her safety or the safety of others.

Threat of Violence: an intentional act that threatens bodily harm to another person or damage to the property of another.

Act of Violence: an intentional act that causes bodily harm, however slight, to another person or damage to the property of another.

Pidherney's prohibits acts of intimidation as well as actual or threatened violence against co-workers or any other persons who are on site. The following types of behaviors are examples of violations of this policy:

- Unwelcome name-calling, obscene language, and other abusive behavior
- Intimidation through direct or veiled verbal threats
- Throwing objects in the workplace regardless of the size or type of object being thrown, or whether a person is the target of the thrown object
- Physically touching another person in an intimidating, malicious, or harassing manner, including such acts as hitting, slapping, poking, kicking, punching, grabbing, and pushing
- Physically intimidating others including such acts as obscene gestures, shouting, and fist shaking.
- Sexual harassment

Security and safety in the workplace requires the cooperation of every employee. Any employee who is the subject of, or a witness to, a suspected violation of this policy is strongly encouraged to report the violation to the next-in-line supervisor who is not a party to the violation. Any emergency, perceived emergency, or suspected criminal conduct shall be immediately reported to the Local Police Department.

Any supervisor, manager, or other person in authority who receives a report of a suspected violation of this policy shall investigate the suspected violation and shall consult with management immediately.

Any employee found to be in violation of this policy shall be subject to disciplinary action up to and including dismissal and, if appropriate, shall be prosecuted to the full extent of the law. No employee shall be retaliated against in his/her employment for reporting intimidation, threats or acts of violence.

Employee Responsibilities

All Pidherney's employees are required to adhere to this policy. It is the responsibility of every employee to assist and cooperate in making the workplace as safe and secure as possible.

- Any conduct or "jokes" which involve intimidation and/or threats are inappropriate and will be taken seriously.
- Employees are strongly encouraged to report any perceived violation of the Workplace Violence & Harassment Policy to their next-in-line supervisor who is not a party to the violation. No employee shall be subjected to criticism, reprisal, retaliation or disciplinary action for good faith reporting pursuant to this policy.
- Any employee reporting an injury or adverse symptom as a result of an incident of violence is advised to consult a physician of their choice for treatment or referral.
- Employees who are the subject of, or witnesses to, a possible violation of this policy may be requested by management to document their experience or observations in order to facilitate the handling of the situation.
- Employees are strongly encouraged to report Restraining Orders to the Local Police and to their supervisors when those Orders affect the workplace.

Supervisor Responsibilities

All Pidherney's supervisory employees are required to adhere to this policy.

Supervisors have a crucial role in making Pidherney's a safe and secure working environment by reducing the potential for employee workplace violence through training, appropriate and consistent use of sound supervisory practices and by applying timely corrective action when necessary. Adherence to Pidherney's policies, workplace rules and regulations, documentation of employee performance problems and appropriate training in identifying early warning signs, appropriate workplace conduct, and/or conflict resolution will greatly assist in the prevention of potential workplace violence harassment.

It is the responsibility of all supervisors to report the results of their investigations into alleged violations of this policy to their next-in-line supervisor and to consult with the management on potential employee workplace violence situations as appropriate.

Supervisors shall document all violations of the Workplace Violence & Harassment Policy in order that appropriate corrective action can be administered.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.4 PREVENTIVE MAINTENANCE POLICY

All tools, vehicles, and equipment shall be properly maintained so as to reduce the risk of injuries to employees or damage to property. All inspections will be carried out as per manufacturer specifications and legislation. Records of all the inspections and maintenance will be kept in the correct files.

Pidherney's has an established inventory on all company owned equipment. This inventory is to be kept current at all times. When any new equipment is purchased it will be added to ensure up to date records.

Supervision shall ensure that all preventative maintenance is carried out by qualified personnel according to applicable regulations, standards, and manufacturers specifications.

All employees shall check all tools, vehicles, and equipment before working with them. Employees shall take out of service any tools, vehicles, or equipment that pose a hazard due to need of repair or have a missing safeguard. No tool, vehicle, or equipment shall be returned to service until properly repaired by qualified personnel and repairs are properly documented. Vehicles, equipment, and tools that have been tagged out of service shall not be used until deemed safe to operate by a designated competent person. Out of service tags can be obtained through the shop if an individual identifies an unsafe vehicle or piece of equipment.

All motor vehicles and trailers owned and/or under the care and control of Pidherney Inc. shall be periodically inspected and/or repaired in accordance with the most current Commercial Vehicle Maintenance Standards Regulation (copy kept in the Shop Foreman's office). Inspections shall be systematically carried out as per the Pidherney's Maintenance Program.

A mandatory daily inspection is done as per NSC Standard 13. Each employee is required to turn in their Trip Inspection sheets to their direct supervisor. Any problems being reported will be brought to the attention of the Shop Foreman. All problems and repairs will be transferred to a work order and handed into the Shop Foreman upon completion.

Pidherney's dictates that no one shall operate or permit another person to operate a commercial vehicle if that vehicle or its equipment is in a condition that is likely to cause damage to person or property. Should any vehicle be deemed to be inoperable, the driver must immediately notify their direct supervisor.

March 30, 2018
Date



Clint Pidherney
Vice President

2.5 INSPECTION POLICY

It is Pidherney's policy to control losses of human and material resources by identifying and correcting unsafe acts and conditions through the use of Formal and Informal inspections and safety audits. A formal inspection is a documented assessment where as an informal inspection is an observation. Any follow up should be indicated with whom is responsible for the corrective action and a date to ensure follow up is done as indicated. These inspections will be conducted on the shop, offices and various field locations to ensure Safe environments, compliance with the HSE program and promote visible leadership.

Managers, supervisors and workers are required to perform informal daily inspections of work sites. They should constantly watch for unsafe acts and unsafe conditions. Informal inspections take place during normal working hours. If possible, any unsafe condition observed should be corrected immediately. If the problem cannot be corrected immediately, the condition should be recorded, and appropriate steps initiated.

Safety Audits will take place at a minimum once per year. These audits will allow Pidherney's to identify our strengths within our HSE Management program as well as identify any areas that we can improve on.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.6 WORK ALONE POLICY

Employees working alone or in remote areas and who may face the risk of a disabling injury and who do not have emergency assistance readily available, will check in with their Supervisor or the Dispatcher before commencing their work. Regular checks will then be scheduled by using phones, radios, GPS monitoring, or by site visits. When the employee is clear of the hazard area, the employee must notify the designated supervisor or dispatcher.

If effective electronic communication is not practicable, or readily available at the work site, Pidherney's Inc. will ensure that:

- the Supervisor or another competent worker visits the worker, or
- the worker contacts the Supervisor or competent worker.

The visits or contact will be at interval of time appropriate to the nature of the hazards associated with the work being done.

Standard Time Guidelines

It is the responsibility of the worker to check in and out with a designated supervisor or dispatcher. It is the responsibility of that designated person to ensure that the employee is complying with these guidelines. If the employee does not comply, the designated person is responsible for ensuring that the employee is safe.

Suggested time guide lines:

- Morning Check In – By 0800 Hrs.
- Mid-day Check In – By 1230 Hrs.
- End-day Check Out – By 1800 Hrs.

If work continues beyond the agreed End-day Check out time, the worker then must check in at this time and continue to check in at 2-hour intervals until work is complete and worker checks out.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.7 EMERGENCY RESPONSE POLICY

On each job site, the manager and / or supervisor will gather the information such as the location of the nearest hospital, fire response unit, and first aid station to help minimize travel time to nearest facility for treatment of employee's injuries.

This information is to prevent confusion during an emergency situation. All personnel will be aware of the various procedures to follow on each job site should an incident occur.

Pidherney's will review the Emergency Response process after an emergency to identify critical components of the overall response. Pidherney's maintains detailed records of all incidents. Information, knowledge and experience acquired from having to respond to an incident or emergency situations will be well documented during all aspects of an emergency response, and this information will be used to update response procedures, equipment and staff training requirements.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.8 HAZARD ASSESSMENT POLICY

If an existing or potential hazard to workers is identified during a hazard assessment, the Company must take measures in accordance with this section and AB OHS Code Part 2 Section 9 "Hazard Elimination and Control" to:

- a) eliminate the hazards, or
- b) if elimination is not reasonably practicable, control the hazard.

Pidherney's supervisory personnel are required to assess all worksites, jobs and tasks to identify existing or potential hazards to the worker's safety. This assessment must be completed prior to the commencement of work.

On-going hazard assessments must be completed, with the involvement of workers and supervisors as follows;

- at reasonable intervals
- when a new work process is introduced
- when a work process or operation changes
- before the construction of a new work site.

If the hazard cannot be eliminated Pidherney's will use Engineering, Administrative and/or PPE controls. Engineering controls are incorporated into the process itself, sometimes as part of the equipment. Substitution could be one engineered method to follow. 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 this, then the Company must ensure the appropriate PPE is used by workers affected by the hazard. The Company may use a combination of engineering, administrative and PPE controls to achieve a greater level of worker safety.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.9 SAFETY TRAINING POLICY

The purpose of this policy is to provide for general and specialized safety training throughout all levels of the organization.

An organizational chart is established and provided in section one of this manual. This chart will help with understanding the reporting flow as well as the different levels and departments within the company.

Pidherney's will provide all safety training that is necessary to minimize the potential loss of human and physical resources to the employee and employer. It is a condition of employment that employees attend these training sessions.

This training will include, but not limited to:

- Safety orientations for newly-hired and/or internally transferred personnel;
- Job-Specific training;
- Safety training for Supervisors and Management;
- Task and trade-specific training and certification;
- Specialized Safety and related training
- Refresher and update training
- Vehicle Operation Awareness Training

Safety training and current valid safety certificates are required by all employees at Pidherney's. The following are required safety training tickets that employees must have as a condition of employment: Company Orientation, First Aid, WHMIS, TDG, CSTS/RSTS, EGSO. Further requirements depending on position may include but are not limited to: H2S Alive, Global Ground Disturbance II, Confined Space, Flag Person.

Pidherney's HR Division will arrange for employees without required training to attend safety courses. As these safety courses are a condition of employment, employees may not be paid for the time during which they attend courses and may be charged back for the cost of the course. In-house training will not be charged back to the employee.

March 30, 2018

Date



**Clint Pidherney
Vice President**

2.10 ENVIRONMENTAL SUSTAINABILITY POLICY

Pidherney's Inc. is committed to providing a healthy and safe working environment for all our employees, management, sub-contractors, our customers, the public as well as protecting the environment around us.

Pidherney's expects all of their employees to do their best to prevent harm to the environment. Our goals on the job can be met without risking harm to the environment. We shall use, store and dispose of products in such a manner that will provide appropriate protection to the environment and workers. Workers will be kept informed on how to do their jobs in such a manner as to prevent environmental harm and waste of materials, and where possible, we shall recycle and promote the use of recycled products. We will operate in compliance with all relevant environmental legislation, and we will strive to use principles of sustainability and environmental best practices in all that we do.

Whenever possible Pidherney's will minimize unnecessary use of hazardous materials and products, use substitutions when feasible, and take all reasonable steps to protect human health and the environmental impact on local habitat when activities may affect them. One way Pidherney's minimizes our environmental impact by limiting the idling time of our trucks and equipment to reduce greenhouse gas emissions. Vehicles and equipment will be kept in good condition with up-to-date preventative maintenance. All work is completed in the most efficient manner possible in order to limit our impact on the environment.

Where possible, Pidherney's purchases and uses environmentally responsible products. These products have been selected based on criteria set to reduce environmental impact. This criterion includes manufacturing processes that reduce energy and/or water consumption, products with low toxicity or environmental hazard, durability, use of recycled materials, ability to be recycled and products that can be refilled or refurbished at end of life.

Energy conservation measures will be used whenever possible. This will include shutting down equipment when not in use, use of energy efficient light bulbs, use of new energy efficient technology, using equipment with the ENERGY STAR mark, etc. Water conservation measures will be used whenever possible. This will include repair on any equipment leaking water, use of a broom instead of a hose for cleaning purposes, upgrade equipment efficiency, educate employees, etc. Pidherney's promotes efficient use of energy, materials, and resources throughout our operations.

Whenever our job requires us to work near water, Pidherney's takes every possible measure to limit our impact on waterways, regardless of size. Along with implementing a Water Diversion Procedure, we also take care not to store chemicals or refuel vehicles near waterways. Pidherney's has an Environmental Program that includes Water Diversion, Waste Management, Spill Prevention and Response.

March 30, 2018

Date



**Clint Pidherney
Vice President**

SECTION 3: Substance Abuse Policy

SECTION 3: SUBSTANCE ABUSE POLICY

PIDHERNEY'S INC.
ALCOHOL & DRUG POLICY
EFFECTIVE DATE: April 3, 2017

3.1 NEED, INTENT AND SCOPE

PIDHERNEY'S is committed to the safety and productivity of all operations on behalf of their employees, customers and the communities in and through which they operate. The company recognizes that the use of illicit drugs, and the misuse of alcohol and medications can limit an employee's ability to properly do his/her job and can have a serious negative impact on the health and safety of themselves and others. The purpose of this Policy is to establish PIDHERNEY'S expectations for appropriate behavior, to establish consequences of non-compliance, to provide consistent guidelines for all Employees and to provide a means for supporting Employees who are dealing with current or emerging drug and alcohol problems. This policy is subject to ongoing review and evaluation, and modifications will be made as deemed necessary.

This policy applies to all employees while engaged in company business, working on company premises or worksites, travelling to and from worksites and operating company vehicles and equipment. Employees in positions designated as safety sensitive are subject to additional testing requirements. Safety sensitive positions include; Operator, Labourer, Truck Driver, Foreman, Dispatch, Mechanics, HSE Department, Transportation Department, Operations Managers, Project Managers and Superintendents.

As well, this policy applies in whole or in part to contractors while providing services to PIDHERNEY'S. Any contravention will be considered a breach of their contract.

Violation of the policy is grounds for disciplinary action. All employees are required to read, sign and comply with all parts of this policy as a condition of employment. All employees should be aware that this policy and the procedures it contains in no way constitute a contract or contractual agreement of any kind whatsoever.

Some employees will be subject to additional requirements which are site specific, as required for any circumstances or conditions outlined by our Customer's Policy Contractor Requirements.

3.2 PROHIBITED ALCOHOL AND DRUG-RELATED CONDUCT

The possession, consumption, or offer for sale of alcohol, illegal drugs, or the misuse of prescription drugs, or any product or device that may be used to tamper with any sample for a drug and alcohol test, is strictly prohibited on the company property, in company vehicles or in circumstances deemed to present risk to concerns of PIDHERNEY'S as to client and employee safety, lease operators, its financial integrity, security and safety of its property as well as its public reputation.

The use or possession of alcohol or illegal drugs on company premises, in company vehicles or while on duty, is grounds for immediate dismissal.

SECTION 3: Substance Abuse Policy

Any employee taking a prescription or non-prescription medication, whether or not prescribed by a licensed medical practitioner, which is known to cause impairment and possibly affect the ability to perform work in a safe and productive manner, must notify his or her direct supervisor or other designated person that will determine whether the employee can remain at work or whether work restrictions are required. Employees are advised to make their physicians or pharmacists aware of their safety-sensitive occupation and request information regarding effects and side effects of medications. Any medication or medical information reported will be treated as confidential. Employees taking medications which may cause impairment are prohibited from performing safety sensitive job functions. See Section 3.6 Prescription Drugs.

All employees of PIDHERNEY'S are expected to perform to the standards set forth in their respective job descriptions. Declines in work performance due to substance abuse will be addressed initially in the same manner as performance deterioration for other reasons.

Off duty use of any mood or mind-altering substances or medications, which could adversely affect an employee's job performance, or which could jeopardize the safety of other employees, our customers, the general public or our company property is proper cause for administrative or disciplinary action, up to and including termination of employment.

On or off duty employees who are arrested for drug or alcohol related offenses may be considered in violation of this policy. The employee must report the charge to their immediate supervisor. In deciding what action to take, management will take into consideration the nature of the charges, the employee's present duties, the employee's work record and other related factors as it is deemed appropriate. The employee may be referred to the company's EAP program for a substance abuse assessment and must consent to release outcome and recommendations to the company. The employee may be required to agree to a conditional work agreement. The employee may be subject to disciplinary action, up to and including termination.

Employees who are charged with an impaired driving related offense or have received an administrative temporary license suspension as a result of impaired driving must advise their direct supervisor prior to operating any equipment. Impaired driving includes, but is not restricted to, testing over the legal BAC in that jurisdiction. This may result in not being able to operate equipment until the suspension is complete. Employees convicted of impaired driving, whether in a personal or company vehicle, are subject to disciplinary action up to and including dismissal, and/or completion of a drug and alcohol assessment as a condition of continued employment.

PIDHERNEY'S INC. reserves the right to investigate any situation where there is reason to believe that a specific employee or group of employees may be in possession of illegal drugs or alcohol, in violation of this policy. Employees may be required to submit to searches of their clothing, lockers, company vehicles, desks, tool boxes, lunch boxes, brief cases or other containers brought to company property. The supervisor or company official who may make a determination for a search shall be trained in administering alcohol and drug programs in the workplace.

SECTION 3: Substance Abuse Policy

All employees:

1. Are required to abstain from the consumption of alcohol eight (8) hours prior to reporting for scheduled hours. Violations of the eight (8) hour abstinence period will result in disciplinary action up to and including termination of employment.
2. Are expected to be sober, well rested and fit for duty when reporting to work. If under the influence of alcohol / drugs, must advise their immediate supervisor or other designated person when contacted, or upon reporting to work. Failure to advise will result in disciplinary action.
3. If perceived to be under the influence of alcohol / drugs will be immediately removed from the work place and evaluated by his / her supervisor or designated person.
4. If an employee reports unfit for duty, the employee's unavailability will be noted and may result in disciplinary action.

When a request to report to work outside the usual schedule is made to employees scheduled to be on call and employees not scheduled to be on call:

- a) All employees and contractors must advise their immediate supervisor or other designated person when contacted, if they have consumed alcohol within eight (8) hours of reporting or are otherwise not fit to work.
- b) Must be administered a fitness for duty test in accordance with reasonable suspicion protocols (such as supervisors observations or a breath testing device) before beginning any work assignment if:
 - i. perceived to be under the influence of alcohol displays evidence of alcohol consumption, such as the smell of alcohol on the breath.
 - ii. has consumed alcohol during the eight (8) hours prior to reporting

There are limited exceptions for the authorized use and possession of alcoholic beverages as follows:

If approved by the Company, the moderate and responsible use of alcohol at Company Business or social functions is not prohibited by this policy. The Company manager authorizing this exception to the policy is required to take responsible action to ensure safe transportation for all participants. The occasional receipt of a gift consisting of a small quantity of alcoholic beverage, which must remain unopened while on Company Property, is also not prohibited by this policy.

3.3 EMPLOYEE DRUG AND ALCOHOL TESTING

Pre-Employment Testing

All applicants to safety sensitive positions are required to submit to a pre-employment drug test as part of their routine pre-placement procedures. Employment at PIDHERNEY'S is conditional on a negative drug test.

Pre-Access Testing

When a customer requires pre-access/site-access testing, employees are required to undergo a drug screening test and alcohol test as a condition of access to the customer's site.

SECTION 3: Substance Abuse Policy

Qualification Testing

Existing employees transferring from non-safety sensitive positions into safety sensitive positions are required to submit to drug and alcohol testing before commencing work in the safety sensitive position.

Re-Qualification Testing

PIDHERNEY's INC. will not be implementing re-qualification testing at this time.

Random Testing

PIDHERNEY's INC. will not be implementing random testing at this time.

Reasonable Suspicion Testing

Where a supervisor has either "cause to believe" or a "reason to suspect" an employee's performance is impaired, or an employee is unfit for duty, the supervisor, in agreement with the next level of management shall require the employee to submit to a drug and/or alcohol test. The supervisor or company official who may make a reasonable suspicion determination shall be trained in administering alcohol and drug programs in the workplace and will provide to the employee the reason for the request to test. The Supervisor will arrange to have the employee transported to the nearest collection site for testing. Any employee undergoing a reasonable suspicion test shall be placed on administrative leave without pay pending the outcome of test results.

Post- Incident Testing

- All employees shall be subject to post-incident testing if:
- Employee is involved in an incident resulting in a fatality, or
- Any incident which involves a moving traffic violation, the vehicle is disabled (must be towed) or there is a physical injury involved.
- Any lost time injury
- Any serious or potentially serious incident
- Any motor vehicle incident involving > \$10,000 damage to any vehicle, equipment or property, or where "reasonable grounds" exists
- Any circumstance or conditions dictated by customer policy
- Other incidents and near misses may be subject to post-incident testing at the discretion of a company representative.
- A spill or abnormal discharge of gas, liquid or solid causing long term health effects, public evacuation or serious environmental discharge.

As soon as possible following an incident as defined in this policy, the employee shall make every attempt to contact his/her supervisor or company official. The employee must remain available for testing, or the company may consider the employee to have refused to submit to testing. The supervisor will provide to the employee the reason for the request to test. Employees involved in an incident must refrain from consuming alcohol for eight hours following the incident or until tested. Every attempt will be made to have the alcohol test completed within 8 hours and the drug test completed within 32 hours.

SECTION 3: Substance Abuse Policy

3.4 RETURN TO DUTY FOLLOW-UP TESTING

Employees who are returning to duty after engaging in prohibited conduct regarding alcohol misuse or drug use, shall undergo a return to duty alcohol and/or drug test with a result indicating a negative test.

Follow-up unannounced alcohol and/or drug testing will be required six times in a twelve-month period or as recommended by the Substance Abuse Professional as a condition of employment.

Return to Duty and Follow-Up testing must be directly observed and must be conducted at a facility designated by PIDHERNEY'S.

3.5 PRESCRIPTION DRUGS

All employees who are required to take prescription drugs which could impair their work performance must report this to their supervisor. Employees are responsible for using the prescription or non-prescription drug for its intended purpose and in the manner directed by the employee's physician or pharmacist or the manufacturer of the drug. In circumstances of concern regarding reported medication use and/or following a negative drug test report with a safety advisory issued by the Medical Review Officer, a fitness for work assessment should be conducted to ensure the safety of the employee and others in the workplace. PIDHERNEY'S will complete a risk assessment by requesting a physician report which will include the employee's current job description and Physical Demands Analysis with the physician's determination stating the employee may/may not perform these safety sensitive duties while taking the medication as prescribed. The report will identify what work, if any, can be performed safely while using the medication. Accommodation in a non-safety sensitive position may be offered if available. The report will also include the name of the drug, possible side effects, and the name of the doctor who prescribed the drug.

Failure to disclose to the employer, the use medications with any potentially unsafe side effects, will result in disciplinary action up to and including termination. Misuses of any legally prescribed or non-prescribed drugs may subject an employee to the same disciplinary procedures as for those who abuse illegal drugs.

3.6 TESTING CUT-OFF LEVELS AND NON-NEGATIVE RESULTS MANAGEMENT

Drug Tests

Employees will be tested for the following controlled substances; marijuana, cocaine, opiates, amphetamines, methamphetamines MDMA (Ecstasy) and phencyclidine (PCP). Cut off levels, above which a test result is considered positive, have been established by the US Department of Human Health Services (DHHS) and the Canadian Model developed by the Construction Owners Association of Alberta (COAA). See table below. Drug testing includes an initial screening test and a confirmation test when required, consistent with US DOT testing standards and COAA Model standards. Employees with a confirmed positive drug test must be removed from duty and referred to a Substance Abuse Professional for evaluation.

SECTION 3: Substance Abuse Policy

Drugs or classes of drugs	Screening Concentration <i>equal to or in excess of ng/mL</i>	Confirmation Concentration <i>equal to or in excess of ng/mL</i>
Marijuana metabolites	50	15
Cocaine metabolites	150	100
Opiates - Codeine - Morphine	2000	2000 2000
6-Acetylmorphine	10	10
Phencyclidine	25	25
Amphetamines/Methamphetamines - Amphetamine - Methamphetamines	500	250 250
MDMA - MDMA - MDA - MDEA	500	250 250 250

Alcohol Tests

If the results of the employee's alcohol test indicate an alcohol concentration of greater than 0.00 the employee, if a driver, shall not be permitted to drive until the start of the driver's next regularly scheduled duty period but not less than 24 hours following the alcohol test. Results of alcohol concentration of greater than 0.00 are considered a positive test and employee must be removed from duty and referred to a Substance Abuse Professional for evaluation. Alcohol testing includes an initial screening test and a confirmation test when required, consistent with US DOT testing standards and COAA Model standards.

3.7 CONSEQUENCES OF A NON-NEGATIVE TEST

Any employee whose drug/alcohol test is confirmed positive will be subject to the following actions:

The employee will be informed of the results by his / her direct supervisor (or other designated person) and may be suspended immediately pending the laboratory confirmation result from the Medical Review Officer. If the lab confirmation result is negative, the employee will be returned to work with pay. If the lab confirmation result is positive, the suspension will continue without pay, until the following conditions have been met. All positive confirmation alcohol tests will result in an immediate suspension as indicated above.

Before returning to safety sensitive duties, any employee must undergo the following:

Complete an evaluation by a qualified Substance Abuse Professional (SAP)

Agree to complete any recommendations (including treatment) made by the SAP,

Pass a return-to-duty alcohol and/or drug test.

Agree to return-to-work conditions that include six unannounced follow-up alcohol and/or drug testing over a period of twelve months.

All Return to Duty conditions will be the employees' expense.

This is a condition of continued employment at PIDHERNEY'S. Should any test, during the twelve-month period be confirmed positive for alcohol/drugs and/or the employee does not comply with SAP recommendations, the employee will be subject to termination. Return to work

SECTION 3: Substance Abuse Policy

provisions will include the signing of a return to duty agreement specifying exact employment conditions.

Where the employee's job-related problems are known to be the result of a drug or alcohol problem and if remedial action has been considered and rejected or when the employee has either rejected assistance or demonstrates a lack of serious commitment to overcoming the problem, termination of employment may apply.

3.8 COLLECTION PROCEDURES

Any drug / alcohol testing conducted under this policy shall be performed at a collection site designated by PIDHERNEY'S for the purposes of administering this policy. The company will not accept test results from any facility other than the one designated by the company. Once a request is made, the employee must proceed immediately to the determined collection facility. Transportation and supervisor escort will be provided when required, for example, reasonable cause or post incident testing

Collection procedures at all testing facilities shall conform to the most recent industry standards as noted in the COAA Canadian Model and referenced as the DOT Urine Specimen Collection Guidelines for the U.S. Department of Transportation Workplace 49 CFR Part 40.

http://www.dot.gov/sites/dot.gov/files/docs/Urine_Specimen_Collection_Guidelines_July3_2014_A.pdf

Testing procedures, including urine collection, oral fluid and breath alcohol testing, urine laboratory analysis and medical review procedures, shall be conducted in accordance with applicable Canadian industry standards outlined in the COAA Canadian Model and referenced to the US DOT regulations, including 49 CFR Part 40.

A laboratory based oral fluid drug test may be requested for reasonable suspicion, as indicated in the COAA Canadian Model.

3.9 REFUSAL TO TEST

An employee's refusal either to:

- a) Comply with a request made by PIDHERNEY'S to submit to alcohol and/or drug testing
- b) Provide a suitable sample for an alcohol and/or drug test, shall subject the employee to disciplinary action up to and including termination of employment.

The Company will refer such an employee to a Substance Abuse Professional.

ALCOHOL

Refusal of an employee to complete and initially sign the breath alcohol testing form, to provide an adequate amount of oral fluid or breath, or otherwise cooperate with the testing process in a way that prevents the completion of the test, shall be noted by the Screening Test Technician or Breath Alcohol Technician on the certification form. If a licensed physician reports no medical reason for the inability to produce a sample, the failure to provide an adequate sample shall be regarded as a refusal to test.

SECTION 3: Substance Abuse Policy

DRUGS

Refusal of an employee to complete and initially sign the consent form, to provide an adequate amount of urine or oral fluid, or otherwise cooperate with the testing process in a way that prevents the completion of the test, shall be noted by the collection site personnel on the consent form. If a licensed physician reports no medical reason for the inability to produce a sample, the failure to provide an adequate sample shall be regarded as a refusal to test.

Attempts to tamper with a sample are considered a refusal to test. Any person refusing to submit to alcohol and/or drug testing shall be considered in violation of this policy and subject to immediate termination. Any conduct that clearly indicates an attempt to substitute or adulterate a specimen will result in a second collection under direct observation, in accordance with Urine Specimen Collection Guidelines (as noted in Section 4.3.1).

3.10 FAILURE TO PROVIDE A SAMPLE

Individuals who cannot provide a urine sample initially may consume up to 40 ounces of appropriate fluids over a three-hour period. After that time has elapsed, efforts to collect the sample shall cease and a “shy bladder” situation shall be declared. Individuals unable to provide either an adequate urine sample or breath sample shall be referred to a physician for evaluation. If the evaluation fails to identify an acceptable medical explanation for the inability to provide a specimen, the failure to provide a sample shall be considered as a “refusal to test”.

3.11 CONFIDENTIALITY OF TEST RESULTS

PIDHERNEY’S will exercise reasonable care and precaution to protect the confidentiality of employee alcohol and drug screening results and conduct any investigation, search or test in a manner which respects the dignity and privacy of the individual.

PIDHERNEY’S will have controls and protocols in place that ensure protection of privacy and personal information. All alcohol and drug test results will remain strictly confidential and may be reported only to the designated company official. All test results shall be maintained off-site in a confidential and secure location with controlled access.

3.12 COST OF THE PROGRAM

Testing

PIDHERNEY’S shall pay for all costs associated with this alcohol and drug testing program except: return to duty testing, follow-up testing, and retest of any sample.

Employee Assistance

PIDHERNEY’S will cover the cost of an assessment and counselling for voluntary self-referrals. Following a positive drug or alcohol test result, employees will be responsible for the cost of a substance abuse assessment and any recommended counselling and/or treatment required.

SECTION 3: Substance Abuse Policy

3.13 EMPLOYEE ASSISTANCE PROGRAM AND SELF HELP

PIDHERNEY'S maintains an employee assistance referral program which provides help and information to employees who suffer from substance abuse and other personal or emotional problems. However, it is the responsibility of each employee to seek assistance before performance problems lead to disciplinary action. Once a violation of the "Alcohol and Drug Policy" occurs, subsequent employee use of the referral program on a voluntary basis will not lessen disciplinary action.

PIDHERNEY'S recognizes that alcohol and drug dependency are treatable illnesses and that early intervention greatly improves the probability of a lasting recovery. This policy encourages employees who feel they may have a substance abuse problem and would like to take advantage of this program to contact the Designated Employer Representative or the company designated Substance Abuse Professional. All communication is confidential. Voluntary disclosure of an alcohol or drug problem will not in and of itself result in discipline. Reasonable accommodations will be made as required.

Employees will be supported through a treatment and aftercare program consistent with the Substance Abuse Professional's recommendations. Reasonable accommodations will be made as required.

An employee who believes that he or she may be unable to comply with this Alcohol and Drug Policy must seek help by reporting noncompliance to their supervisor or Designated Employer Representative DER, to ensure that he or she presents no safety risk to himself or herself or to others at the workplace.

3.14 EDUCATION & TRAINING OF EMPLOYEES AND SUPERVISORS

Supervisor Training

All persons designated to supervise employees in safety sensitive positions will receive training on alcohol misuse and controlled substance use. The training will be used by the supervisors to determine whether reasonable suspicion exists to require an employee to undergo reasonable suspicion testing. The training shall include the physical, behavioral, speech, and performance indicators of probable alcohol misuse and use of drugs which may cause impairment. Supervisor Training Programs shall be conducted in accordance with applicable Canadian industry standards outlined in the COAA Canadian Model and referenced to the US DOT regulations – Employer Guidelines.

Employee Education Program

PIDHERNEY'S is committed to informing employees of the existence of this alcohol and drug policy and taking reasonable steps to inform its employees of the safety risks associated with the use of alcohol and drugs and the assistance available under the employee assistance program. This policy stresses the importance of prevention and early identification of potential situations. As part of PIDHERNEY's overall concern for the health and well-being of all employees, the company will provide employees with written educational information on the effects of alcohol and controlled substances on an individual's health, work, and personal life. All employees are required to read the written educational information, as part of this program.

SECTION 3: Substance Abuse Policy

3.15 EMPLOYEE RESPONSIBILITIES

All employees are required to read, sign and comply with all parts of this policy. Understanding, accepting and complying with the "Alcohol and Drug Policy" is a condition of employment with PIDHERNEY'S.

All employees are required to arrive and remain fit for work during their assigned duties free from all effects of drugs & alcohol.

Employees shall consult with their doctor and/or pharmacist regarding the proper use of prescribed medications and any negative impact they may have on their performance or safety. Employees shall use medication responsibly and report any potentially harmful prescription they may be taking to their supervisor.

All employees shall seek support if they feel that they have or may be acquiring a drug or alcohol dependency, participate in the company's employee assistance program and follow all recommendations of the program.

All employees shall encourage their peers or co-workers to seek help when there is a potential breach or breach of policy.

All employees shall cooperate with any work modification related to safety concerns as a result of a current or emerging problem.

Because all individuals working for PIDHERNEY'S have a shared responsibility for workplace safety, employees are encouraged to look out for other employees, contractors or visitors in terms of fitness for duty and safety. They are expected to take appropriate action to ensure no individual remains in an unfit condition on PIDHERNEY'S Premises or PIDHERNEY'S Worksites such that they may endanger themselves or others, by ensuring their supervisor or another member of management is advised of the situation.

3.16 SUPERVISOR RESPONSIBILITIES

Supervisors shall communicate and give leadership in the administration of this policy.

Supervisors shall be trained in administering alcohol and drug programs in the workplace and in recognizing signs and symptoms of impairment. Supervisors shall also be trained in intervention techniques with employees who are suspected of being at work under the influence of alcohol and/or drugs.

Supervisors shall be responsible for ensuring employees submit to substance abuse testing as required, in a timely manner as outlined in this policy.

Supervisors shall be responsible for addressing prescription medications their employees are taking and working with the company's safety department to make sure the prescription won't affect their work.

Supervisors will understand the company's performance management policy and how this Alcohol and Drug Policy is integral to that policy. Supervisors will take action on performance deviations. Supervisors shall take action on reported or suspected alcohol or drug use by employees.

SECTION 3: Substance Abuse Policy

Supervisors will be responsible for guiding employees who seek assistance to appropriate resources (for example, the employee assistance program or other community services).

Supervisors shall be knowledgeable about return to work situations and the management of relapse situations.

3.17 EMPLOYER RESPONSIBILITIES

Employer shall provide a safe workplace.

Employer shall provide prevention programs that emphasize awareness, education and training as the principal methods of ensuring commitment to and compliance with this Alcohol and Drug Policy.

Employer shall ensure managers and supervisors are aware of client requirements with respect to substance abuse and impairment in the workplace.

Employer shall ensure proper investigation and inquiry procedures are followed when interviewing employees and investigating s pursuant to the policy requirements.

Employer will ensure all employees know how to access employee assistance services.

Employer shall ensure all test results and required documents are managed in a confidential manner, with restricted access.

This Alcohol and Drug Policy does not alter or pre-empt any of PIDHERNEY'S current policies.

March 30, 2018

Date



**Clint Pidherney
Vice President**

SECTION 4: HAZARD ASSESSMENT

Pidherney's has a program in place to help identify, rank and control hazards within our operations.

Hazard assessment is the basis for prevention of injury or damage in the workplace. Through hazard assessment, we examine both potential hazards that may be encountered in the work place as well as those immediately visible.

Documented hazard assessments are completed prior to work, and at reasonably practicable intervals thereafter. These must also be completed upon any change in scope of work or workers, site conditions or supervision.

4.1 DEFINITIONS

Hazard: Any circumstance or condition which poses the risk of an incident or injury.

Hazard Assessment: A formal process used to identify hazards that have the potential to result in incident, injury, equipment damage, loss of materials or property or harm to the environment.

Risk: The probability that during a period of activity a hazard will result in an incident with definable consequences.

Risk Management: A reduction in the probability of risk or risks to an acceptable level to ensure hazards do not result in an incident with definable consequences.

Recognition and control of hazards is necessary to ensure that appropriate action is taken within a timely manner.

It is through the control of hazards that the following may be accomplished:

- Reduced frequency and severity of incidents
- Reduced human suffering
- Reduced financial costs

4.2 RESPONSIBILITIES

Administration / Management of Change (MOC)

It is the responsibility of the HSE Manager to provide direction in the develop of MOC and is to maintain the Hazard assessment and MOC Program. All management will receive Leadership in Safety Excellence to ensure adequate knowledge in MOC. When a MOC occurs the HSE Manager will notify management and safety advisors of the changes and ensure that the changes are implemented into the work force. These procedures are kept in the HSE Manager's office.

Management of Change (MOC) is the process used to review all proposed changes to materials, technology, equipment, procedures, personnel and company operations before these permanent or temporary changes are implemented to ensure health, safety, environmental and/or quality standards will be maintained while staying on budget.

Pidherney's Vice President, HSE Manager, Project Manager and any other affected personnel must be included in these reviews to ensure all areas are being addressed accordingly. Once agreed upon the HSE Director will facilitate the management of change process.

Once the review determines that a proposed change is approved without negative impact to the health, safety, environment, quality or economic standards:

- The applicable safety information will be updated accordingly
- All employees will be informed and retrained if necessary prior to resuming work.
- Orientation will also be updated to reflect changes.

Once a change has been implemented, there will be a follow-up to make sure that all precautions and preparations were handled properly without negative impact.

Workers

If reasonably practicable, the Company must involve affected workers in hazard assessment and control or elimination of hazards identified. Pidherney's will ensure that workers affected by hazards identified in a hazard assessment report, are informed of hazards and the methods used to control or eliminate these hazards. Workers names and their participation in the process will be documented on the written hazard assessment reports or on tool box meeting documentation.

Supervisors

Pidherney's supervisory personnel will assess a work site to identify existing and potential hazards prior to work beginning at a work site. Supervisors will prepare a report of the results of the hazard assessment and the methods used to control or eliminate the hazards identified. Supervisors must ensure that the date on which the hazard assessment is prepared or revised is recorded on it.

They must also ensure that the hazard assessment is repeated:

- At reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions, when a new task is introduced, when a work process or operation changes, or prior to construction of a new worksite or significant additions or alterations to an existing work site.

4.3 CONDUCTING A HAZARD ASSESSMENT

- Assemble all personnel involved.
- Discuss possible hazards with employees.
- Tour the entire operation.
- Look for possible hazards originating from environment, material, equipment and people.
- Keep asking "**What If?**"
- Mark on the checklist all items that need attention.
- Review the findings with workers and solicit their input for control measures.

The first ranking estimates **the severity or consequence of the problem** if the potential incident were to occur:

- 1 Insignificant** (i.e. No injuries, minimal / no financial loss)
- 2 Minor** (i.e. Non-serious injury, illness, or damage Medium financial loss)
- 3 Moderate** (i.e. Severe injury, serious illness, and property and/or equipment damage)
- 4 Major** (i.e. Causing deaths, widespread occupational illness, extensive property damage, large financial loss).
- 5 Catastrophic** (ie. Death, dismemberment, hospitalization, extensive property damage, massive financial Loss)

The second ranking estimates **the probability of the incident occurring**:

- 5 Almost Certain** – Often occurs once a week
- 4 Likely** – Could easily happen once a month
- 3 Possible** – Could happen or known to happen once per year.
- 2 Unlikely** – Hasn't happened yet but could once every 10 years
- 1 Rare** – Conceivable but only in extreme circumstances once in 20 years

Each hazard is assigned both rankings, and the result determines priority in terms of corrective action. A hazard ranked high (in red, 6 and up to 9) is more important and serious than one ranked low (in green, 1 to 2).

		Severity				
		Insignificant (1) No injuries /minimal financial loss	Minor (2) First aid /medium financial loss	Moderate (3) Medical treatment / high financial loss	Major (4) Hospitable/large financial loss	Catastrophic (5) Death/massive financial loss
Probability	Almost Certain (5) Often occurs/once a week	Moderate (5)	High (10)	High (15)	Catastrophic (20)	Catastrophic (25)
	Likely (4) Could easily happen /once a month	Moderate (4)	Moderate (8)	High (12)	Catastrophic (16)	Catastrophic (20)
	Possible (3) Could happen or known it to happen / once a year	Low (3)	Moderate (6)	Moderate (9)	High (12)	High (15)
	Unlikely (2) Hasn't happened yet but could / once every 10 years	Low (2)	Moderate (4)	Moderate (6)	Moderate (8)	High (10)
	Rare (1) Conceivable in extreme circumstances / once in 200 years	Low (1)	Low (2)	Low (3)	Moderate (4)	Moderate (5)

4.4 PRE-JOB HAZARD ASSESSMENT

Pre-job hazard assessments are essential to ensure that hazards and risk are identified, and the appropriate controls are implemented prior to mobilization of equipment and personnel to the site.

Pre-job hazard assessment begins at the estimating stage of the project or job. All hazards identified will be prioritized using the Risk matrix tool. The information collected during this pre-job hazard assessment can also be used to develop a site-specific safety plan.

4.5 IDENTIFYING HAZARDS

Before the start of any work or when there is a significant change in the work conditions, a hazard assessment must take place of the task being performed. This assessment will be done by the workers on site as well as the supervisors involved.

Job Safety Analysis (JSA) is a method that can be used to identify, analyze and record:

- a) the steps involved in performing a specific job;
- b) the existing or potential safety and health hazards associated with each step; and
- c) the recommended action(s)/procedure(s) that will eliminate or reduce these hazards and the risk of a workplace injury or illness.

Field Level Hazard Assessment (FLHA) is a method that an individual or crew would use to minimize or eliminate potential losses (to people, property, materials or the environment) while in the field.

The FLHA Process is:

- 1. STOP and Think
- 2. Look around – Identify hazards
- 3. Access hazards
- 4. Control hazards
- 5. Resume work

4.6 HAZARD CONTROL STRATEGIES

Whenever possible, hazards should be eliminated or controlled at their source, as close as possible to where the problem is created– using engineering solutions. If this is not possible, controls should be placed between the source and the workers. The closer a control is to the source of the hazard the better. If this is not possible, hazards must be controlled at the level of the worker.

Administrative controls and personal protective equipment (PPE) control hazards at the level of the worker. These control methods reduce the likelihood and severity of worker injury but do not eliminate the hazard. A combination of several hazard control approaches may be necessary in some situations.

Engineering Controls

Engineering controls deal with the elimination or isolation of the hazard from the worker, and physically limits the workers exposure to the hazard. This would be the preferred method of hazard control.

Administration Controls

An administrative control involves activities such as worker education, training, safe work practices and procedures. Administrative controls limit or reduce the exposure time the worker has to the hazards.

Personal Protective Equipment (PPE)

PPE is the final line of defence against the risks identified from the hazard assessment. Other than the basic PPE, additional PPE is only implemented after all reasonably practicable means of risk mitigation have been attempted.

4.7 OCCUPATIONAL HYGIENE, HEALTH AND ERGONOMICS

To prevent exposure to occupational health hazards that can lead to occupational disease and/or injury is the primary objective of occupational hygiene.

This is done by a systematic process of anticipating, recognizing, measuring, evaluating and controlling the health hazard. Occupational Hygiene, Health and Ergonomic issues must be brought forward to the Pidherney's Safety department for action.

4.8 HAZARD IDENTIFICATION AND RISK ASSESSMENT

Processes are in place to identify potential hazards by the use of JSA's, FLHA's, facility wide or area specific analysis/inspections.

Involve employees by:

- a)** discussing what you are going to do and why;
- b)** explaining that you are studying the task, not employee performance; and
- c)** involving the employees in the entire process.

Pidherney's will review our company's accident/injury/illness/near miss history to determine which jobs pose the highest risk to employees. We identify the safety standards that apply to our jobs and incorporate their requirements into our JSA.

Setting Priorities

The hazard identification process is used for routine and non-routine activities as well as new processes, changes in operation, products or services as applicable. Hazards are classified/prioritized and addressed based on the risk associated with the task / (Risk analysis matrix outlining severity and probability).

Pidherney's gives priority to:

- a)** Jobs with the highest injury or illness rates
- b)** Jobs with "close calls", where an incident occurred but no one got hurt
- c)** Jobs identified as being in violation of safety standards
- d)** Jobs with the potential to cause serious injuries or illness

- e) Jobs in which one simple human error could result in severe injury
- f) Jobs new or unfamiliar to our operation; and
- g) Jobs that due to their complexity require written instruction.

Emergency Control of Hazard

If emergency action is required to control or eliminate a hazard that is dangerous to the safety or health of workers:

- a) only those workers competent in correcting the condition, and the minimum number necessary to correct the condition, may be exposed to the hazard, and
- b) every reasonable effort must be made to control the hazard while the condition is being corrected.

If ordered to do so by a Director, Pidherney's will prepare and implement a health and safety plan that includes the policies, procedures and plans to prevent work site incidents, work related injury and occupational diseases.

Basic Procedure

Once the job has been selected, the supervisor and/or safety representative will discuss the JSA procedure and its purpose with the employees who perform the job. Using the JSA form, the supervisor and employees must list each job step in order of occurrence. Job steps should provide adequate information without being too specific. The wording for each job step should begin with an action word such as "remove," "open" or "pour."

Once the job steps have been recorded, identify and list the potential hazards or accidents which might occur for each step. To do this, ask yourself and your employees questions such as:
Is there a danger of striking against, being struck by, or otherwise making injurious contact with an object?

- Can the employee be caught in, by, or between objects?
- Can the employee be strained by pushing, pulling, lifting, bending or twisting?
- Does the work environment contain a potential safety and/or health hazard such as a toxic gas, vapor, mist, fumes, dust, noise, heat or electrical hazard?
- Is there a potential for a slip or trip?
- Can the employee fall from one level to another?

The next step in the JSA process is to develop a safe job procedure or control action to address the hazard(s) in each job step. The safe job procedure should clearly identify exactly what the employee needs to do and/or what the employee needs to know in order to perform the task safely. Avoid general statements such as "be careful" or "use caution." Identify ways to eliminate or reduce the hazards using the Engineering or administrative controls, and if required, personal protective equipment.

The JSA form includes a section to list all the required personal protective equipment the employee must wear when performing the job. The safe job procedure for each job step must specify when the employee needs to wear the protection based on the hazards of that job step.

The JSA form includes a section to list all the required tools and equipment needed to perform the job. Remember, injuries frequently occur because the employee selected the improper tool or equipment to perform a job. When the JSA has been completed, the supervisor should sign and date it and send a copy to the safety department for review and for filing in the corresponding job number file.

Identified hazards are addressed and mitigated by dedicated assignment, appropriate documentation of completion, and implemented controls.

JSA Utilization / Training

Each supervisor will establish a department JSA file and shall make it accessible to employees for review when needed. JSA's will stay on site for the duration of the task. Whenever possible, a copy of the JSA should be laminated and secured to the machine/equipment or at the permanent location where the job is being performed. When a job involves the use of highly toxic or extremely dangerous hazardous substances, it's a good idea to attach the MSDS pages for these substances to the JSA.

JSA Process Review

A review process is in place to avoid creating new hazards derived from the corrective measures. The JSA will be reviewed by the Supervisor to ensure that the corrective measures have not unintentionally recreated new hazards. Prior to filing the JSA's in the safety department office, they will be reviewed by the safety personnel.

4.9 MEETINGS

Pre-job meeting

For jobs that have specific or high-risk tasks or where owner/client dictates, Pidherney's will conduct a pre-job safety start up meeting and review the procedure and processes with job foremen, Superintendents and employees.

Tailgate/Toolbox meeting

At the beginning of each work day thereafter, all foremen will hold a tailgate / toolbox meeting for all work being done with their crew. These are informal meetings which allow on-site personnel to review Safe Work Practices/Safe Operating Procedures for a specific hazard. All workers on site are required to attend. Any relevant Safety topics may be discussed at this time.

Weekly safety meeting

Pidherney's Safety Meeting & Hazard Assessment form is to be used to conduct weekly safety meetings that involve ALL Pidherney's employees on the job site. These meetings will provide workers with a broad understanding of the hazards of the job site. These meetings will also focus on recent incidents and recommendations for prevention.

4.10 SAFETY ALERTS

Safety Alerts will be distributed by the Safety Department to inform management and employees about relevant health and safety issues.

It is Pidherney's Safety Department responsibility to send these alerts out at regular intervals showing a proactive approach to safety.

Safety Alerts will be sent out via email to all staff, be reviewed at regular safety meetings and are posted for all employees to review.

Safety Alerts with regards to general health and safety may be distributed with pay stubs.

Safety alerts shall be sent out to communicate what has been learned from any significant incident. Safety alerts shall also be sent out when the safety department comes across any trending so that we can take a proactive approach to mitigate incidents.

4.11 CONTROLLED PRODUCTS

All controlled product fall under Workplace Hazardous Materials Information System (WHMIS) and require having a current MSDS available to the workers on the work site.

Employees who purchase, receive or work with controlled products on the work site are responsible to ensure that a MSDS is available for that product on site. An MSDS registry shall be kept by the safety department for use by the employees. All controlled products to be stored as outlined in their MSDS.

4.12 CHEMICALS, BIOLOGICAL AND HARMFUL HAZARDS OR SUBSTANCES

Ensure to follow all the above-mentioned standards as well as check with the Supervisor/Foremen or Designated Safety Personnel should you encounter anything you are not sure of. OH&S has a set of schedules and tables to deal with these situations all workers need to be aware of them. Atmospheric testing will be done and documented prior to any work and periods during the work. Follow the MSDS or Industry standard. At no time will workers be exposed to any substance concentrate over the ceiling limits. Worker will be competent in the use of monitoring equipment used and trained in the appropriate practices. Should chemicals be present in the work area, ensure you have the appropriate first aid equipment as well as eye wash and emergency showers (if required) on location. Before beginning work, review the safe work practice and manufacturer directions for emergency equipment.

4.13 CRITICAL TASK ANALYSIS

A task is considered a critical task if the consequences of performing the task incorrectly and without necessary controls has a significant potential for loss to people, product, process or profit. A Critical Task Analysis is the process of conducting an inventory of a task and breaking down the Severity, Frequency, and Probability of hazards to occur. Pidherney's will ensure those tasks have specific job procedures and a code of Practice in place for each of these critical hazard tasks as legislation dictates.

FORMS – See Appendix B

- Field Level Risk Assessment
- Hydrovac Field Level Risk Assessment
- Pre-Job Hazard Assessment
- Job Safety Analysis
- Safety Meeting and Hazard Assessment
- Tailgate Meeting

SECTION 5: SAFE WORK PRACTICES

Safe work practices explain ways of controlling hazards and doing jobs to maintain a minimum risk to people and property. Safe work practices are generalized statements of what you should or should not do in order to do a job or task safely. Safe work practices are a great topic for toolbox talks, as they serve as good reminders of the 'right' way to do things.

To reduce risks, Pidherney's has several generalized safe work practices. Due to the diversity of circumstances and situations within Pidherney's the information contained in Safe Work Practices cannot be considered complete or applicable in every situation.

Supervisors and employees must refer to Federal and Provincial Health and Safety Legislation, industry practices, customer policy and site-specific requirements to ensure that the work is accomplished safely.

Development

Each Division of Pidherney's will have specific Safe Work Practices developed for their operations.

Employees, Supervisors and Management of Pidherney's will be involved in the development and/or review of these Safe Work Practices.

All Safe Work Practices will be developed using the standard Pidherney's Safe Work Practice format and are based on a task hazard assessment.

Review

Safe Work Practices will be periodically reviewed to ensure that they are complete, accurate and applicable.

Suggestions for additional Safe Work Practices or changes to the existing Safe Work Practices can be made in writing and submitted to Pidherney's Safety Department.

Approval

The Safety Department and Senior Management will approve all Safe Work Practices for Pidherney's.

Availability

Safe Work Practices applicable to the work being performed will be available and reviewed with all workers at the work site prior to the start of the task.

Applicable Safe Work Practices should be reviewed at Safety/Tailgate Meetings before the start of work. Safe Work Practices will be used in job-specific training to instruct employees in their job duties and to verify employee competency and understanding.

Responsibilities

All Employees

Follow the guidelines described in a Safe Work Practice.

Supervisors/Foremen

Ensure that the Safe Work Practices and associated Safe Operating Procedures are available, reviewed, and followed at the work site.

Codes of Practice

Codes of Practice are specific Safe Work Practices that are required by OHS Legislation for hazardous work, and normally Policies, Procedures, and Practices. Pidherney's Safety Department will develop all Codes of Practices.

SECTION 6: Safe Operating Procedures

SECTION 6: SAFE OPERATING PROCEDURES

Safe Operating Procedures are a written step-by-step description of how a particular task is to be performed it is used during performance of the work by the person performing the work (or by two people doing the work – one reading and one doing). Examples of procedures include: equipment start-up or shut-down procedures; normal operating procedures; written operating instruction, abnormal operating procedures, emergency procedures, special test procedures, maintenance procedures, preventative maintenance procedures, construction installation procedures, calibration procedures, hydrostatic test procedures, and inspection procedures. Should further clarification be required, contact your designated safety personnel.

Development

Each Division of Pidherney's will have specific Safe Operating Procedures for their operations.

Procedures will be developed for high-hazard work or where historical information, legislation, a hazard assessment or customer requirements dictate.

Employees, Supervisors and Management of Pidherney's will be involved in the development and/or review of these Safe Work Procedures.

All Safe Work Procedures will be developed using the standard Pidherney's Safe Work Procedure format and are based on task hazard assessment.

Review

Employees, Supervisors and Health and Safety Advisors will periodically review Safe Operating Procedures to ensure that they are complete, accurate and applicable.

Availability

Safe Operating Procedures applicable to work being performed will be available to all employees at the work site.

Safe Operating Procedures must be reviewed at Tailgate/Toolbox Meetings before the start of any work using the procedure.

Safe Operating Procedures can be used in job-specific training to instruct employees in their job duties and to verify employee competency and understanding.

Responsibilities

All Employees

Follow established steps described in a Safe Operating Procedure.

Supervisors/Foreman

Complete a Hazard Assessment to determine the need for a specific procedure.

Ensure that the Safe Operating Procedures and associated practices are available, reviewed and followed at the work site.

Ensure that all steps in a Safe Operating Procedure are carried out in accordance with the Procedure.

SECTION 6: Safe Operating Procedures

Deviations

Safe Operating Procedures do not allow for flexibility. Deviations for Safe Operating Procedures require a written Hazard Assessment detailing the changes. Changes must be approved by the Safety Advisor and if required by the client/owner site representative.

SECTION 7: PERSONAL PROTECTIVE EQUIPMENT (PPE)

The use of Personal Protective Equipment (PPE) is the final line of defense between employee and hazard and applies to all employees at the work site. This includes subcontractors, visitors, clients or customer representatives.

Where possible, hazards will be eliminated or controlled to reduce the risk associated with a specific task.

These controls include:

- Elimination of the hazard
- Isolation of the hazard
- Administrative controls

Pidherney's will make available all required PPE for its employees. All employees will receive training in the use, care, maintenance and storage of the PPE issued to them at orientation, tailgate & safety meetings.

All Personal Protective Equipment will be within the requirements of the local OHS legislation and the specific requirements of a customer or client. Where site-specific PPE requirements exist, employees of Pidherney's will follow requirements.

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

All PPE that is of questionable reliability, damaged or in need of service or repair will be removed from service immediately.

All PPE that has been removed from service will be tagged "OUT OF SERVICE" or destroyed immediately. Any PPE tagged "OUT OF SERVICE" will not be returned until repaired and inspected by a qualified person.

All PPE when used properly must not endanger the worker.

7.1 PPE BASED ON LOCATION, JOB AND POSITION

Pidherney's will provide the following PPE as required by the OH&S Act at no cost to the employee:

- Safety glasses
- Hearing protections
- Specialized Personal Protective Equipment, such as fall arrest and gas monitors

Pidherney's, should a worker be unable to provide their own, will make available the following PPE as required by OH&S and client/owner requirements:

- Steel toed boots with adequate ankle support
- Hard Hat
- Gloves

- Fire Retardant Coveralls
- High Visibility Coveralls
- High Visibility Safety Vest

If any employee requires basic PPE for a job, the employee shall contact their designated safety representative to find out what Pidherney's will supply and what the employee is responsible to provide. Please note that on oilfield sites signage will be posted with the required PPE for that location.

All PPE used by this company shall conform to OH&S Regulations and relevant Safety Standards.

Truck Drivers

PPE Requirements for all Truck Drivers (on any site), all employees working on Oilfield sites, Pidherney's sites and Gravel Pits:

- CSA Approved safety boots with ankle support
- Safety Glasses
- Hard Hat
- High Visibility Stripes
- Gloves as required
- Hearing Protection
- Any additional PPE as required by site specific policy or existing hazards.

Earthworks and Highway Crews

PPE Requirements for Earthworks & Highway Construction:

- CSA Approved safety boots with ankle support
- High Visibility Vest
- Gloves as required
- Hard hats
- Safety Glasses when a hazard exists for particle or object to enter the eye
- Hearing protection
- Respiratory protection as required
- Any additional PPE as required by site specific policy or existing hazards.

Underground/ Water & Sewer

PPE Requirements for Underground Construction:

- CSA Approved safety boots with ankle support
- High visibility vest
- Hard Hat
- Safety Glasses when a hazard exists for particle or object to enter the eye
- Gloves as required
- Hearing Protection
- T Shirt
- Respiratory protection as required
- Any additional PPE as required by site specific policy or existing hazards.

Shop (work in shop/wash bay/and mechanics):

- CSA Approved safety boots with ankle support
- Full sleeve coveralls

- Safety Glasses as required
- Gloves as required
- Hearing Protection
- Respiratory protection as required
- Any additional PPE as required by site specific policy or existing hazards.

When working in the shop, protective equipment is placed in areas where it should be worn. Safety glasses are mandatory in the shop. Additional eye protection **must** be worn when:

- Welding
- Using grinders
- Washing equipment

In addition to any of these minimum requirements, additional PPE should be utilized based on the following information:

- Hazard Assessment
- Material Safety Data Sheets
- Customer/Client Requirements
- OHS Legislation Requirements

All above mentioned personnel must be clean shaven when deemed necessary. Hair must be pulled back and tucked under the collar. Work boots must be tied to the top at all times to ensure ankle support. All requirements shall be posted at the worksite where applicable.

7.2 RESPONSIBILITIES

All Employees will:

- Wear PPE as required in Pidherney's policy, practices, and procedures or where site specific hazard assessment requires additional PPE in addition to Pidherney's basic PPE requirements.
- Care for and maintain the PPE issued to them according to manufacturer recommendations, Codes of Practice and related training they have received.
- Use only approved PPE that is clean and in good condition or repair.

Supervisor/Foreman will:

- Wear the required PPE for the work they are supervising.
- Ensure that employees under their direction comply with the PPE requirements of Pidherney's and the customer's health and safety policy.
- Identify additional PPE requirements for specific job sites.
- Ensure that the required PPE is available at the work site.
- Enforce compliance with Pidherney's Safety Management System.
- Ensure that PPE does not itself endanger the worker.

Managers will:

- Set an appropriate example for employees under their direction.
- Wear the required PPE for the work being done.
- Ensure that the required PPE is available at the work site.
- Ensure that appropriate maintenance logs are kept for specialty PPE.
- Enforce compliance with Pidherney's Safety Manual.

Company Health, Safety & Environment Department will:

- Ensure that PPE standards are developed for the tasks performed by Pidherney's.
- Recommend PPE that meets applicable government, industry or customer standard(s) governing its use.
- Include PPE as a component of the work site inspection.
- Ensure compliance with Pidherney's Safety Manual.

7.3 PERSONAL PROTECTIVE EQUIPMENT STANDARDS

The following standards apply to all operations and divisions of Pidherney's. Where the standards of this program are impractical, a documented deviation must be completed based on a written hazard assessment. Alternative control measures must be put into place to reduce or eliminate the hazard.

Head Protection

Your head houses your brain, which controls all the motor and sensory functions of your body. Any blow to your head, no matter how slight, can be very dangerous and result in injuries ranging from dizziness to total disability and even death.

- All employees required to wear head protection will wear CSA or ANSI approved hard hats. Where significant risk of lateral impact has been identified, CSA or ANSI approved lateral impact side helmets must be worn.
- All managers, superintendents and foremen will be identified utilizing a white hard hat. Employees whom do not hold these positions must wear colour coded hardhats as per Pidherney's SSE Green Worker Program

Eye Protection

If a worker's eyes may be injured or irritated at a work site, an employer must ensure that the workers wear properly fitted eye protection equipment that is approved to:

- CSA Standard Z94.3-07, Industrial Eye and Face Protectors.
- Is appropriate to the work being done and the hazards involved.

Pidherney's will ensure that, if wearing contact lenses poses a hazard to the worker's eyes during work, the worker is advised of the hazards and the alternatives to wearing contact lenses. Where required by MSDS, signage, or where indicated by a hazard assessment, close-fitting splash resistant goggles must be worn when handling chemicals.

Electric Arc Welding

A worker must not perform electric arc welding if it is reasonably possible for another worker to be exposed to radiation from the arc unless the other worker is wearing suitable eye protection or is protected by a screen.

Face Protection

Where there is a risk of facial injury, employees must wear appropriate face protection in addition to safety glasses. These activities include, but are not limited to:

- Welding, buffing grinding, and machining of metal.
- Operation of a bench grinder
- Operation of a chain saw
- Operation of a string-type weed trimmer

- Pressure washing equipment
- Working in a trench, excavation, bore pit

Hearing Protection

Hearing protection with a noise reduction rating (NRR) of 25 or higher must be worn where noise levels exceed 85 dBA over an 8 hour shift, or identified by signage or other means on a work site.

Hand Protection

Where there is a risk of injury to the hand, adequate hand protection must be worn. This includes leather gloves, chemical resistant gloves (check MSDS), cut-resistant gloves (Kevlar), etc.

Foot Protection

All employees on a work site must wear CSA approved, Grade One (green triangle), high cut boots, with ankle support, laced to the top and appropriate to the work conditions. (Rubber boots for wet conditions, winter boots for cold conditions, etc.) No running shoes of any kind are permitted on Pidherney's work sites. The only exceptions are in an office environment.

Work boots must be in good repair. It is the responsibility of the employee to ensure that their footwear is in proper working condition. Exposed steel toe-caps are not permitted.

Limb and Body Protection

If there is a danger that a worker's hands, arms, legs or torso may be injured, or their health affected by contact or absorbed through the skin, Pidherney's will ensure that the workers have properly fitted hand, arm, leg or body protection equipment that is appropriate to the work, the work site and hazards identified.

These include but are not limited to:

- Chain saw chaps
- Chemical resistant suits
- Leather welder chaps and gauntlets

Fire Retardant Clothing (FRC)

If a worker may be exposed to a flash fire, electrical equipment flashover, or any other potential flammable atmosphere, Pidherney's will ensure that the worker wears flame-resistant outerwear and use other protective equipment appropriate to the hazard.

A worker must ensure that the clothing worn beneath flame resistant outerwear and against the skin is made of flame-resistant fabrics or natural fibers that will not melt when exposed to heat.

- Fire retardant clothing must be used where:
- There is a risk of fire or explosion.
- Employees required working within 50 m of a live facility.
- Legislative requirements dictate.
- Customer requirements dictate.
- Company specific Policies and Procedures dictate.

7.4 SPECIALIZED PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection

Where respiratory protection is required, appropriate protection must be worn, as per Pidherney's Code of Practice for Respiratory protection.

Respiratory protection must be supplied at the expense of Pidherney's. No costs for respiratory protection will be passed onto the employee.

Self-Contained Breathing Apparatus

Company Scott air packs are to be thoroughly inspected prior to use. This could involve servicing by a safety company. Users of self-contained breathing apparatus must have a valid H₂S ticket, be fit tested and demonstrate proficiency in using the S.C.B.A.

Scott air packs are under the direct control of the company safety department.

Fall Protection

Pidherney's will ensure workers use a fall protection system at a temporary or permanent work if:

- a) A worker may fall three (3) meters or more, OR
- b) There is an unusual possibility of injury if a worker falls less than three (3) meters

Fall Protection Plan

Pidherney's will develop procedures in a fall protection plan for a work-site if a worker at the work-site may fall three (3) meters or more and the workers are not protected by guardrails.

A fall protection plan must specify:

- a) The fall hazards at the work site
- b) The fall protection system to be used at the work site
- c) The procedures used to assemble, maintain, inspect, and disassemble the fall protection system, and
- d) The rescue procedures to be used if a worker falls, is suspended by a personal fall arrest system or safety net and needs to be rescued.

Pidherney's will ensure that the fall protection plan is available at the work-site before work with a risk of falling begins.

Instruction of Workers

Pidherney's will ensure that a worker is trained in the fall protection plan and the safe use of the fall protection system before allowing the worker to work in an area where a fall protection system must be used.

Pidherney's will ensure that all employees are shown and competent in the proper use and care of all PPE (Eye protection, hearing protection, body protection, head protection).

Gas Detection Equipment

Anyone working in an area with the potential for the release of toxic gas, explosive environment, or oxygen deficient atmosphere shall be equipped with a personal gas monitor.

Workers must conduct the testing;

- with suitable test equipment,

- ensure it is properly calibrated,
- used in accordance with the manufacturer's specifications, and
- bump test prior to each use and beginning of each shift.

7.5 CARE AND FITTING OF PERSONAL PROTECTIVE EQUIPMENT

Head Protection

Fitting

- Tighten the head band on the hard hat so that it does not slip off your head when bending over, nodding or moving head side to side.
- The ratchet suspension is to tighten or loosen the ratchet knob.
- The quick fit suspension harness is adjusted by sliding the head band guides to desired position, so the mechanism stays securely in place while being worn. Squeeze the sides of the lock between thumb and forefinger to loosen. The pin lock suspension is adjusted by the guides to the desired position and locking it in place by pressing the pins into corresponding holes.
- Disengage pins to loosen.
- To adjust wearing height, remove the suspension. Slide each attachment tab up or down, by pushing them, with a slight rotational movement. Set the four attachment points to the desired position. Reinstall the suspension.

Installation/Replacement of Suspension

Remove suspension by hand, by unclipping the four or six attachment tabs from the shell.

Inspect all elements of the hard hat and replace any worn or damaged parts. To reinstall the suspension, pass the attachment tabs through the openings in the inner shell, then slide the tabs fully into the corresponding shell cavities, until fully engaged. Check if harness is properly attached by tugging sharply on each strap. Some models have a foam inner shell; ensure it is properly seated in the shell before clipping the suspension.

Inspection

Shell and suspension should be visually inspected before each use for signs of dents, cracks, penetration and damage due to impact, rough treatment or wear that might reduce the degree of protection originally provided. A hat with worn, damaged, defective parts, or which has received a severe impact should be removed from service.

Cleaning

Shell and suspension should be scrubbed with a mild detergent and rinsed in clear water approximately 60C (140 F), after rinsing, hat components should be carefully inspected for signs of damage.

Eye Protection

Safety Glasses:

Fitting

Ensure safety glasses fit snug on face. They shouldn't fall off if you bend down. If you are wearing safety glasses over original glasses, ensure you have the proper fit.

Replacement

Safety glasses should be replaced when lens is scratched or when glasses are broken in any way.

Cleaning

Used only approved cleaning wipes, or glass cleaner with a non-abrasive material.

Goggles:

Fitting

Ensure goggles have a snug fit and seal around the eyes to protect from harmful substance entering the eyes.

To adjust the fit of goggles, pull strap at each side of the face piece until the fit is snug and a seal is formed around the eyes.

Replacement of lenses

Use only replacement lenses made to fit the particular goggle to be fixed. Be sure when lenses have been replaced that you test the goggle for proper fit and seal around the eyes.

Cleaning

Use only mild soap to clean; absolutely no solvents are to be used to clean goggles.

Face Shields:

Fitting

A face shield should be snug to the workers head to prevent falling off or down when bending over, nodding, or shaking head from side to side. The shield should cover the workers face from the top of the forehead to below the chin.

Inspection

Face shields should be visually inspected for wear or defects before each use. Any shield showing damage or defects should not be used. A spare face shield should be on hand at all times in case the shield gets broken, scratched or damaged in some way.

Cleaning

Warm water and mild soap can be used when cleaning face shields, cleaning solvents should not be used.

Hand Protection

Cotton, Wool, Leather Gloves:

Fitting

Ensure gloves form a snug fit to hand, so they are not easily caught in anything and do not easily fall off the hand. Fingers should reach the tip to ensure proper grip.

Inspection

Gloves should be visibly inspected for wear or defects before each use. Any gloves that show damage or defects should not be used.

Cleaning

Gloves can be brushed off, washed in warm water with a mild detergent and hung to dry.

Fire Retardant Coveralls:

Fitting

Coveralls should fit closely to a worker's body, arms and legs. The legs should not be longer than the ankle. Coveralls should be done up at all times.

Inspection

The coveralls should be inspected each day before starting the assigned job. Check for any defects or damage, any rips, tears or signs of wear must be dealt with immediately.

Cleaning

Fire retardant coveralls can be machine washed with a detergent that does not contain bleach or peroxide and they need to be hung to dry. Fabric softener should never be used on these coveralls.

High Visibility Vest:

Fitting

High visibility vest should fit close to the workers body.

Inspection

High visibility vests should be inspected each day, before starting the assigned job. Any defects or damage, rips, tears or significant signs of wear must be dealt with immediately. It must be ensured that the vest is able to perform its duty of clearly identifying the workers location.

Cleaning

High visibility vest can be machine washed and should be hung to dry.

Steel Toed Boots:

Fitting

All work boots must fit properly. They must have an ankle support and be CSA approved. Any wearing off of the material over the steel toe requires a new pair of boots. This also applies to steel toed rubber boots.

Inspection

Check the boots for wearing over the steel toe, check for laces that could be ready to break, and check for any holes, punctures, or tread problems. If the boots are rubber boots, check for any leakage or breaking down of the rubber.

Cleaning

All boots are to be kept clean at all times. These can be cleaned with mild soap and water. Liners should be pulled periodically to be dried out from moisture.

Winter Clothing:

Fitting

Winter clothes, even though they are bulky, must be a proper fit for the worker. Excess clothes are apt to catch on moving equipment or become bulky to the worker if the weather changes to warm.

Inspection

Winter clothes must be inspected for warmth. Make sure the coats are warm and comfortable. Check for rips, tears, and general wear and tear on clothing as this is a hazard.

Cleaning

Clean as per manufacturers guidelines

Hearing Protection:

Fitting

With clean hands, roll entire plug into narrowest possible crease and place in the hand or between the fingers. Reach over head with free hand, pull ear back and up and insert the ear plug well inside the ear canal. Hold for 40 seconds until the plug fully expands in ear canal.

WARNING: remove plug slowly with twisting motion to gradually break the seal.

While in a noisy environment and with ear plugs inserted, cup both hands over ears and release. The ear plugs should be blocking enough noise so that covering them with your hands should not result in a significant difference. If proper fit is not obtained, move to a quiet location and repeat fitting instructions.

Safety Harness:

Fitting

Harnesses should be fitted to each individual. Make sure the harness fits properly and the worker has tried the harness on before leaving for the job assigned. Harnesses should fit snugly with any belts or straps being tucked into the harness to eliminate catching on anything that could cause injury to the wearer.

Inspection

Harnesses need to be checked before each use. If not used on a regular basis; they should be checked for wear and tear, rips or runs prior to any use. Any defacing of the harness renders it unusable. Buckles, latches, loops and strapping should all be checked each time. All harnesses have an expiry date and should be replaced once this date has passed.

Cleaning

Harness's need to be cleaned as per manufacturer's guidelines. Warm soapy water will clean a harness, no chemicals are to be used other than suggested in the manufacturer's guidelines. Cleaning products not authorized for use can break down the fibers in the harness and make it unable to be used. There can be no writing or stickers placed on harnesses.

All workers must use and wear properly, the appropriate PPE for the job assigned. Training and instruction will be available to all workers. If any PPE is unable to perform the function for which it is designed for, then the worker shall replace it with acceptable PPE.

SECTION 8: PREVENTATIVE MAINTENANCE

Pidherney's Preventative Maintenance Program has been developed and implemented in conjunction with Pidherney's Preventative Maintenance Policy.

8.1 PURPOSE

Pidherney's requires that all tools, vehicles, and equipment shall be properly maintained in accordance with industry standards, legislated rules and manufactures guidelines to ensure the highest level of safety for our workers and the general public. In addition, our maintenance program will also aid in the reduction of risk or injuries to employees or damage to property and lost production.

Pidherney's has an established inventory on all company owned equipment.

Certification/Inspections, repairs and servicing of equipment and vehicles will be performed as required.

Files and databases will be maintained to provide accurate and accessible information regarding the service and maintenance history of Pidherney's equipment and vehicles. When any new equipment is purchased it will be added to the data base to ensure that up to date records are kept.

8.2 DEFINITIONS

Mechanic

A worker responsible for the service, repair and continuous maintenance of equipment and trucks that is certified to perform specific duties required by Pidherney's according to manufacturer's specifications and Government Regulations.

Operators

Competent persons who are responsible for the operation and daily maintenance of heavy equipment or trucks to perform specific duties required by Pidherney's, manufacture's specifications and Government Regulations.

8.3 RESPONSIBILITIES

Management

It is the responsibility of Pidherney's Equipment Operations Manager for the implementation and maintenance of the Preventative Maintenance Program. Management will apply these standards on a consistent basis at all locations and will ensure that all personnel who are involved with preventative maintenance of Pidherney's equipment and vehicles are competent to do so.

Superintendents/Foreman

Superintendents/Foreman will ensure all preventative maintenance is carried out accordingly by the employees or qualified personnel depending upon the maintenance type. Superintendents/Foreman are responsible to facilitate and/or provide proper instruction and training to their workers on protection requirements and ensure that only trained and qualified personnel are permitted to perform maintenance on any equipment or vehicle.

SECTION 8: Preventative Maintenance

Employees

All personnel who carry out maintenance activities on behalf of Pidherney's will comply with all applicable rules and regulations set out by Pidherney's and with appropriate Provincial and Federal regulations with respect to the maintenance, inspections and repairs of equipment and vehicles.

All employees shall regularly check all tools, vehicles and equipment that they are working with, and shall take out of service any tool, vehicles or equipment that pose a hazard due to need of repair.

Safety Advisors

The Pidherney Safety Advisors will assist management, supervisors, foreman and employees in compliance with the Preventative Maintenance Program.

Corporate Health and Safety Department

The Corporate Health and Safety department will assist with compliance with the Preventative Maintenance Program as well as provide the expertise necessary to ensure the success of the overall Health and Safety program.

8.4 PROCEDURE

A copy of the Preventative Maintenance Program will be maintained at each shop location where maintenance and inspections are carried out under the program. A copy of this program will be readily accessible to all employees that carry out preventative maintenance and inspections.

Maintenance Personnel Qualifications

The qualifications of maintenance personnel are vital to ensuring the success of the maintenance program. All individuals who perform maintenance work must have the appropriate skills and the mechanics must have accreditation and certification.

Operator Qualifications and Training

The competency of the equipment operators is the key to the success of our Maintenance Program. Employees operating Pidherney's mobile equipment, etc., must have the appropriate skills. This applies to company employees and contracted equipment operators.

The approval process includes the following:

- Possession of a valid driver's license. (Pre-qualified to drive Pidherney's vehicles)
- Successful completion of an Operator Competency Checklist administered by competent and authorized personnel, typically the project superintendent/foreman.

Operators must be trained in the following areas:

- Roles and Responsibilities
- Knowledge of the manufacturer's operation and maintenance manuals.
- How to communicate to the maintenance department when there is a problem with equipment.
- Hand signals and/or other safety requirements established by Pidherney's, clients and regulations.

SECTION 8: Preventative Maintenance

Daily Equipment Pre-Use Inspection

Operator's Daily Maintenance Report

Equipment operators are responsible for the daily inspection of the equipment prior to use. A completed daily visual inspection of each piece of mobile equipment is necessary to ensure that the unit is safe to operate both for the personnel and for the equipment itself. This includes all fluids being at the correct levels and all components being intact prior to start up.

Vehicle Safety Trip Inspection Report

Operators of trucks that have a combined truck and trailer licensed mass that is 11,794 kg or more are responsible for the daily inspection of the equipment prior to use. A completed daily visual inspection of each truck is necessary to ensure that the unit is safe to operate both for the personnel and for the public. This includes all fluids being at the correct levels and all components being intact prior to start up.

The items to inspect are indicated on the Operator's Daily Maintenance Report and the Vehicle Safety Trip Inspection Report. Any defect found must be reported and recorded on the appropriate form used for the specific equipment or truck being operated. During the completion of a Pre-use Inspection, ensure a visual inspection of the work area to confirm there are no other personnel working near the piece of equipment. Daily Maintenance Reports and Vehicle Safety Trip Inspection Reports will be handed in at the end of each day. The operator is responsible for the Equipment/Truck throughout the entire work shift. All operators must conduct walk around inspections throughout the work shift to ensure the equipment has no major defects. Defects not affecting the safety or operational ability of the equipment must still be reported.

All mobile equipment and vehicles will be inspected and maintained on a regular and continuous basis according to the manufacturer's specifications. The records documenting the daily maintenance checklist and repairs and/or maintenance will be retained in the appropriate equipment or vehicle file.

Maintenance of equipment, servicing, etc., will be performed only in approved areas. Spills and leaks from equipment will be cleaned up promptly and disposed of in accordance with product MSDS.

WARNING – NEVER WORK ON EQUIPMENT UNLESS IT IS LOCKED OUT.

For the complete guide to lockout procedures, refer to the Lock Out/Tag Out Procedure in the SOP's.

Mechanic Inspection Notification:

- Pidherney's mechanics utilize a green/red tagging system that indicates if a tool, truck or piece of equipment is unfit for use or ready and safe for use in the field.
- Mechanics perform an annual inspection on equipment and deemed it either **Green** using a **Green** tag to indicate the machine passes the inspection or **Red** using a **Red** tag to indicate the machine has not pass the inspection.
- If there are any defects they are corrected and /or repaired and the **Red** tags are removed and dispatch or the superintendent is notified that the machine is safe and ready for work.
- **Green** Tagging- Service will be performed at Intervals of 250 hrs.
OR
Prior to a machine being dispatched to a job location that requires certification for entry onto customer's worksite: i.e. Shell, Midwest, etc.

SECTION 8: Preventative Maintenance

Equipment Repair Notification:

Defects and required repair

- If defects to equipment occur while in use in the field they must be reported to the Equipment Manager for repair via an email sent to "Equip" advising of the defects.
- If defects to equipment occur in equipment yards report defects to the Service Shop foreman & note on "Operators Daily Maintenance Report".
- All repairs or requests (i.e. mechanical inspection) needing to be completed prior to the Green tag; requires the "Out of Service" box to be checked on the checklist
- If checklist is not completed the machine is classified as no repairs required until the next 250-hour Service. Please make a note on the checklist for the reason that the unit is out of service.

Equipment Department Checklist Requirements:

Shop Mechanic Service Checklist

Servicing is completed at RMH or BF Shop Affix appropriate tag (designating **green** or **red** needs more service)

Field Mechanic Service Checklist

Servicing performed in the field by Field Mechanic's

- If a **Red** tag is required due to extensive repair the Field mechanic or Foreman will report action to the Equipment Manager. If repairs are incomplete or are too extensive to complete in field mechanic will complete the checklist and Affix Appropriate Tag
- The Equipment Manager will decide if repair is to be completed onsite or if the machine will remain tagged out of service and moved back to RMH or BF for maintenance.

Foreman Checklist

- To be completed when a machine is being transported to another foreman's location or is released to RMH/BF yard
- Email hours and condition to Equipment Manager prior to transporting.
- Site to site infield moves of equipment remaining under the control of the same Foreman Do Not Require a Completed Checklist, or Hours & Condition reporting.
- Report transport of equipment to dispatch and Equipment Manager.

Dispatch Checklist

Completed On arrival of equipment to yard

- Equipment passes inspection and it is not due for 250hour service machine is ready for work until next service.
- Ensure all equipment has its proper safety items: Spill kit, Fire Extinguisher (present and are certified), etc. remove and replace expired fire extinguishers and ensure spill kit is complete.

All Equipment Checklist sheets need to be submitted to Warranty Manager for processing via email, text, or delivered hard copy.

Email: equip@pidherneys.com and/or 403-846-0325

Spreadsheet is located: [S: Drive Shop & Warranty "Equipment Repair List & Status](#)

Truck Repair Notification:

- If defects to truck are identified or occur while in use the driver must report the defect to the Warranty Managers for repair advising of the defects.

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- Warranty Manager will inform Mechanics in the BF Shop, Dispatch, Operations Manager, Equipment Manager.
- Truck is parked in BF Yard, keys are removed and truck is locked.
- Truck is then placed in the shop for repair. If repairs are not completed due to the extent of defects or time constraints. The truck is removed from the mechanics bay and will be parked in yard. Where a Red Tag will be affixed to the steering wheel, keys will be removed and truck will be locked.
- In the RMH Shop the Warranty Manager, Equipment Manager is notified of any defects identified and the trucks are placed in the repair line up.
- Once defects/ repairs are completed the Truck is placed back into the in service line up ready to be use for work.
- After repairs are completed the mechanic will close maintenance loop by signing off on the pre-use inspection.

Small Equipment Notification:

- Small equipment (i.e. light plants, plate tampers and trailers) are brought into mechanics bay when a defect is noted.
- The small equipment is then red tagged including a description of the defect.
- Once the defects are correct and/or repaired the red tag will be removed a green tag will be affixed and Dispatch will be notified that the machine is ready for work.

Defective Tools

Defective tools can cause serious injuries. If a tool appears defective, DO NOT USE IT. Remove it from service, tag the tool with flagging ribbon etc. to identify it as being defective, report it to the employer and return it as soon as possible for repair or replacement. Be aware of defects such as:

- Chisels and wedges with mushroomed heads.
- Split or cracked hammer or shovel handles.
- Chipped or broken drill bits.
- Pipe wrenches with worn jaws.
- Tools which are not complete, such as files without handles, etc.

All employees will be instructed and trained by a qualified person appointed by Pidherney's in the safe and proper inspection, maintenance, and use of all tools and machinery that they are required to use. Guarding to protect employees is required in the following circumstances:

- Machines that have exposed moving, rotating, electrically charged or hot parts or that process, transport or handle material that constitutes a hazard to an employee will be equipped with a machine guard that:
 - Prevents the employee or any part of his/her body from coming into contact with the parts or material
 - Prevents access by the employee to the area of exposure to the hazard during the operation of the machine
 - Makes the machine inoperative if the employee or any part of his/her clothing in or near a part of the machine that is likely to cause injury.
- No machine shall be used if the guards are not in their proper position

To ensure safe use of hand held tools, remember:

- Never use a defective tool even for a short duration.
- Inspect all tools prior to use; and
- Ensure defective tools are repaired or replaced.

SECTION 8: Preventative Maintenance

Air, gasoline or electric power-driven tools require skill and focus on the part of the user when they are in good condition. Do not use power tools when they are defective in anyway.

Watch for problems like:

Broken or missing guards.

- Insufficient or improper grounding due to damage on double insulated tools.
- No ground wire (on plug) or cords of standard tools.
- The on/off switch not in good working order.
- Tool blade is cracked or worn.
- The improper grinder wheel is being used, or
- A guard that has been wedged back on a power saw.

All tools found to be defective will be immediately taken out of service and returned to Pidherney's shops for repair or replacement.

* For further information, refer to current jurisdiction's OH&S Regulations *

SECTION 9: ORIENTATION, TRAINING & COMMUNICATION

The orientation and training process utilized by Pidherney's was developed to assist in making sure applicants are adequately qualified for the positions they are applying for and are made aware of our fit for duty policies and procedures. Pidherney's also ensures workers receive the training they require to be successful in the position they hold.

All applicants undergo a hiring procedure which consists of four phases: Application Phase, Interview Phase, Orientation Phase and Safety Training Phase.

9.1 NEW HIRES

All applications and resumes are to be directed to Human Resources Department. For Hourly or Salary employees the following is to be provided to and completed with the help of Human Resources Department.

Employee application/Resume outlining work history

TD1 and TD1AB including complete banking information or blank cheque

Orientation package

Copy of any relevant certificates, valid safety certificates

Where applicable to the position, a copy of valid driver's license: (Drivers must have correct class of license and endorsement as per provincial and federal regulatory requirements before operating any company vehicle).

Current (last 30 days) abstract

Group benefits information and application forms

General payroll information

9.2 ORIENTATION

1. Training Administrator reviews Health and Safety Handbook with the new hire. The new hires are provided an acknowledgment form to sign.
2. Training Administrator reviews the following information with new hires. New hires are provided the following documents of which they must complete and sign:
 - a) New Hire information
 - b) Self-disclosed Fitness Assessment
 - c) Driver Disclosure of License
 - d) Driver Abstract Consent
 - e) Personal Protective Equipment
 - f) Client Specific SSE Form (if applicable)
 - g) Experience Self Evaluation
 - h) Alcohol & Drug Policy Certificate of Receipt
 - i) Fatigue Awareness
 - j) Emergency Response Plan
 - k) Modified Work Program
 - l) Service Truck Use/Heavy Truck Use
 - m) Safety Work Practice - Backing Up
 - n) Payroll Deduction Authorization
 - o) Job Description

3. New Hires then receive and review copies of the following policies and procedures as applicable to their position:
 - a) Pidherney's Company Rules
 - b) Pidherney's Company Safety Policy
 - c) Safety Rules and Responsibilities
 - d) Rights and Obligations
 - e) Violence and Harassment Policy
 - f) Pidherney's Alcohol & Drug Policy
 - g) Personal Protective Equipment
 - h) Media Relations
 - i) Confidentiality Agreement
 - j) Acceptable Use of Technology
 - k) Driver Compliance (as required)
4. Employees must then review and complete the 'Orientation Checklist' document they receive and sign off as to what has been discussed as part of the orientation.
5. Pidherney's Orientation Quiz is administered to all new hires.

9.3 RE-HIRE ORIENTATION

A Re-hire Orientation is required when an employee returns to Pidherney's but has been absent from the company 3-12 months from previous last day worked. If an employee has been absent from company 1-3 months, they are required to see Human Resources for benefit purposes and complete any out of date requirements. Any employee whose last day of work is outside 1 year will be required to complete the new hire orientation. Pidherney's requires the same forms as required for the new hire orientation.

9.4 SAFETY TRAINING

The following training must be completed prior to entry of any job site in addition to any job specific training. Certifications must accompany the employee at all times while on the job site. Copies of certifications held by the employee are kept within the employee's personnel file.

1. WHMIS 2015, TDG (if required), Overhead Power Lines, Fatigue Management and Field Level Risk Assessment, Fire Extinguisher, Hazard Assessment training is conducted as part of the new hire orientation training. All that successfully complete this training will be issued certification.
2. CSTS or RSTS (including applicable modules) for Civil Employees.
3. Electronic General Safety Orientation for Oilfield Employees
4. Oilfield site specific online orientations will be completed prior to going to work for oilfield employees as required for job site.

9.5 COMPANY AND SITE-SPECIFIC ORIENTATIONS

If applicable, based on client/owner requirements, company orientations will be completed prior to a worker being dispatched to the owner/client job site.

Employees will be provided with site specific orientations, as per owner/client requirements, upon arrival to the job site.

9.6 SUPERVISOR & SITE SAFETY ADVISOR ORIENTATION

All Supervisors and Site Safety Personal will receive training in the administrative requirements their job requires. In addition to this, all Supervisory and Site Safety personnel will receive training in the safety related responsibilities of their position required and permit completion.

9.7 SHORT SERVICE EMPLOYEE GREEN WORKER PROGRAM

Upon hire, each worker who is deemed a SSE or Green worker will be required to complete the following:

- Experience Self-Evaluation form
- Self-Disclosed Fitness Assessment form
- Pidherney's SSE/Green Worker form
- Client Specific SSE form (where applicable)
- RSTS/CSTS – Civil Division
- CSTS – Oilfield Division

Upon completion of new hire orientation, these forms will be forwarded to Safety or Supervisor personnel for review. The Safety or Supervisor Personnel deems the new hire as SSE/Green or Competent based on their work experience.

For Owner/Clients that do not require the tracking of SSE information; the employees experience self-evaluation and self-disclosed fitness assessment forms will remain in the employee file for future evaluation of employee competency.

The program is aimed at new or inexperienced workers (internal promotions, new hires, and summer students) that have less than 6 months' experience in a current skill or position over the last 12 months. If required by the Owner Client, they will be notified when a Short Service Employee will be working at their site.

An email will be sent to their Supervisor/Foreman in regards to the SSE/Green Worker, outlining their experience and any other pertinent information they require.

To recognize a new employee, they will be issued a green hard hat at orientation. This will allow fellow workers and supervisors to more readily identify the new worker. Supervisors are also to discuss the short service worker at the toolbox or tailgate meeting prior to the job starting. The percentage of SSEs should not exceed the allowable ratios set out by Owner Client site that the SSE will be working at.

When the worker arrives on site, the Supervisor/Foreman is requested to assign a competent mentor who will conduct a site orientation (hazard assessment, ERP, First Aid, Etc.) and fill out and sign the SSE/Green Worker Form. The form is then returned to the designated safety personnel for review and forward to Human Resources.

Through site visits by the designated safety or management, the process of the SSE/Green Worker is monitored and identified on the HSE Inspection Report. The Supervisor/Foreman will also identify the worker on their daily tailgate meeting.

After 90 days, the designated safety or management conducts a Worker Assessment with the assistance of the Supervisor/Foreman. If the SSE/Green Worker is deemed competent through monitoring for compliance with health and safety policies and procedures that the worker is competent in his job position, they will “graduate” to a blue hard. A **Worker Competency Checklist** will be completed and submitted to the Safety Division for the workers’ personnel file. Their picture will be taken with the Foreman congratulating them for graduating from the Short Service Employee Green Worker Program. An email is then sent out to the Foreman, Superintendents, Senior Management, and Human Resources.

If the SSE/Green Worker is not deemed competent, the Worker Competency Checklist will identify areas for improvement and they will be placed on an additional 30 days before another worker assessment will be conducted.

All workers must understand the reasons and importance of the SSE Green worker program.

Short Service Employees (SSEs), will have an experienced, knowledgeable and competent Mentor, and will not work alone unless the supervisor gives prior approval. All SSEs will have had a company orientation and a site orientation before they commence work. A crew should not be made up of more than 20% SSE workers.

All sub-contractors are to have the same program in place for their short service workers and must notify Pidherney’s supervisor prior to work commencing if a short service worker will be present.

Competency Checklist

Competency checklists are to be completed for each level within the company included but not limited to short service employees, laborers, truck drivers, operators, etc. An operator is required to have one competency checklist completed per piece of equipment that they operate prior to that operator working with little or no supervision. Competency checklists are completed as per the requirements under OH&S regulations prior to an employee working without direct supervision. Pidherney’s also completes competency checklists to ensure our employees are competent in their job positions. The completed competency checklist shall be handed into the office and filed in the employee’s personnel file.

9.8 JOB-SPECIFIC TRAINING

The following job-specific training is required as it applies to the employees’ job position.

Truck Drivers

- CVSA OOS criteria and Trip Inspection Requirements, Cargo Securement, Hours of Service, National Safety Code, Provincial/Federal Regulations, Carrier Profile
- H2S
- First Aid
- GODI or PDIC OR Equivalent

Oilfield Foreman

- Leadership for Safety Excellence
- First Aid
- H2S

- Global Ground Disturbance Level II
- Supervisor Alcohol and Drug Training

Oilfield Operator

- H2S
- Global Ground Disturbance Level II
- First Aid (as required)

Oilfield Laborer

- H2S
- Global Ground Disturbance

Civil Foreman

- Leadership for Safety Excellence
- First Aid
- H2S
- Confined Space
- Ground Disturbance Level II
- Supervisor Alcohol and Drug Training
- Load Securement

Civil Lead Hand

- First Aid
- Ground Disturbance Level II
- Confined Space (Underground Division)
- H2S

Civil Operator (Lead Hoe)

- First Aid
- Ground Disturbance Level II
- H2S (as required)

Civil Operator

- Ground Disturbance Level II or Awareness (Based on Division)

Civil Laborer

- Confined Space (as required)
- Ground Disturbance (as required)
- H2S (as required)

Civil Top Man

- Ground Disturbance Awareness
- Confined Space (as required)
- H2S (as required)
- Spotter
- Flagger Training (as required)

Civil Pipelayer

- H2S
- Confined Space Entry & Rescue
- Ground Disturbance Level II
- First Aid
- Load Securement

Hydro-Vac

- Ground Disturbance Level II
- First Aid
- Equipotential Bonding
- Fall Arrest
- H2S

Survey

- First Aid
- Ground Disturbance Level II
- H2S (as required)
- All-Terrain Vehicle Training

Maintenance Staff

- Driver Compliance Orientation
- H2S (as required)
- First Aid (as required)
- GODI or ODI or Equivalent

9.9 TRADES TRAINING

Where applicable, employees will receive skill and technical training through recognized apprenticeship programs. Journeyman instructing apprentices will enhance technical training. Journeyman will sign the amount of hours and task training the apprentice has received.

9.10 BEHAVIORAL BASED SAFETY PROGRAM

To improve the culture within Pidherney's by conducting, documenting and providing feedback on worker observations. Safety Opportunity/Worker observations are used to identify safe and unsafe behaviours and conditions on all Pidherney's employees while they perform their work activities.

By providing direct feedback and trending the measurable information provided by conducting these observations, Pidherney's will be able to support and encourage the safe behaviours while acting to correct the unsafe conditions and behaviours. All Pidherney's employees will be included in worker observations.

Responsibilities and Duties

Management:

- Train Supervisors and provide feedback on progress,
- Monitor and trend the information
- Intervene as appropriate for at risk trends
- Supply Safety Opportunity/Worker Observation Card

Supervisors:

- Train employees under their supervision in the process for being observed and conducting observations,
- Document observation on the Safety Opportunity/Worker Observation Card,
- Discuss results from observation with observed Worker.

Employees:

- Willingly participate in observations,
- Provide feedback.

Worker Observations

Anyone within Pidherney's that is conducting an observation must receive training on how to conduct an accurate and positive observation on another employee completing a job task.

When conducting an observation allow the individual to see that you are completing an observation on them. The focus of the observation should be on work practices and safe job procedure being followed, compliance with company and legislative rules and regulations, ensuring that the work conditions are not at risk.

If at any time during the observation, the worker or others around the worker are at risk for personal injury, you must intervene immediately to stop the unsafe behaviour or condition. Once the task has been completed, the observer is to then discuss with the observed the findings of the observation. This process will serve the purpose of understanding why the observed conducted the job task as they have.

It is imperative to keep this discussion in a positive direction and just understand the "whys". Remember to give positive remarks on what the observed done well and briefly touch on some areas for improvement, if any.

All information from the observation and any items discussed with the observed must be recorded on the Safety Opportunity /Worker Observation Cards. After this information has been recorded, the Observer is to submit the completed Safety Opportunity /Worker Observation Cards to the Supervisor, which in turn, will submit them to the Safety Department.

Safety Opportunity /Worker Observation Cards will be reviewed by the Safety Department and entered into the database where the information can be utilized to see if there is a trend in behaviours and conditions. If a trend is identified, it will be corrected accordingly as determined from the Safety Department.

Safety Opportunity /Worker Observation Cards are to be filed in the corresponding job file with the Safety Department Records.

FORMS – See Appendix B

- SSE Form
- Green Worker Form
- Worker Assessment Checklist
- Operator Competency Checklist
- Forklift Operator Competency Checklist
- Trailer Competency Checklist
- Worker Observation Form

SECTION 10: Subcontractor Management

SECTION 10: SUBCONTRACTOR MANAGEMENT

Pidherney's Subcontractor Management Program has been developed and implemented to ensure all our subcontractors have policies and procedures in place that are in compliance with Pidherney's.

10.1 RESPONSIBILITIES

Pidherney's Safety Personnel

- Complete Subcontractor Pre-Qualification Process prior to hiring subcontractor.
- Communicate Health, Safety & Environment requirements to the subcontractor prior to work commencement.
- Communicate Owner/Client Drug & Alcohol Policy, including pre-access testing requirements, prior to work commencement.
- Investigate and report any and all incidents and near misses.

Field Supervisors

- Ensure the work is conducted in a safe and responsible manner in compliance with OH&S Regulations and Pidherney's Safety & Environment Standards.
- Orientate subcontractors to the worksite.
- Investigate and report any and all incidents and near misses.

Subcontractors

- Complete Pidherney's Subcontractor Pre-Qualification Process prior to work commencement.
- Meet or exceed all applicable federal and provincial OH&S Regulations.
- Ensure all workers wear all required Personal Protective Equipment for the identified hazards.
- Ensure all workers have current safety training tickets available onsite for inspection.

A post-job performance review may be conducted on all subcontracted work to ensure compliance with Pidherney's and Owner/Client policies and procedures, meeting attendance, safe work practices and quality of work.

10.2 COMMUNICATION WITH SUBCONTRACTORS

It is the responsibility of Pidherney's to communicate hazards to all workers whether those workers are employees, subcontractors, or our clients. All subcontractors must ensure any hazards are communicated to Pidherney's. This is done by including all workers, including subcontractors, in the following:

Safety Orientations

All subcontractors will be required to complete all applicable safety orientations related to the owner/client site that Pidherney's has been hired to perform.

Pre-Job Meetings or Kick-Off Meetings

Should a subcontractor be hired before the job commencement, they may be required to attend a kick-off meeting with the owner/client Pidherney's is performing work. This meeting will define the scope of the project and act as a general quality control and safety overview for the job. If the job has been extended or the job scope has changed, this meeting may be repeated.

SECTION 10: Subcontractor Management

Pidherney's Inc. reserves the right to inspect all tools and equipment before work beginning to determine them safe to use.

Daily Tailgate Meetings and Hazard Assessments

The subcontractor is required to meet with Pidherney's on-site supervisor before the start of each workday, prior to new workers entering the site, or when hazards change. The supervisor will review the daily Tailgate Meeting and Hazard Assessment with the subcontractor.

Safety Inspections and Job Safety Analysis

Pidherney's supervisors will conduct a weekly site inspection that must be communicated to all subcontractors prior to work commencement. All subcontractors will be required to perform daily equipment and vehicle inspections prior to vehicle operation. Subcontractors may also be required to complete individual Job Safety Analysis cards prior to performing each task. These JSA cards will be submitted to Pidherney's supervisor at the end of each workday.

Incident Reporting

Should an incident or injury occur onsite, subcontractors are required to report the incident to Pidherney's onsite supervisor. The onsite supervisor will report the incident to Pidherney's Safety Personnel who will conduct an investigation. Pidherney's Safety Personnel will contact Owner/Client representatives and provide a copy of the incident investigation. Under no circumstances should a subcontractor report an incident directly to the Owner/Client.

Non-Compliance with OH&S Regulations or Client Standards

If during the course of the work, Pidherney's onsite supervisor notes situations of noncompliance with OH&S Regulations, Pidherney's Policies and Standards, or Client Policies and Standards, 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 subcontract and may lead to termination of the contract.

In the event that identified Health Safety & Environment deficiencies are not corrected or noted, or imminent danger is observed, Pidherney's onsite supervisor shall issue an immediate stop work order. Should this occur, Pidherney's supervisor will conduct a meeting with the subcontractor supervisor(s). The meeting minutes will be recorded and a copy provided to the subcontractor company. Continued non-compliance may result in termination of the contract.

10.3 PRE-QUALIFICATION PROCESS

All subcontractors looking to work under Pidherney's Trucking must complete Pidherney's Subcontractor Pre-Qualification Questionnaire and provide the following information:

Pre-Qualification Questionnaire sections

- General Corporate Information
- Quality Assurance (if applicable)
- Resources and Operations
- Health and Safety Program
 - Statistics
 - Safety Manual Contents
 - Pidherney's Subcontractor Drug & Alcohol Compliance Policy

Additional Required Documentation

SECTION 10: Subcontractor Management

- QA/QC Program (if applicable)
- Organizational Chart, Resumes for Key Personnel, Work History, and Equipment Listing with Rates
- Certificate of Insurance with Pidherney's Trucking listed as "Additional Insured."
 - General Liability must be equal to or greater than \$5,000,000.00
 - Please note that your "Umbrella" coverage is calculated in this amount
- WCB Clearance Letter and WCB Rate Statements for the past four years.
- COR or SECOR Certificate of Recognition
- Copy of your company's Health, Safety, and Environment Manual
 - If the subcontractor does not wish to share their entire manual, the following is the minimum required:
 - Table of Contents
 - Copy of Safety Policy
 - Copy of Drug and Alcohol Policy
 - Copy of all Policies, Procedures, and Practices related to the work you will be performing for Pidherney's Trucking.
 - Signed copy of Pidherney's Subcontractor Site Safety Plan

In the event that a subcontractor does not have their own Health, Safety & Environment program in place, their workers will be required to complete Pidherney's New Hire Orientation process prior to work commencement. The subcontractor will be required to follow Pidherney's Health, Safety and Environment Program and complete Pidherney's Meeting, Inspection, and Hazard Assessment forms.

10.4 DRUG AND ALCOHOL COMPLIANCE

We expect subcontractors to meet the standards for prevention and testing as established in Pidherney's Substance Abuse Policy. In particular, we expect every subcontractor to have established their own drug and alcohol policy. Pidherney's requires subcontractors to provide a copy of their drug and alcohol policy during the pre-qualification process and may request proof of enforcement.

In the event a subcontractor has not established its own drug and alcohol policy, they will be expected to comply with Pidherney's drug and alcohol policy and testing procedures.

Subcontractors are expected to enforce these requirements among their employees and subcontractors who perform work at any Pidherney's office, yard, or worksite. Failure to have an acceptable policy, refusal to follow Pidherney's policy or failure to enforce the policy may result in termination of the subcontractor and their services.

Fit for Duty

Subcontractors must ensure that their employees and subcontractors report and remain fit for duty. Fit for duty means being able to safely perform assigned duties and responsibilities without any limitations due to the consumption of alcohol or use of drugs – prescription or otherwise.

Subcontractor employees are expected to investigate through a doctor or pharmacist whether medication may interfere with their ability to work safely (e.g. drowsiness). They are also expected to take appropriate steps to minimize associated risks, including immediately notifying their direct supervisor and/or a Pidherney's representative of potential limitations.

SECTION 10: Subcontractor Management

If an individual is asked to perform duties or return to duty while under the influence of alcohol or drugs (including medications that could impact safe operations) it is the responsibility of that individual to inform the company that they cannot accept the assignment. In such a circumstance, every reasonable effort will be made to find suitable modified duty for said individual.

Subcontractors must ensure their employees and subcontractors do not:

- use, possess, distribute, or sell alcohol or drugs at any Pidherney's office, yard, or worksite
- possess prescribed medications without a legally obtained prescription
- use prescribed or over-the-counter medications in an irresponsible manner
- intentionally misuse medication that inhibit or may inhibit their ability to perform a job safely and productively

Testing and Investigation

In the event of pre-access, random, reasonable cause, or post-incident testing, the subcontractor must ensure their policy includes a requirement for the worker to sign a release indicating both the name of the donor and that the results ("Negative Test" or "Positive Test") will be released to Pidherney's and the site Owner/Client company representative, if applicable.

Where alcohol and drug testing is required, workers will not be permitted to return to a Pidherney's worksite until the results of the test are received by the Pidherney's Safety Division.

If there is any reason to believe a subcontractor employee is on duty in an unfit condition or otherwise in breach of the policy, the subcontractor is required to conduct an investigation. In addition, Pidherney's and the Client/Owner for the affected site may conduct their own investigations.

If the subcontractor's investigation shows that no violation of the policy occurred and this investigation is reviewed and approved by Pidherney's and the Owner/Client, the worker in question may return to work on Pidherney's worksites.

If the subcontractor's investigation shows that a violation of the policy did occur, the subcontractor is responsible for taking the necessary steps to prevent further risk to people, property, the environment, or Pidherney's business. Any worker proven to be in violation of the policy will not be permitted to return to duty on a Pidherney's worksite.

Any subcontractor who fails to comply with this policy will be under review by Pidherney's management. Subcontractors are to be aware that any violation of this policy is reasonable cause for termination of services.

Subcontractor Site Safety Plan

Methodology

Provide a healthy and safe working environment for all employees, managements, subcontractors, our clients, the public as well as protecting the environment.

Measures taken to ensure the health and safety of the workers on site to include the following:

The Subcontractor shall demonstrate and provide records upon request to demonstrate competency of its workers and meet all the training requirements as defined in the Project Specific HSE Plan. Pidherney's requirements is - one worker must be trained in Standard First Aid

SECTION 10: Subcontractor Management

All personnel (including Subcontractors) must review and sign Pidherney's site specific Hazard Assessment and to ensure they understand the hazards and controls that have been put in place to mitigate the identified hazards. Hazards specific to the daily scope of work will be reviewed and updated as required.

All visitors to site must review safety meeting and sign off at the designated work sites.

Site meetings will take place as follows:

All sub-contractors must conduct a daily tailgate meeting/FLHA, copies to be submitted to the on-site foreman on a weekly basis.

Communication between Pidherney's designated foreman and subcontractor foreman must be on a daily basis to ensure everyone is aware of the scope of work and any changes that may occur.

Basic PPE for all site personnel shall include approved steel toed boots (above the ankle), reflective safety vest/coveralls (*harness style safety stripes and black/gold safety vests are not permitted on site*), hard hat (safety glasses and hearing protection where required).

Shall notify Pidherney's immediately of all workplace incidents related to the Subcontractor work. The Subcontractor shall be primarily responsible for investigating and handling claims based on losses for which it is responsible and shall fully cooperate with Pidherney's in investigating and handling such claims, including disclosure of internal reports and records in connection with the incident investigation and any investigation reports.

Shall be responsible for any and all equipment brought unto the work site or used by the Subcontractor in connection with any work. Such equipment shall first be inspected and certified by the Subcontractor to be safe and in good and proper working order. Any equipment that requires logs, daily inspection checklist shall have documentation available for inspection by Pidherney's, all such equipment shall meet all Environment, Health and Safety requirements, Codes, Regulations and other Laws and shall have proper and operable safety devices, noise and pollution controls and precautions installed as required. Be clean and in proper working order upon arrival at the work site. All equipment certification must be submitted to Pidherney's prior to entering worksite. Any equipment that is found without certification will be removed from the work site at the subcontractors cost. A re-evaluation of all equipment will take place.

All lifting equipment (slings, spreader bars, hooks, etc.) requires annual inspection certification. - To be up to date and to accompany their respective equipment.

Fire extinguishers coming to site require annual inspection and monthly inspection up to date.

Subcontractors must park in designated parking areas.

Periodic inspection will be conducted by Pidherney's HSE advisor.

10.5 COMPLIANCE

Workers

It is the responsibility of each worker to always work in a healthy, safe and environmentally conscious manner. They need to do this to ensure their own health and safety, the health and safety of others and the environment.

Supervisors

It is the responsibility of supervisors to oversee safe work practices and ensure proper job procedures are always being performed at our worksite. They must enforce all policies and procedures at all times and report to management any failure to do so.



Management

It is the responsibility of management to keep all proper documentation of safety in order at the office. As well as regularly review and evaluate the program performance to identify strengths and opportunities for improvement, taking into account changing laws and regulations, technology and industry standards. Safety must be implemented at the top and have the support of the management in order to be successful.

SECTION 11: Incidents & Investigations

SECTION 11: INCIDENTS AND INVESTIGATIONS

Pidherney's has solid processes in place to ensure appropriate communication and follow-up is adhered to when an incident, accident or near miss occurs. Proper reporting and investigative processes act as tools that provide direction for implementation of corrective or preventative actions.

Incident: Any unplanned event that results in injury, illness, equipment or property damage, loss of materials, or environmental damage.

11.1 ROLES AND RESPONSIBILITIES

All incidents accidents and injuries, regardless of how slight, must be immediately reported to the appropriate personnel to allow for adequate follow up of these events.

Employees shall:

- Promptly report all incidents, accidents and injuries to their direct supervisor
- Cooperate in the incident investigation process including but not limited to, witness statements, post incident testing, completing contractor related incident reports as required, and/or seek medical attention in cases of personal injury.

Supervisors shall:

- Ensure no further damage to property or personnel.
- Verbally communicate the incident or accident to management and HSE personnel immediately.
- In the event of a Motor Vehicle Accident, RCMP must be contacted if:
 - Any injuries are sustained
 - Involves an impaired driver
 - The vehicle requires towing
 - Damage to the vehicle or vehicles totals more than \$2000.00 damage (damage sticker must be attained)
 - Vehicle vs. Animal where the animal is injured but not killed. (If animal is killed, contact Fish and Wildlife for removal)
- Send email notification within 1 hour of the incident occurring to incident@pidherneys.com with the following information:
 - Type of incident
 - Location of the incident
 - Who is involved?
 - Any injuries/damage?
 - Current status of the incident
- Complete the incident investigation report, including specific details of the incident, personnel involved, contributing factors and suggested corrective actions. Pictures of the incident, damage, or condition should accompany the report. Incident reports are to be submitted to the designated HSE representative the same day or at the latest by noon the following day.
- Accompany or designate a competent worker to accompany any individual with personal injury to a medical facility when required.
- Ensure WCB documentation is completed as required by the worker in the event of personal injury, utilizing the forms outlined by Pidherney's disability management provider. Forms are

SECTION 11: Incidents & Investigations

to be forwarded to designated HSE representative the same day or at the latest by noon the following day.

- Implement corrective and preventative actions as outlined by management.

Where incidents are severe in nature, incident investigations will be conducted by Pidherney's management.

Senior Management shall:

- Support the incident investigation and reporting process.
- Review incident investigation reports and ensure that Pidherney's incident investigation process is followed.
- Support corrective actions identified in Incident Investigations.

HSE Department shall:

- Maintain the incident reporting and investigation policy.
- Provide support to the application of the incident investigation process.
- Participate in the investigation process when required.
- Monitor investigation of incidents to ensure that root causes are identified and corrective measures are implemented to prevent recurrence.
- Facilitate communication of critical or significant incidents or preventable action within the company.

11.2 INCIDENT RESPONSE

- Care for the ill or injured
- Ensure appropriate first aid treatment is provided to the injured by a certified first aid attendant.
- Follow the Emergency Response Plan for that worksite.
- Notify the appropriate individuals, as required.

11.3 INCIDENT RESPONSE – SERIOUS INCIDENT

Definition:

Serious Incident

- **People** – Any serious injury (requiring immediate attention)
- **Property Damage (Loss)** – Any property damage or loss over \$10,000
- **Public Image & Perception** – Government Intervention
- Any **Near Miss** that fits the "Serious Incident" criteria

Incident Response

- Care for the ill or injured.
- Ensure appropriate treatment is provided to the injured. A Supervisor or designate, or Pidherney's Designated Safety Personnel will accompany any injured worker who is transported from the worksite to medical attention.
- Follow the Emergency Response Plan for the worksite.
- Notify the appropriate individuals, as required.
- Do not resume work until authorized by Pidherney's Designate Safety Personnel.

SECTION 11: Incidents & Investigations

11.4 INVESTIGATION PROCESS

Assess the Situation – This will determine the extent of the incident and what needs to take place, and who may conduct the investigation.

Gather physical evidence - Photographs, and/or a diagram of the area. All information is vital so please remember to include all areas involved and anything you may feel may be relevant. Review safety documentation to ensure all hazards and any relevant information was documented and discussed.

Interview all that was involved including witnesses - Full description including witness statements, focus on asking the W's. What happened, Who was involved, Why did this happen, Where did this occur, When did this occur, etc. Any and all contributing factors, both immediate and underlying causes must be incorporated, including any factors that may be relevant leading up to the time of the incident.

Check background information – This may include any hazard assessment, maintenance logs, log books, near misses, training records, past incident reports. All this information may help you in determining why this occurred.

Recommended Corrections - You should incorporate all the information that you have gathered for determining appropriate corrective actions. This may include engineering controls be put in place or corrected, correcting administrative controls, or implementing new ones and lastly implementing or correcting the personal protective equipment.

Determine Costs – It is important to determine the total cost of an incident. This cost reflects the financial burden put on the company and helps aid management in determining which corrective recommendations will be implemented and in which order.

11.5 REPORTING REQUIREMENTS

Upon an incident occurring, the incident must be immediately reported to your immediate supervisor and your designated safety personnel.

Immediate notification constitutes verbal notification, leaving a message on voicemail does not constitute verbal notification.

In addition to verbal notification, an email shall be sent within **1 hour** of the incident occurring (unless immediate care of an injured person is still required) to incident@pidherneys.com with a description of the following;

- Type of incident
- Location of the incident
- Who is involved?
- Any injuries/damage?
- Current status of the incident

An incident report **must be submitted** to the safety department, at the latest, must be delivered by noon the following day.

SECTION 11: Incidents & Investigations

If the incident involves a personal injury of any degree and the worker is required to seek medical attention, the foreman is required to have the injured party complete the WCB & Matrix forms found in the Matrix Consulting packages. The worker should always be accompanied by the foreman or his designate when reasonably practicable.

The following forms must be filled out at time of incident;

- Workers Report – to be filled out by the worker.
- Worker to sign the Medical Release form
- Worker to sign the Modified Work Program form
- Worker to take Medical Assessment into the doctor to have it completed. The doctor will fill it out stating what their restrictions are (if required). Sometimes the doctor will not fill it out but will give a sheet of paper that states if the patient will be able to do modified work (**We always want them to do modified**).
- If the worker is on modified, the foreman is to contact the safety department to discuss appropriate modified duties based on their restrictions.

These forms and all other WCB related paperwork and information must be submitted to the safety department the same day, or if not possible the following day by noon at the latest.

Reminders:

- If involved in a motor vehicle accident, a police report must be made to the local police station and that report delivered to the safety department.
- The vehicle accident report is to be filled out with the individual's involved in the accident. (Note: this is to be done prior to anyone leaving the scene of the accident).
- Remember to request a new vehicle accident report to replace the one you used.

11.6 IMMINENT DANGER INVESTIGATIONS

- All employees of Pidherney's have a responsibility to refuse work that they consider being imminently dangerous.
- When an employee notifies their immediate supervisor that they are refusing work that they consider to be imminently dangerous, work will be stopped and the employee and supervisor must discuss the refusal, conduct a hazard assessment and determine the nature of the refusal.
- If the refusal is a result of skill or a personal reason, and another employee can safely complete the work, the refusal must be documented, reported and work can continue.
- If the work can be safely completed, and an employee continues to refuse due to what they feel is imminent danger, Pidherney's designated safety personnel must be notified to lead an investigation into the refusal of work.
- Under no circumstances will any retaliatory action be used against any employee who refuses to perform a task that he feels will put themselves or others at risk.

11.7 VEHICLE INCIDENT INVESTIGATIONS

In addition to the incident reporting and investigation requirements for all incidents, specific responsibilities exist for vehicle and equipment damage incidents.

SECTION 11: Incidents & Investigations

Responsibilities – Vehicle Incident Investigations

Management

- Complete a background check of the driver involved in any Vehicle/Equipment Serious Incident including:
- Current driver record and abstract
- Drivers work record
- Hours of service review
- Work schedule
- Driver's activities for the previous 72 hours

This information is to be documented and submitted along with the incident investigation report.

Supervisors

Participate in the recovery and the follow-up to ensure that complete and thorough investigation has been performed and that additional equipment damage is not incurred the recovery process.

Drivers

Notify and supply information to the local police immediately if a vehicle collision results in the following;

- If anyone is injured.
- If any driver does not have documentation such as a driver's license, registration or insurance.
- If one or more of the vehicles isn't drivable.
- If the total damage to all the vehicles and property appears to be more than **\$2,000 (as of January 1, 2011)**, you must go to a police station and file a Collision Report Form. Failure to do so could result in demerit points or a fine. Note the file number the police have assigned to your report.
- If the driver is incapable of making the report, a passenger should file the report, or the owner of the vehicle upon learning about the collision.
- Auto body shops are prohibited from making collision-related repairs of more than **\$2,000 (as of January 1, 2011)** to any vehicle that does not have a damage sticker. The sticker indicates that the collision has been reported to the police.
- Auto wreckers are prohibited from destroying a vehicle damaged in a collision without a police-issued damage sticker. These businesses are required to contact the police before doing any work on the vehicle if there is no sticker.

EXCHANGE CONTACT AND INSURANCE INFORMATION

Contact and insurance information should be exchanged with all other parties involved. Collect information about the collision and if possible, take pictures.

The **Vehicle Accident Report Booklet** is to be filled out and will help you to remember the types of information you'll need to record at the scene. It is kept with the vehicles insurance papers in your glove compartment.

If the driver of a vehicle is incapable of providing the information required, and there is a passenger capable, the passenger should provide that information.

SECTION 11: Incidents & Investigations

If someone refuses to provide their information, document the license plate number, vehicle description and driver description before they leave the scene.

After you have exchanged information with all parties involved:

- If your vehicle is not drivable - you must make arrangements for it to be removed from the road otherwise, a police officer may make those arrangements, and your vehicle will be deemed abandoned.
- If your vehicle is drivable - you can leave the collision scene.

If the collision involved an unattended vehicle or other property, you must notify the owner of any damage you may have caused. If you are unable to locate the owner, you must securely attach your name, address, phone number, driver's license number and license plate number to the damaged vehicle.

If you damage or knock down any traffic safety device, railroad sign or signal, a traffic signal of any kind, a parking meter or any public property you must report the damage to the police immediately, even if the damages are less than **\$2,000 (as of January 1, 2011)**.

11.8 NEAR MISS REPORTING

M. Pidherney's Trucking encourages reporting of unsafe working conditions, unsafe employee work habits, improper use of equipment or use of malfunctioning equipment that have the potential to cause work related injuries. Information provided on a Near Miss Report can facilitate the development of corrective actions and prevent similar situations from occurring in the future.

Near Miss: An event that could have, under slightly different circumstances, caused injury, illness, death, equipment or property damage, loss of materials, or environmental damage.

Workers are encouraged to contact their direct Supervisor when near misses occur. Workers, along with their supervisors are to document these events with any recommendations or implementation of corrective action. Near miss reports will be forwarded to the Safety department for review and if required, further corrective or preventative action will be implemented.

When should I complete a Near Miss Report?

The following are examples of when to complete a near miss report form:

- 1) Observation or knowledge of an event that may have injured a person if someone had been present at the location while the unsafe action/event was occurring (i.e. Lump falling from spoil pile into ditch that could potentially harm a worker, steps not cleaned on excavator preventing worker from safely mounting and dismounting equipment).
- 2) Equipment failure that could have resulted in a serious injury if a person had been using the equipment or if someone had been in the immediate vicinity when the equipment failed.
- 3) Observation of a weakness in a process or procedure that could lead to an unsafe action/condition (e.g. potential for worker's hair or loose clothing to become entangled on moving machine part while operating).

Contact your acting Supervisor and fill out a Safety Opportunity Card outlining the near miss and corrective action taken to prevent future unsafe acts. The near miss report will be forwarded to the Safety Division for review.

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11.9 INSTRUCTIONS FOR COMPLETING 'INCIDENT REPORT' FORM

Job # /LSD/ Unit # *(Top right-hand corner of document)*

The number that has been assigned to the job OR the LSD of where the job is located is to be written here. If any Pidherney's equipment or vehicle has been involved in the incident, the unit # is to be filled in here. If there has been no equipment or Vehicle involved, mark this area N/A.

Date & Time of Incident

The date and time which the incident occurred.

Company/Client

Identify the Company or Client that Pidherney's is working for.

Project Manager

Identify Pidherney's Project Manager for the specific worksite.

Date Of HSE Notified

Document the date/time a member of the HSE dept. was verbally notified of the incident.

Incident Classification

Check" the box that categorizes which type of incident you are reporting.

Incident Severity

"Check" the box that categorizes the severity of the incident

Injury Classification

"Check" the box that categorizes the type of injury.

Conditions

Write in the temperature at the time of incident. "Check" box that best describes site and weather conditions at time of the incident. Any additional information regarding site or weather conditions should be documented in the space provided.

Personnel Classification

Check the box describing the classification of the personnel involved.

Personnel Involved

Person(s) Involved

Who is the primary person involved? Write down their name (first, last), position (laborer, operator, etc.), length of employment (how long they have work for Pidherney's), and length of current position (example: started as a laborer but now is an operator. How long has he/she been operating that specific piece of equipment), hours on shift, consecutive days worked?

Post Incident Testing completed

Place a check mark in 'yes' or 'no'. If the answer is 'no', what is the reason that the employee is not required to be drug tested?

Was this person performing their regular duties at the time of incident?

"Check" 'yes' or 'no'. If no is checked, an explanation is required in the space provided.

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Example: "Worker was operating a grader, but is specifically a hoe operator"

Hire or Re-Hire Date

Enter date of hire or re-hire.

Were There Witnesses to the Incident

If there was a witness to the incident, witness statements must accompany the incident report. Use Pidherney's Employee Questionnaire/Statement form which will walk the witness through the chronological order of events of the incident.

Note: If you did not witness the incident yourself, always take statements from witnesses as part of your investigation.

Spills or Leaks

If there has been a spill or leak, the product type (ex. Diesel fuel), quantity released (ex. 60 litres), and quantity contained (ex. Socks and pads used) must be filled out in the area provided.

External Agencies Notified

If you check mark "yes" to regulatory bodies notified, document who was notified. I.e.: OHS, 1st Call, AER, NEB, Fish and Wildlife, etc.

Emergency Assistance Obtained

Place a check mark in the box/boxes of the emergency assistance that was obtained for the incident.

Unsafe Acts/Unsafe Conditions

Identifying unsafe acts and conditions helps identify what, how and why something happened, thus preventing recurrence. Understanding why an event occurred is the key to developing effective recommendations.

Take a step back and ask yourself, "Why did they exist and why were they allowed to exist?" Have the conditions existed for a long time? Has everyone adapted to these unsafe conditions? Do conditions like this arise on a regular basis? Are these conditions allowed to remain or are there ways they can be eliminated? Are all workers aware of their obligation to report unsafe conditions?

Description of Incident

This section is broken down into three sections to ensure adequate description and detail of the incident is provided. Ensure specifics detail and description of the incident is documented in a way that even someone outside the industry would have a clear understanding of what took place. *(Avoid using slang terms).*

Utilize the Five W's approach when investigating, gathering and documenting facts relating to the incident:

Who was directly or indirectly involved?

What took place?

Where on the job site did it occur?

When did it happen? When was it reported?

Why did this happen? Was it preventable? What could have been done to prevent it?

SECTION 11: Incidents & Investigations

Incident Details and Immediate Response to Incident

Describe the events of the incident itself. Some common terminology used to describe what happened may include: struck by, struck against, slipped on or tripped on, fell from and how far, caught in/on/between, came in contact with, where you would include the part of the body/equipment and what was contacted. Describe what happened immediately after the incident. The reaction of the worker such as; get out of equipment, call for help, complain about back pain. Also record whether nearby employees and witnesses responded to the scene such as: calling for additional help, notification, coming to the aide of the worker, administering first aid, etc.

Events following incident

Who did you notify (i.e. HSE, Supervisor, utility owner, client, etc.) How the scene was managed? Was there disciplinary action to the worker and a description of follow-up, clean-up, containment, repair, medical attention, etc.?

Management System Deficiencies

Identify what management systems failed in regards to the incident. Check all that apply.

As an example: Inadequate Leadership and/or Supervision; Inadequate Communication

The worker was not given clear instructions on how the load should be secured at this site.

Attachments

“Check” boxes of all attachments that accompany the incident report. Any failure to provide submission of attachments will be deemed incomplete. i.e.: Daily meeting, site hazard assessment, etc.

OH&S Violations/Recommendations

What OHS Act/Codes were violated in regards to this incident? What recommendations do you have to prevent this type of incident from occurring again?

Corrective Action

Provide recommendations for changes you believe will prevent this type of accident from happening again. *Note: Filling out an incident report or sending equipment/vehicle for repairs are NOT corrective actions.*

Each unsafe act/conditions and management system deficiencies, including any additional causes, that has been identified must have corrective actions put in place to prevent or reduce the likelihood of a reoccurrence of similar incidents.

Individual Reporting Incident

Insert the name of the person who is reporting the incident report and the date and time the report has been completed.

Insert the name of Pidherney’s Supervisor for whom has reported the incident and the designated HSE representative.

If the incident report has been hand-written, a signature is required, however, if the incident report is emailed, verification of email address that has sent the incident report will be sufficient.

FORMS - See Appendix B

- Incident Report
- Refusal of Unsafe Work
- Near Miss Report

SECTION 12: EMERGENCY PREPAREDNESS AND RESPONSE

Each Pidherney's location shall have a written Emergency Response Plan, appropriate to the hazards of the workplace, in order to respond to an emergency that may require rescue or evacuation. Each Emergency Response Plan shall demonstrate preparation to reflect all known probable emergency conditions which may arise from within the workplace and from adjacent workplaces. Emergency Procedures shall be issued and discussed with all personnel upon arrival to the job site.

Emergency Response Plans shall be established, implemented and reviewed. The plan is to be reviewed before the job, when conditions warrant and should be used for routine and non-routine emergencies as well as changes in operation, products or services which warrant new emergency situations.

Pidherney's employees are required know of the whereabouts of fire extinguishers, first aid kits, eye wash stations, spill kits and emergency personal protective equipment on their work site, both company specific and on contractor's sites. Supervisors are responsible for completing or obtaining a copy of the Emergency Response Plan for their job site. This must made available to those on the work site.

12.1 EMERGENCY RESPONSE PLAN

Emergency response plans specify procedures for handling sudden unexpected situations. The primary purpose of an emergency response plan is to ensure prompt adequate response to unexpected situations or disaster.

Additional purposes for an emergency response plan in alliance with an efficient field response team include:

- Ensuring immediate competent responses
- Minimizing the danger to the public and company workers
- Effecting a rescue and treatment of casualties, safeguard the public, minimize damage to property and the environment, contain and bring the incident under control, provide authoritative information to the media, secure safe rehabilitation of the affected areas, preserve relevant records and equipment for any subsequent investigation into the cause and circumstances of the emergency.

Through planning and preparedness, the extent of loss and damage can be controlled. This planning requires assigning appropriate authority, provision of materials and equipment, as well as comprehensive plans specific to the type of emergency. Once a plan has been prepared, it should be tested, reviewed and critiqued to note short comings. Pidherney's will conduct an emergency drill at minimum once per year.

Supervisory personnel will gather information including the locations and phone numbers of nearest hospitals, ambulance, police, utilities and other helpful information or assistant sources for their job site. This information may help prevent confusion in the event of an emergency. It may also help to minimize travel time for emergency responders or assist in getting casualties to medical attention as soon as possible.

12.2 EMERGENCY RESPONSE PROCEDURES

The supervisor will designate a muster point in case of an emergency.

Some emergencies require evacuation or escape and rescue procedures, while some require employees to stay indoors, or in a safe area. Our emergency escape and rescue procedures are designed to respond to many potential emergencies, depending on the degree of seriousness. Nothing in these procedures precludes the plan administrator's authority in determining whether employees should remain inside or evacuate.

In the event of any emergency, there are steps taken to minimize damage or injury and bring the situation under control. Take a look over the entire scene and find out how many are injured as this will determine how many ambulances are needed.

Find out what kind of help is needed:

- Are victims trapped?
- Have the police been notified?
- Is there a power line down?

ALL information must be accurate. Know the location and operational procedures for all safety and emergency equipment on the work site.

PROTECT YOURSELF

Assess the area for hazards and take the necessary precautions. Make sure the scene is safe before approaching the victims.

TAKE COMMAND

Designate a person to report the occurrence to supervisory personnel.

PROVIDE PROTECTION

Protect the incident scene from further hazards such as traffic, operating machinery, fires and live wires, etc.

FIRST AID

When you are approaching the victim, try to remain calm. Take a few deep breaths and introduce yourself as a first aider, let them know that you are trying to help. Talk to the victim and try to keep them calm. Explain everything that you are doing to them until medical help takes over. You cannot force your help on a victim. Most importantly, do not move a victim unless there is immediate danger.

First aid is to be performed within 4 minutes if possible by a designated first aider or Medic: Including defibrillation if necessary.

CALL FOR EMERGENCY ASSISTANCE

Call an ambulance and any other emergency services required. In some locations dialing 911 does not ensure contact with emergency services. Please ensure that if STARS is required that you have the site registered and have the number on the safety meeting form. Make sure to provide the following information: Complete address and/or location, nature of the problem, number of injured people, telephone number you can be reached at and your name. Keep the line open as they may want to ask more questions.

The injured worker is to be stabilized immediately and assessed by a Medical Emergency Professional within one hour.

Ensure that the injured worker is transferred to the nearest hospital within a minimum of 4 hours.

The hospital through triage will determine if the injured worker requires casualty specific treatment.

ISOLATE THE INCIDENT SCENE

Barricade rope off or post a guard at the scene to make sure that nothing is moved or changed until authorities have completed their investigation.

ADVISE MANAGEMENT

Inform management and if required they may notify next of kin, government authorities and start procedures for reporting and investigating the incident.

NOTE: Notification of next of kin in the event of a fatality may not be performed until the family member has been pronounced dead by a doctor. **Only the RCMP can notify the next of kin.**

GUIDE EMERGENCY RESPONDERS

Meet and direct the response crew to the incident site.

GET THE NAME OF THE HOSPITAL

Find out which hospital the injured are being transported to.

12.3 RESPONSIBILITIES

Employees

All employees must understand what their role will be during the event of an emergency.

Employees must participate in drills and exercises and familiarize themselves with the emergency response plans and any updates which may be issued. They must also protect themselves, others and the facilities in a manner consistent with the emergency procedures, safe work practices and their specific expertise. All emergencies occurring in a work area must be reported immediately to a Supervisor.

If evacuation is necessary, employees will immediately evacuate to the muster area or a safe area designated in the hazard assessment.

Supervisors

All supervisors must understand what their role will be during the event of an emergency.

Supervisors will ensure that site-specific emergency evacuation procedure is in place in the case that it is necessary. They must communicate this plan prior to work commencing with their workers and identify the designated first aider(s) on site. Supervisors must first ensure their own safety, and then if needed, respond to ensure the safety of their workers. It is the responsibility of the Supervisor and designate to carry a cellular phone to allow for readily available communication should an emergency arise (See 11.8 Emergency Numbers). All emergencies must then be reported to senior management and the correct incident documentation filled out and handed in so that an investigation can take place efficiently and accurately.

If evacuation is necessary, the supervisor is responsible for ensuring all workers are accounted for.

Management

Management is required to ensure employees have received adequate training in emergency response. Management will conduct at minimum one emergency drill per year to ensure employee understanding and to check for deficiencies in the emergency response plan.

Management will provide all necessary numbers that would be needed in the event that an emergency should take place.

12.4 PERSONAL INJURY

Pidherney's ensures that every workplace is provided with such equipment, supplies, facilities, first aid attendants and services as are adequate and appropriate for promptly rendering first aid to workers if they suffer an injury at work.

Emergency Equipment

Pidherney's offices, shops and work sites will be equipped with first aid kits, eye wash stations, fire extinguishers, fire blankets and other necessary equipment, clearly mark and available to workers.

This equipment shall be maintained in a clean, dry and serviceable condition at all times. Each kit, eye wash station and fire extinguisher shall be visually inspected monthly. First aid kits shall contain approved contents in accordance with applicable legislation.

Illness or Medical Emergencies

1. Call for assistance by phone or radio. Give the exact location and details of the medical emergency.
2. If qualified, provide basic first aid, and keep the person comfortable. Do not move the person. Do not leave him/her unattended.
3. Arrange for emergency medical transportation based on the medical planning portion of the site's Emergency Response Plan.

Serious Injury or Suspected Fatality

Important steps must be followed in the event of a serious injury or fatality. The prime responsibility to ensure that these steps are taken resides with the Supervisor or Manager. It is therefore, mandatory that prompt notification be given to the appropriate positions.

1. Protect yourself and rescue the causality if applicable
2. Notify First Aider and/or Doctor immediately
3. Supervisor/Manager notified as soon as possible. They will be responsible to alert senior company representatives.

Senior Management will notify: Police, Occupational Health & Safety, Workers Compensation Board, etc. as required.

12.5 EVENT SPECIFIC EMERGENCY PROCEDURES

Fire

In the event of a fire, the on-site supervisor will determine whether the fire can be contained with the immediate resources without risk to other personnel or if external help is necessary. If a personnel attempt is made to contain the fire with immediate resources, this should be documented with an incident report for investigation purposes. Include the names of the personnel using fire extinguishing equipment, what equipment was used and the results of the attempts. If the fire poses immediate danger to personnel, the fire authorities should be contacted immediately.

The site should be evacuated and only reentered once the hazards have been controlled or contained. The emergency hazard area should be searched for victims and casualties given appropriate first aid. EMS should be contacted immediately.

Extinguishing a Fire

When extinguishing a fire, remember the **PASS** system:

Pull the Pin.

Aim Low. Point at the base of the fire.

Squeeze the Handle.

Sweep from side to side, keeping the extinguisher aimed at the base of the fire.

Types of Fires

Class A: Wood, paper, rags, rubbish and other ordinary combustible materials.

Recommended Extinguishers:

- Water from a hose,
- pump type water can
- pressurized extinguisher
- soda acid extinguishers.

Fighting the Fire:

- Soak the fire completely-even the smoking embers.

Class B: Flammable liquids, oil and grease

Recommended Extinguisher:

- ABC units
- dry chemical foam
- carbon dioxide extinguishers.

Fighting the Fire:

- Start at the base of the fires and use a swinging motion from left to right, always keeping the fire in front of you.

Class C: Electrical equipment

Recommended Extinguishers:

- Carbon dioxide
- dry chemical extinguishers.

Fighting the Fire:

- Use slow bursts on the fire. When the electrical current is shut off on a Class C fire, it can become a Class A fire if the materials around the electrical fire are ignited.

Forest Fires

In the event of a forest fire, evacuate as soon as possible upwind of the fire. Call emergency services and identify your location and the location of the fire. If evacuation is not possible, let someone know your location if communication is available and attempt to locate a source of water. Soak all clothing and your hair and stay as far down in the water as possible using a wet piece of clothing to cover your face and head until the fire has passed.

These points are only guidelines; conditions at the scene may dictate alternate steps. Ensure your safety and the safety of others.

Explosion

If an explosion is about to or has taken place, the area should be evacuated immediately, and the fire department notified. Once the explosion has been controlled, rescue operations should begin immediately. Any fires should be extinguished, and victims removed from the immediate area. Casualties should be given the appropriate first aid and EMS contacted.

Electrical Shock

In the event of electrical shock, all power sources should be shut off immediately.

DO NOT ATTEMPT TO REMOVE THE VICTIM FROM THE CURRENT UNTIL POWER SOURCE IS SHUT OFF!

Once the victim has been removed from the source of electricity, appropriate first aid should be given, and EMS contacted. Do not leave the casualty alone but continue necessary first aid treatment until paramedics arrive.

In many electrical accidents, the injuries are not from electrical shock but from the effects of the burns. These should be treated in accordance with the instructions in First Aid. Victim should be taken to a doctor or emergency facility.

Vehicle Incidents

- Do not discuss the incident with anyone at the scene except the company personnel. Do not admit or suggest fault to any one in any way.
- Complete the incident report by exchanging names, insurance agents, addresses and phone numbers of the other party, second or third if this applies.
- Get names, phone numbers and addresses of witnesses and ask them if they would mind providing a written statement of what they saw.
- Ensure the steps/procedures of the ERP are implemented as they apply to the type of incident.

H₂S Leak

Hydrogen Sulfide Gas

Hydrogen sulfide is a toxic gas found in several industries other than the more common oil and gas industry and is also a natural by-product of organic decay where oxygen is not present.

Some of these locations may include:

- Well heads or bores
- Piping systems
- Pumps
- Manifolds
- Tanks
- Pipelines, production vessels, and tanks
- Production facilities
- Confined or enclosed spaces
- Ditches, berms, dikes
- Spills

H₂S leaks occur in the following:

- Vent lines
- Relief valves
- Sample points
- Drains
- Flanges
- Seals
- Packing
- Fittings

The Alberta Energy Utilities Board requires a poisonous gas sign to be posted at all locations containing H₂S concentrations of 10 ppm or more. It is extremely important not to confuse the parts per million scale with the percentage scale. 1% H₂S is equal to 10, 000 ppm of H₂S. Anyone working around H₂S must and will receive H₂S training.

Man Down

In response to an H₂S knockdown, follow these 7 steps:

- 1) **Evacuate** - Get to a safe area immediately (NEVER DOWNWIND!)
- 2) **Alarm** - Call or radio for help and sound the "man down" alarm.
- 3) **Assess** - Stop and assess the situation. Do a head count and consider other hazards.
- 4) **Protect** – Protect yourself first by donning personal protective equipment. ALWAYS don breathing apparatus. You may also require special chemical protection, detection equipment or a harness or fall arresting device.
- 5) **Rescue** - If a rescue is required, ensure your own safety first. Acquire the necessary rescue equipment and remove the victim to a "SAFE AREA".
- 6) **Revive** - Upon reaching the "SAFE AREA", start the ABC's of first aid.
- 7) **Medical Aid** - Ensure that EMS is on their way and provide all possible information upon their arrival.

You must then proceed with the incident reporting process.

Rescue Techniques (Wearing a Breathing Apparatus)

The Collar Drag

- place the victim on their back
- PARTIALLY UNZIP THE VICTIMS COVERALLS, roll up the collar of the victim's coveralls so you can achieve a secure grip
- support the victim's head with your forearms
- pull the victim to safety, head first

The Two Arm Drag

- place the victim on their back
- lift the victim up by the back supporting the head and neck
- use your thigh or knee to support the victim's back
- put your arms under the victim's armpits
- get a firm hold on the victim's wrists
- drag the victim to SAFETY

The Two Person Carry

- place the victim on their back
- one of the rescuers goes to the head of the victim and supports the head and neck, grips the wrists and pulls the victim to an upright position
- the other rescuer goes to the feet, crosses the victim's legs and grips the bottom of the pant leg or coveralls
- the rescuers work together to lift the victim evenly
- by holding both legs of the victim to one side, the victim is protected from hitting the SCBA tank of the rescuer

Artificial Respiration

Removing the victim from the area where the H₂S knocked them down may not be enough to save their life. If the victim is not breathing, you may have to use artificial respiration to save them.

Facility Contact

Examples of potential contact related emergencies in the industry include:

- Contact with buried cable/pipe.
- Contact with a power pole/guy wire. Contact or arc of an overhead power line.

Activation of the Plan

- Immediately inform Supervisor. Call out "line strike" to alert other personnel in the immediate area.
- A worker must stay (if safe to do so) and calmly give directions to incoming Safety Supervision and Support Personnel. Additional support will be summoned by the Supervisor.

Responding to Event

Immediately contact the utility service provider.

Gas Line Strike

- Do not attempt to make temporary repairs to a damaged gas line. Do not operate any gas valves unless instructed to do so by the utility owner. Never backfill over ruptured or damaged pipes.
- If the line break or leak is underground, warn people in nearby buildings. If the possibility exists that the gas is migrating into neighboring buildings via sewer lines and drains, evacuate all occupants immediately.
- Remove all sources of possible ignition such as cigarettes, flares, welding, torches, cell phones, power tools, and equipment.
- Turn off all mechanical equipment and vehicles.
- Stop all work, clear the area, all persons on site to proceed to the muster point location.

Underground Electrical Utility

- Move the excavator bucket clear of the cable to break contact and remove all personnel from ditch.
- If the machine cannot be moved, keep workers 10 metres away and have operator remain in the equipment.
- If there is an uncontrollable fire, jump off equipment keeping your feet together. Never contact the equipment and the ground at the same time.
- Once clear of machine, shuffle away, never allowing the heel of one foot to move beyond the toe of the other or hop with both feet together to a minimum distance of 10m.

Underground communications - cable or fiber optics

- Move equipment, exit the trench, and await a response from the facility owner representative.

Overhead power, pole, guy wire

- Do not attempt to get off equipment. remain in equipment until directed to exit by power utility.
- Workers on ground must stay back of any equipment which has made contact with an energized utility. Stay back 10m to avoid electrically charged ground - DO NOT become a victim while attempting to help.
- If there is an uncontrollable fire, jump off equipment keeping your feet together. Never contact the equipment and the ground at the same time.
- Once clear of machine, shuffle away, never allowing the heel of one foot to move beyond the toe of the other or hop with both feet together to a minimum distance of 10m.

Providing Assistance

- Workers not tasked are to remain at the muster point and await further direction from Supervisor or Designated Safety.
- Prepare to assist with response if required.

Tornados

With the changing weather conditions in our country we must expect uncertain conditions such as tornadoes.

Tornado Warnings

- Listen to radio stations for updated weather conditions if possible.
- Know that a tornado WATCH means a possible tornado in your area.

- Know that a tornado WARNING means a tornado has been sighted and may be in or headed to your area.

If there has been a warning issued in your area you should:

- Get to safety immediately
- If you are inside, go somewhere safe from flying objects.
- If you are outside, hurry to basement of a nearby building, lie flat in ditch or low-lying area, with hands cupped around the back of your neck (be cautious for sudden floods – do not enter into a culvert as entry and exits may become clogged with debris)
- If you are in a vehicle GET OUT – Do not attempt to outrun a tornado!

Post Tornado

- Watch for fallen power lines and stay out of damaged areas.
- If you are hurt, try to get to communication to call for help.
- If you are trapped in a fallen building stay put movement may cause more collapsing.

Lightning

If you are in a building, close windows and doors and keep away from windows, doors and fireplaces. Don't go out unless it is absolutely necessary. Before a storm hits, unplug appliances including radio, television and computers and do not touch electrical items or telephones during the storm.

If you are outside, get inside a vehicle or building if possible. Avoid water and objects that conduct electricity (i.e. tractors, golf clubs, metal fences). Do not stay in open spaces or under tall objects (trees, poles). If no shelter is available, crouch down, keep feet close together with head tucked down. If you're in a group, spread out, keeping people several yards apart. Remember, lightning victims can be revived with CPR even when there is no pulse.

If you are in a vehicle, stay in the vehicle with the windows closed. Be wary of downed power lines that may be touching your car. Although you may be safe in the vehicle, you may receive a shock if you step outside. Avoid touching metal parts of the vehicle. Do not drive- wait it out. Do not don't park under trees or other tall objects that have the potential to fall over in the storm.

Winter Storms

Always be aware of changing weather conditions, keep updated to television and radio warnings. Know the difference between storm Warning and Watches.

Storm Warnings

A storm warning indicates that a storm is headed for your area. In the case of a warning the following steps may help assist you to safety:

- Stay indoors if possible.
- If you must go outside several layers of light clothing will keep you warmer than a single heavy coat. Gloves and hat will prevent loss of body heat. Cover your mouth to protect your lungs.
- Understand the hazards of wind chill.
- If you are traveling be sure to carry survival gear, keep gas tank full, and let someone know your route.

If you get stuck in a winter storm:

- Stay with your vehicle.
- Ensure your warning devices are in areas that can be seen.
- Start the vehicle and use heater for only 10 minutes every hour and keep exhaust pipe clear so fumes will not back up into the vehicle.
- Leave the overhead light on when engine is running so you can be seen.
- Keep arms and legs moving to keep blood circulating.
- Keep one window away from blowing snow slightly open to let in air.

Flood or Flash Flood

Prolonged rainfall over a longer period of time can cause a river or stream to overflow and flood the surrounding area. A flash flood is caused by a sudden release of water from river, stream, pond etc., or heavy intense rainfall. Regardless the form of flood the rules for being safe are the same.

- Know area's flood risk
- Be alert to possibility of flood due to certain weather conditions
- Know the difference between a WATCH AND WARNING

Flood Warning

If warnings indicate that there is a flood occurring in the area the following safety measures should be taken.

- Do not drive around barricades
- If you are in a vehicle and it stalls in rising waters, abandon it immediately
- Climb to higher ground

12.5 HOT AND COLD EXPOSURE EMERGENCIES

Cold Stress

Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extremely cold or wet weather is a dangerous situation that can cause illness and injury such as hypothermia, frostbite, trench foot and chilblains.

Hypothermia

Hypothermia is caused by exposure to extremely cold weather, cold water, or wearing damp clothing in cold conditions and is a drop in the body temperature below 95°F or 35°C. It causes victims to become drowsy, breathing and heart rate to lower and can lead to unconsciousness or death. Persons suffering from Hypothermia may have the following symptoms:

Early Symptoms (Mild)

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

Late Symptoms (Moderate to Severe)

- No shivering
- Blue skin
- Dilated pupils
- Lowered pulse and breathing
- Loss of consciousness

First Aid

- Request immediate medical assistance
- Move the victim into a warm room or shelter
- Remove wet clothing.

- Warmer the center of their body first - chest, neck, head, and groin - dry layers of blankets, clothing, or towels.
- If conscious, warm beverages may help increase the body temperature. Do not give alcohol.
- Once temperature has increased keep them dry and wrapped in a warm blanket, including the head and neck.
- If no pulse, begin CPR.

Frostbite

Frost bite occurs when tissue begins to freeze at very cold temperature, which most often affects the nose, ears, cheeks, chin, fingers, or toes.

Symptoms

- Numbness
- Tingling or stinging
- Aching
- Aching
- Reduced blood flow to hands and feet
- Bluish or pale, waxy skin

First Aid

- Get into a warm room or vehicle as soon as possible.
- Unless necessary, do not walk on frostbitten feet or toes.
- Immerse the affected area in warm (not hot) water, or warm the affected area using body heat. Do not use heating pad or radiator for warming.
- Do not massage the frostbitten area; doing so may cause more damage.
- If a large area is affected, immerse the affected area in a water bath of 104 – 108°F, 40°-42°C.
- Thawing is complete when the part is pliable, and the color and sensation have returned. Note that a throbbing or burning pain may result. If you cannot assure that the tissue will stay warm after thawing, do not re-warm it. Keeping it frozen will not cause significant additional damage. Seek medical attention as soon as possible.

Trench Foot

An injury of the feet resulting from prolonged exposure to wet and cold conditions that can occur at temperatures as high as 60°F / 15°C if the feet are constantly wet.

Symptoms

- Reddening of the skin
- Numbness
- Leg cramps
- Swelling
- Tingling pain
- Blisters and or ulcers
- Bleeding under the skin
- Gangrene (*Foot may turn dark purple, blue, or gray*)

First Aid

- Remove shoes/boots and wet socks
- Dry feet
- Avoid walking on feet, as this may cause tissue damage
- Seek medical assistance immediately if foot has turned dark purple, blue, or gray.

Chilblains

Ulcers formed by damaged small blood vessels in the skin, caused by the repeated exposure of skin to temperatures just above freezing to as high as 60F/15C.

Symptoms

- Redness
- Possible blistering
- Possible ulceration in severe cases
- Itching
- Inflammation

First Aid

- Avoid scratching
- Slowly warm the skin
- Use corticosteroid creams to relieve itching and swelling
- Keep blisters and ulcers clean and covered.

Protect Yourself

- Wearing the proper clothes/PPE may be most significant precaution to reducing cold stress. Wearing appropriate clothes for cold weather usually involves using three or more layers of clothing. Also use layering to protect head, hands and feet.
- Drink plenty of fluids, preferable warm, sweet beverages. Thirst is suppressed in a cold environment and dehydration may occur when fluid intake is reduced.
- Increase calorie intake when working in cold environments. Workers in cold environments who wear heavy, protective clothing expend more heat and so require 10-15 percent more calories.
- Avoid the cold if you are becoming exhausted or immobilized. These conditions can accelerate the effects of cold weather.
- Use the buddy system, work in pairs when working in extreme weather conditions so co-workers can monitor one another and obtain help quickly in an emergency.

Submersion

In the event that you break through ice your first priority is to ensure you get out of the vehicle/equipment. This is time sensitive, you need to act quickly. The more the vehicle/equipment immerses in the water the more water pressure builds up and it becomes harder to open the door, possibly leaving you trapped as well as you face possible drowning and hypothermia if this happens in winter or cold months or the body of water is normally quite cold.

- Remember not to Panic! This is vital to ensure cohesive judgment calls.
- If you are able, call for help over radio (**emergency, emergency, emergency, your name, and location**).
- Immediately unlock doors and/or, roll down windows. If this is not possible attempt to break a window with an object or tool, apply force to the corner of the glass not the center. Note that a tool punch will work both above and below the water.
- Release seatbelts before you submerge.
- A door opens when the water is below your knees, but as it descends further this option is gone until pressure is equal on both sides of the door which requires the cab filling with water.
- Remember to remove heavy clothing and shoes if your vehicle/equipment is under water.
- Take a long last breath before the vehicle/equipment interior completely fills with water.
- Push open a door if the inside pressure is equal to the outside. If you are in a river, open the door opposite the river flow.
- Swim to land and seek shelter.

Heat Emergencies

Heat illness can be a matter of life and death. Workers die from heat stroke every summer and every death is preventable. When heat stroke doesn't kill immediately, it can shut down major body organs causing acute heart, liver, kidney and muscle damage, nervous system problems, and blood disorders. Workers suffering from heat related illnesses are at greater risk for incidents, since they are less alert and can be confused.

The body cools itself most efficiently by sweating and having that sweat evaporate. Should sweating be unable to meet the cooling demands of the body, heat-related illness can occur. This is a spectrum of conditions with minor symptoms such as prickly heat or heat rash, progressing to heat cramps, then heat exhaustion, and finally to heat stroke, a life-threatening medical condition.

The line between each diagnosis is not sharply drawn. Heat cramps describe involuntary spasm of the large muscles of the body, while heat exhaustion has more systemic complaints. These can include profuse sweating, weakness, nausea, vomiting, headaches, and muscle spasms. The affected individual may have a low-grade fever. Heat stroke is a life-threatening situation where the body's cooling system fails. The body temperature spirals out of control usually greater than 106°F (41°C), sweating stops, and there are mental status changes like confusion, seizure, or coma.

The body has the ability to acclimate to hot weather but if heat waves come suddenly, or if a person travels from a cooler environment to a hot environment, the risk of heat exhaustion increases. It takes about 7 to 10 days for the body to adapt to hot weather. A non-acclimated person can produce a liter or almost a quart of sweat in an hour to assist in cooling the body. A person who is acclimated to the heat can produce 2 or 3 liters of sweat per hour, doubling or tripling the cooling potential for the body.

Note: A variety of medications can impair the body's sweat and heat regulation. These include diuretics, sedatives, tranquilizers, stimulants, some heart and blood pressure medications, and medications for psychiatric conditions. Over the counter cold medications and antihistamines also impair the body's temperature control mechanism. Alcohol consumption can also alter the body's sweat and heat regulation.

Heat Cramps

Heat cramps usually affect the major muscles that are being stressed in a hot environment and the body loses excessive amounts of fluids and salt. This deficiency, accompanied by the loss of other essential nutrients such as potassium and magnesium, typically occurs during heavy exertion.

Heat cramps are most often found in the thigh and leg (quadriceps, hamstrings, and gastrocnemius), the core muscles (abdominal wall and back) and the arm muscles (biceps, triceps).

Individuals at risk for heat cramps include those who work, exercise, or are active in a hot environment. Heat cramps are the earliest symptoms for heat related illness. Heat cramps can also occur after the activity has been completed. For example, construction workers or roofers can develop cramps a few hours after their work shift is over.

Heat cramps can be avoided by drinking plenty of fluids and resting in cool or shaded areas when possible.

Symptoms of Heat Cramps

Profuse sweating with involuntary spasms of the large muscles in the body.
Heat cramps also may be a symptom of heat exhaustion.

Treatment for Heat Cramps

Heat cramps can usually be treated when and where they occur. The affected individual should stop all activity and find a cool place to rest and do the following;

- Cooling of body
- Hydration
- Stretching the muscles that are cramping
- Massage affected muscles gently, but firmly, until they relax.

If the cramps cannot be controlled, the affected individual should seek medical care. There is no specific condition that differentiates heat cramps from heat exhaustion. The symptoms of these conditions form a spectrum from mild to moderate heat-related illness and symptoms overlap. Severe heat cramps may actually be heat exhaustion.

Heat Exhaustion

Heat exhaustion occurs when a person exercises or works in a hot environment and sweating cannot dissipate the heat generated within the body. Often dehydration occurs because the person hasn't replaced the water lost by sweating. Heat exhaustion also may occur if a person lives in a hot environment without adequate air circulation and does not drink an adequate amount of water.

There are two types of heat exhaustion:

- Water depletion – signs include excessive thirst, weakness, headache, and loss of consciousness.
- Salt depletion – signs include nausea and vomiting, frequent muscle cramps, and dizziness.

Although heat exhaustion isn't as serious as heat stroke, it isn't something to be taken lightly. Without proper intervention, heat exhaustion can progress to heat stroke, which can damage the brain and other vital organs, and even cause death.

Symptoms of Heat Exhaustion

- | | |
|-------------------|--|
| • Confusion | • Dark colored urine (a sign of dehydration) |
| • Dizziness | • Fainting |
| • Fatigue | • Headache |
| • Muscle cramps | • Nausea |
| • Pale skin | • Profuse sweating |
| • Rapid heartbeat | |

Treatment for Heat Exhaustion

If you, or anyone else, have symptoms of heat exhaustion, it's essential to immediately get out of the heat and rest, preferably in an air-conditioned room. If you can't get inside, try to find the nearest cool and shady place.

Other recommended strategies include:

- If the person is alert, give the person beverages to sip (such as Gatorade), or make a salted drink by adding a teaspoon of salt per quart of water. Give a half cup every 15 minutes. Cool water will do if salt beverages are not available.
- Remove any tight or unnecessary clothing
- Take a cool shower, bath, or sponge bath
- Apply cool, wet clothes (or cool water directly) to the person's skin and use a fan to lower body temperature. Place cold compresses (i.e. ice/ice pack wrapped in towels) on the person's neck, groin, and armpits.
- For muscle cramps, give beverages as above and massage affected muscles gently, but firmly, until they relax.
- If the person shows signs of shock (bluish lips and fingernails and decreased alertness) starts having seizures, or loses consciousness, call 911 and give first aid as needed.
- **DO NOT** give the person medications that are used to treat fever.
- **DO NOT** give the person salt tablets.
- **DO NOT** use alcohol rubs on the person's skin.
- **DO NOT** give the person anything by mouth (not even salted drinks) if the person is vomiting or unconscious.

If such measures fail to provide relief within 30 minutes, contact a doctor because untreated heat exhaustion can progress to heat stroke.

After you have recovered from heat exhaustion, you'll probably be more sensitive to high temperatures during the following week. So, it's best to avoid hot weather and heavy exertion until your doctor tells you that it's safe to resume your normal activities.

Heat Stroke

Heat stroke is the most serious form of heat related illness and is a medical emergency. If you suspect that someone has heat stroke, also known as sunstroke, you should call 911 immediately and render first aid until paramedics arrive.

Heat stroke can kill or cause damage to the brain or other internal organs.

Heat stroke often occurs as a progression from milder to moderate heat-related illnesses such as heat cramps, and heat fainting, and heat exhaustion. But it can strike even if you have no previous signs of heat injury.

Heat stroke results from prolonged exposure to high temperatures, usually in combination with dehydration, which leads to failure of the body's temperature control system. The medical definition of heat stroke is a core body temperature greater than 105 degrees Fahrenheit, with complication involving central nervous system that occur after exposure to high temperatures. Other common symptoms include nausea, seizures, confusion, disorientation, and sometimes loss of consciousness or coma.

Symptoms of Heat Stroke

The hallmark symptom of heat stroke is a core body temperature above 105 degrees Fahrenheit. But fainting may be the first sign.

Other symptoms may include:

- Throbbing headache
- Lack of sweating despite the heat
- Muscle weakness or cramps
- Rapid heartbeat, which may be either strong or weak
- Behavioral changes such as confusion, disorientation, or staggering
- Unconsciousness
- Dizziness and light-headedness
- Red, hot, and dry skin
- Nausea and vomiting
- Rapid, shallow breathing
- Seizures

Treatment for Heat Stroke

Victims of heat stroke must receive immediate treatment to avoid permanent organ damage.

- Get them to a shady area, remove clothing, apply cool or tepid water to the skin (for example, you may spray the person with cool water from a garden hose, fan the victim to promote sweating and evaporation, and place ice packs (wrapped in cloth, towel, etc.) under the armpits, groin, neck, and back. Because these areas are rich with blood vessels close to the skin, cooling them may reduce the body temperature.
- If the person is able to drink liquids, have them drink cool water or other cool beverages that do not contain alcohol or caffeine.
- Monitor body temperature with a thermometer (if one's available) and continue cooling efforts until the body temperature drops to 101° to 102° F (38.3° to 38.8°C)
- Always notify emergency services immediately. If their arrival is delayed, they can give you further instructions for treatment of the victim.

Preventing Heat Related Illnesses

If you must go outdoors, you can prevent heat stroke by taking these steps:

- Wear lightweight, light-colored, loose-fitting clothing, and a wide-brimmed hat.
- Use a sunscreen with a sun protection factor (SPF) of 30 or more.
- Drink extra fluids. To prevent dehydration, it's generally recommended to drink at least eight glasses of water, fruit juice, or vegetable juice per day. Because heat-related illness also can result from salt depletion, it may be advisable to substitute an electrolyte-rich sports drink for water during periods of extreme heat and humidity.
- Take additional precautions when exercising or working outdoors. The general recommendation is to drink 24 ounces of fluid two hours before exercise and consider adding another 8 ounces of water or sports drink right before exercise. During exercise, you should consume another 8 ounces of water every 20 minutes, even if you don't feel thirsty.
- Reschedule or cancel outdoor activity. If possible, shift your time outdoors to the coolest times of the day, either early morning or after sunset.
- Monitoring the color of your urine. Darker urine is a sign of dehydration. Be sure to drink enough fluids to maintain very light-colored urine.
- Measuring your weight before and after physical activity. Monitoring lost water weight can help you determine how much fluid you need to drink.

Avoid fluids containing [caffeine](#) or alcohol, because both substances can make you lose more fluids and worsen heat-related illness. Also, do not take salt tablets unless your doctor has told you to do so. The easiest and safest way to replace salt and other [electrolytes](#) during heat waves is to drink sports beverages or fruit juice.

Check with your doctor before increasing liquid intake if you have [epilepsy](#) or heart, kidney, or [liver](#) disease; are on fluid-restricted [diets](#); or have a problem with fluid retention.

If you live in an apartment or house without fans or air conditioning, try to spend at least two hours each day -- preferably during the hottest part of the day -- in an air-conditioned environment. At home, draw your curtains, shades, or blinds during the hottest part of the day, and open windows at night on two sides of your building to create cross-ventilation.

Illness	Signs	Response
Heat rash	<ul style="list-style-type: none"> ❶ Red blister-like eruptions/bumps ❷ Itching (prickly sensation) 	<ul style="list-style-type: none"> ✓ Rest in a cool place ✓ Allow the skin to dry ✓ Monitor for infection
Heat cramps	<ul style="list-style-type: none"> ❶ Painful spasms usually in legs or abdomen ❷ Grasping the affected area ❸ Possibly heavy sweating 	<ul style="list-style-type: none"> ✓ Apply firm pressure and massage cramped area ✓ Rest in a cool place ✓ Drink water or an electrolyte drink ✓ Seek medical attention if cramping is severe or does not go away
Heat exhaustion	<ul style="list-style-type: none"> ❶ Headaches, light-headedness ❷ Weakness ❸ Mood changes, irritability or confusion ❹ Feeling sick to your stomach and/or vomiting ❺ Extreme sweating ❻ Decreased and dark-colored urine ❼ Pale clammy skin 	<ul style="list-style-type: none"> ✓ Move the person to a cool, shaded area ✓ Loosen and remove heavy clothing ✓ Have the person drink some cool water ✓ Get something cool on them ✓ If the person does not feel better in a few minutes call for emergency help
Heat stroke	<ul style="list-style-type: none"> ❶ Dry, pale skin ❷ Sweating may still be present ❸ Nausea and vomiting ❹ Hot, red skin (looks like sunburn) ❺ Mood changes, irritability, confusion, and not making any sense ❻ Collapse (will not respond) ❼ Fever (104°F or higher) 	<ul style="list-style-type: none"> ✓ Call for emergency help (ambulance or 911) ✓ Move the person to a cool, shaded area. Don't leave the person alone ✓ Remove heavy and outer clothing ✓ Have the person drink small amounts of cool water ✓ Get something cool on them

Hydration Chart

AM I HYDRATED?		
Urine Color Chart		
1		
2		If your urine matches the colors 1, 2, or 3, you are properly hydrated.
3		
4		If your urine color is below the RED line, you are
5		DEHYDRATED and at risk for cramping and/or a heat illness!!
6		YOU NEED TO DRINK MORE WATER!
7		
8		

12.6 REMOTE LOCATION

Responsibilities

Employees are responsible to be familiar with the Remote Location Emergency Response Plan and complete the ERP in conjunction with the Journey Management Plan Form when a JMP is required. They are responsible to participate in the appropriate training required and use the appropriate equipment necessary when working in remote locations.

Supervisors are responsible to ensure that employees work in compliance with the Remote Location Emergency Response Plan. They will consult with employees to determine what tasks or work sites are considered to be remote. Supervisors will maintain Remote Location Plans and provide training and equipment for working in remote locations.

Communication

Employees who must work in remote locations are required to have and know how to operate a suitable communication device i.e. two-way radio or cellular phone. Employees are expected to know the limitations of the communication devices i.e. "dead areas" lacking cellular phone coverage, and to make other arrangements for establishing contact when working in "dead areas". GPS tracking will be utilized to track and monitor the location of employees and equipment working in remote regions.

Equipment

Employees working in remote locations should carry a basic survival kit. This kit may include:

- 3 blankets
- candles
- a knife or hatchet
- First Aid Kit
- matches
- water
- plastic sheet
-

Training

All employees working in remote locations will be trained in (but not limited to) H2S, Ground Disturbance, WHIMIS and CSTS. Employees working in a remote location will have supervisors/employees with a Standard First Aid Certificate on site. The number of First Aid Trained employees per remote location will be determined in accordance with OH&S Regulation Sections 178, 181 (1) Schedule 2

Transportation of Injured workers

Transportation of seriously injured workers will be carried out by trained search and rescue and/or emergency medical staff responding to the emergency rescue scene. Direct access by emergency vehicles such as ambulances, may not be possible and local emergency response or rescue organizations such as STARS may be required. Transportation by trained search and rescue or emergency medical staff will be deemed necessary in the case of an immobilizing injury i.e. head or spinal injury, severe fracture etc. Search and Rescue can be contacted by dialing 9-1-1 or local emergency services if 9-1-1 is not available. GPS tracking will be utilized to provide exact location of injured workers to rescue/emergency medical staff.

Remote Location Planning Guidelines

Supervisors/Dispatch will develop and be accountable for maintaining a communications system to manage staff working in remote locations. This system will include an established phone in system that is known and used by all staff.

GPS tracking will be used to monitor the position of crews and equipment working in remote locations

Employees must notify their Supervisor when they are traveling to a remote location and also the approximate time of their return. Employees must also notify their Supervisor of any unique details of the trip i.e. on the water, out of contact by cell phone etc.

If there is a change in plans the employee must notify their Supervisor of the change.

If the employee is returning late, or not at all, the employee must inform their Supervisor or Dispatch immediately. Notification should also be made to someone else (i.e. a family member). In the event that the employee does not return in the expected time, the Supervisor, in consultation with the Management, with consideration for a reasonable time frame, will initiate a search.

FORMS - See Appendix B

- Emergency Response Plan (ERP)

SECTION 13: INSPECTIONS & AUDITS

13.1 RESPONSIBILITIES

Management is responsible for the overall operation of the program. Overall operation includes, performing quarterly inspections, making recommendations, follow up on deficiencies and promoting the program to all supervisors and workers.

Supervisory personnel are responsible for directing formal inspections on job sites that they control, and involve workers in such inspections, on a regular basis. Inspections must be reviewed and signed off by the foreman or supervisor responsible.

Workers are responsible for participating in and contributing to the inspection program. All levels within the company are responsible for conducting ongoing informal inspections of areas where they are working.

13.2 FORMAL INSPECTIONS

Field Site Inspections

Foremen are required to conduct at minimum one site inspection per week for extended job sites that they are responsible for. Sites that run from three to seven days must have a minimum of one inspection carried out. Any site in which work is only being carried out the day of, does not require a formal inspection. Informal inspections are encouraged to be ongoing.

Pidherney's HSE personnel will conduct a minimum of one HSE field site inspection per week cumulatively. Additionally, HSE Advisors will conduct unannounced field site inspections recurrently.

Operations Management Personnel and/or Superintendents and/or Project Managers will document all field visits with a minimum of one formal documented HSE site inspection per month

Rocky Mountain House Office

The Rocky office will require one inspection per month. This is to be completed by either the Office Manager, or a member of the Safety Designate. A copy of the most current inspection is to be posted in the back-coffee area.

Transit Mix

The Transit Mix office and site must have a minimum of one inspection carried out per month. This is to be completed by either the On-site Supervisor with the HSE Manager or Manager's designate. A copy of the most current inspection is to be posted in the Transit Mix office.

Shop

Shop Inspections are to be completed at a minimum of once per month. The inspection is to be carried out by a member of the Safety Designate and the on-duty Shop Foreman. A copy of the most current shop inspection is to be posted by the parts department door.

Blackfalds Office

The Blackfalds office is to have one inspection carried out per month. This is to be completed by a member of the safety department. A copy of the most current inspection is to be posted up in the Blackfalds office.

13.3 INFORMAL INSPECTIONS

Informal inspections involve noting apparent or potential hazards, substandard conditions or actions, and, if possible, immediately correcting the problem, or notifying the Supervisor to initiate corrective actions. Informal inspections should be conducted regularly by workers.

13.4 PPE INSPECTION

All standard issue Personal Protective Equipment (PPE) is inspected by Workers on a daily basis prior to use. It is the responsibility of each worker to ensure their PPE is maintained in good working order and in accordance with legislative requirements. Standard issue PPE would include hard hat, reflective vest, steel toe boots, coveralls, safety glasses and gloves. HSSE critical equipment such as Gas Monitors will be bump tested and visually inspected before use. Fall Arrest equipment will also be inspected on an pre-use basis.

13.5 VEHICLE AND EQUIPMENT INSPECTIONS

Inspections are to be completed prior to equipment or vehicle being used. More information on vehicle and equipment inspections can be found in Section 14 - Driver & Transportation Compliance and Section 8 - Preventative Maintenance of this Safe Work Manual

13.6 CORRECTIVE ACTIONS

Action Items identified for correction will be assigned to an individual, followed up on and signed off for completion. Any hazards or non-conformance shall be dealt with by those assigned in a timely manner. It is the responsibility of the HSE Manager to ensure that the corrective actions have been completed and are effective. Safety Advisors are to assist in the implementation and follow up of this process.

13.7 RECORD KEEPING

Copies of worksite inspections will be kept on file for a period of **7** years.

13.8 AUDITS

Annual Reviews & Audit Program

Purpose

The purpose of annual reviews and internal/external audits are to ensure that Pidherney's Safety Management System operates efficiently and effectively in accordance with industry standards, government legislation and its own Safety Management System.

Assessment Team

The audit committee will consist of two to six members with the majority of the members consisting of the Safety department. Members of the Safety Department conducting COR audits will be certified ACSA peer auditors. Other employees completing internal audits in selected departments will be knowledgeable and qualified to complete such audits.

Customer Assessments

Customers will audit Pidherney's Road Transport Compliance and Safety Management Systems. The audit committee will assist and support customers in the execution of such audits by providing all required documentation and considering the implementation of customer recommendations. Any changes required as a result of customer assessments will first be approved by management, recorded on a Revision Request Form and documented in the review process.

Annual Policy Reviews

All written formal company safety policies will be reviewed on an annual basis by the Safety and Operations Departments and signed by the Vice President of Pidherney's. If no changes to the policy are required, the date will be revised for the new program year. All revisions to any company policy will be documented on the Revision Request Form and approved or declined by the Safety Department. The Company Safety Policy & Vision Statement shall be reviewed by all employees annually for each program year.

Procedure and Hazard Analysis Reviews

Procedural and hazard specific document reviews address particular issues such as how to complete a procedure safely or using hazardous substances and involve the inspection and testing of current workplace control methods. This type of audit has a narrow focus and looks at the effectiveness of procedures and hazard controls in dealing with specific hazards. These audits differ from compliance audits in that the standards set by Pidherney's to assess hazards may exceed legislated requirements. The development and review of these documents is covered in section six (6) of this Safe Work Manual.

Log Book & Trip Inspection Audits

Transportation Compliance log book and trip inspection audits are conducted on 25 of our NSC drivers on a monthly basis. Audits are conducted over a three-day period each month. Drivers are chosen if they are a new/re-hire, delinquent with paperwork, and at random choosing. Section 6 of the *Driver's Hours of Service Regulation* (AR 317/2002) states that carriers must ensure their drivers do not exceed provincial driving limitations. Auditing is completed, as recommended by Carrier Services, to show our due diligence in enforcing the Hours of Service Regulations.

Once audited, drivers are required to sit with a member of our Transportation Compliance department to review and sign the audit document within 15 days of completion of the audit. The

SECTION 13: Inspections & Audits

original document is stored in the driver's logbook file and a copy is forwarded to the Human Resource Department for their personnel file.

Internal Carrier Profile Audits

Once per month Pidherney's will pull a carrier profile from the Alberta transportation Travis system. These profiles are pulled the week after the first Sunday of the month for the month previous. Pidherney's pulls them to monitor driver compliance with legislation and also to see what, if anything has not been reported to the Pidherney's compliance department during that time. Carrier profiles are checked for unreported CVSA violations, unreported traffic stops, collisions as well as erroneous entries where the wrong license plate may have been entered into the system and ended up wrongly on our profile. Should a driver fail to report any traffic violation, the transportation compliance or operations department would start a disciplinary process. The compliance department also monitors Pidherney's r factor and out of service rate. We use these statistics in the training of our team, to identify gaps in the compliance processes and to ensure the compliance with our fleet vehicles.

National Safety Code (NSC) Audits

At Pidherney's we prepare for an NSC audit year-round by ensuring maintenance files and driver files are consistently kept up to date with the required information. NSC audits are completed by carrier services at their discretion. The transportation compliance department will assist and support carrier services in the execution of such audits by providing all required documentation and ensuring the implementation of carrier services recommendations. Any changes required as a result of a NSC audit will first be approved by management, recorded on a revision request form and documented in the review process. National safety code audits will be completed by the date determined by vehicle and carrier services.

Maintenance Program Audits

Audit measures are employed by the Maintenance Department to ensure that scheduled maintenance programs are being adhered to on heavy equipment and heavy trucks. Lists are distributed twice per week to various departments flagging units approaching or overdue for service, and units remain flagged until appropriate documentation is received. Accurate and timely meter readings (hours and/or kms) are key to ensuring the maintenance program is followed, therefor units are reviewed weekly and those requiring reads are flagged.

Audits are in place to ensure timely inspections of units falling under the commercial vehicle inspection program (CVIPS). Lists are distributed weekly of units approaching or overdue for inspection and they remain flagged until documentation is received. Any overdue unit will be "parked".

A registration audit is performed in December prior to the annual motor vehicle fleet renewal to review licensed weights and ensure all registrations are in place.

Internal COR Audits & COR Action Plans

Internal COR audits or COR action plans are executed on a cyclical basis. These audits are performed to monitor compliance to and success of Pidherneys Safety Management System. The internal audit committee will prepare an audit plan and submit it to the Vice President for approval. The audit plan will include Scope, Inspection sites, expected start date, audit resources and expected end date. All internal ACSA audits will be completed within 45 days. The auditors will use the ACSA COR audit protocol. An executive summary report will be created and its

recommendations used to create an internal HSE improvement plan. Specific action plan items will be communicated to employees annually via a company safety bulletin.

External COR Audits

External COR audits are executed on a third-year cyclical basis. These audits are performed to monitor compliance to and success of Pidherney's Safety Management System. The auditor will use the ACSA COR audit protocol. All external ACSA audits will be completed within 45 days. An executive summary report will be created, and its recommendations used to create an internal HSE improvement plan. Specific action plan items will be communicated to employees via a company safety bulletin.

Where external auditors are engaged for audit work, specific requirements for their engagement must include

- a) A description of the services to be provided
- b) Budget approval
- c) Conflict of interest clearance
- d) Confidentiality obligations

13.9 AUDIT CLOSE OUTS

The auditor will present the findings of each audit to their direct supervisors. Depending on the audit type, the findings will be reviewed by the operations department and the vice president. Each employee conducting audits will refer to the requirements in this section to determine the close out requirements for each audit type.

All audits will be tracked in Pidherney's outlook program by assigning tasks to individuals responsible for completing each audit. Task assignments will be monitored and followed up by the employee's direct supervisor. Audit processes will be reviewed every two years to ensure processes are still relevant and the processes are being followed by auditors.

FORMS - See Appendix B

- Site Inspections

SECTION 14: VEHICLE & DRIVER

Pidherney's vehicles and equipment are the main elements that drive the daily work within our organization. Without properly licensed and trained Drivers and Commercial Drivers our operations would cease. Therefore, it is imperative that all company owned vehicles are operated by an individual who is licensed and competent to operate the vehicles assigned to them.

14.1 DEFINITIONS

Driver: A driver is any person employed by Pidherney's who does or may drive a company vehicle of any class.

Vehicle Incident: A collision, causing damage, involving a moving motor vehicle and another vehicle, object, animal, or person. This only includes accidents involving company-owned vehicles, and personal or rental vehicles being used for company purposes.

14.2 LIGHT DUTY SERVICE TRUCK & DRIVER

Light duty service trucks at Pidherney's are defined as any company owned vehicle under the registered weight of 11,794 kg. These trucks include $\frac{1}{2}$, $\frac{3}{4}$ and Non-CVIP 1 ton units. Any commercial vehicle registered over 4500 kg is required to stop at inspection stations and scales.

Driver Abstract

New employees will sign an abstract release form during their orientation. Driver abstracts will be kept in the employee files and Human Resources will update yearly on their employment anniversary. Any employee/driver with 6 or more demerit points on their license will be identified to Dispatch, Operations and Safety departments via email notification.

Load Securement & Evaluation

Training requirements prior to hauling trailer:

- All Personnel must complete the following training prior to hauling a trailer.
- Complete ACSA Online "Load Securement Safety Course (LSSC)". Topics includes; Safe Securement System, Loading/Unloading Equipment, Securing the Load, and On the Road.
- Practical training must include;
- Training of worker by Competent Personnel;
- SOP "Trailer Safety & Hookup Procedure
- SOP Securing Equipment to Trailer
- SWP Load Securement
- Review Pidherney's "Three Basic Rights" ensuring workers has the right of refusal if he/she feels it is unsafe for them to proceed.
- Completion of Vehicle Safety Inspection and Condition Report. A Pre-& Post inspection MUST BE completed each time a trailer is hauled. Copies of completed forms must be given to Foreman at the end of each day.
- Conduct practical training for hooking up trailer, following Pidherney's Trailer Competency Checklist.
- Trailer Competency completed.

SECTION 14: Light Vehicle & Drivers

- Worker receives;
- Copy of Trailer Safety & Hook Up, Securing Small Equipment to Trailers, and Load Securement.
- Laminated Visor Trailer Hook Up and Load Securement Cheat Sheet. To be placed above the Driver's visor in company vehicle for future reference.
- Once training is complete and competency deemed, all documents must be submitted to Superintendent/Designate for approval.
- Once approved, training documents must be submitted to HR and a training certificate will be issued to trained Personnel. Trained Personnel must show proof of training when requested prior to hauling trailer.

Light Duty Vehicle Use

Company vehicles are to be used for company purposes only. Any use of company vehicles after hours or for personal use is not permitted. If the company vehicle is used for personal use, the employee may be terminated and \$ 0.50 per kilometer driven will be charged back to the employee.

Additionally, no employee shall keep or transport any illicit drugs, alcohol or weapons in any Pidherney's owned vehicle at any time.

Driver Responsibilities

Prior to assigning vehicles, a documented inspection is completed by the Yard Coordinator, reviewed and signed by Issuer. Once the vehicle is returned, another documented inspection is completed, and the Issuer signs off.

All service trucks are inspected by the Yard Coordinator or designate prior to issue and documented on Pidherney's "Light Duty Truck Inspection" Report. This inspection is a visual inspection of vehicle interior and exterior and does not cover mechanical inspections. When the vehicle is issued to a driver, the Yard Coordinator or designate and driver conduct a walkaround and review the inspection report, once completed the driver signs off on the inspection. When the vehicle is brought back to the yard, another inspection is completed by the Yard Coordinator/designate and driver to ensure the truck is in satisfactory condition.

Weekly vehicle inspections are required for all Light Duty Service Trucks (1/2 or 3/4 Ton), One Ton vehicles and truck and trailer must be inspected daily and documented on Pidherney's "Vehicle Safety Inspection and Condition Report". In some cases, 1/2 or 3/4 Ton inspections where Owner/Clients request, inspections will be done daily.

Prior to operating any vehicle and exiting any parked location, drivers must complete a 360 degree walk around the vehicle to ensure a clear exit path. The driver must identify workers who may be on foot, overhead hazards, and identify any stationary objects that will require special maneuvering.

All Pidherney's company owned vehicles must remain locked when vehicle is not in use. This includes but not limited to use at Pidherney's job sites, maintenance yards and lodging/accommodations.

It is the responsibility of the employee who has been issued the company vehicle to ensure all issues with the vehicle are communicated to the Service Coordinator. Furthermore, the employee shall maintain the cleanliness of the unit; this includes washing the vehicle on a steady basis. Garbage should be cleaned out of truck cab and box on a daily basis as any item that has the

SECTION 14: Light Vehicle & Drivers

potential to come out of the box is considered an unsecured load and can be ticketed or fined by local law enforcement.

Drivers must notify Pidherney's Human Resources Department of any changes to their Driver's License status.

Vehicle Use

Only employees of Pidherney's are permitted to ride in a Pidherney's owned vehicle, unless approved by Management. In an emergency situation, any person may ride in a vehicle owned, leased or operated by Pidherney's.

Driver's Requirements

Drivers must possess a valid driver's license. Employees will be orientated on policies and/or procedures that apply to their position and are responsible to comply to ensure a safe work environment for them and others.

BEFORE being hired at Pidherney's Inc., the employee will be required to provide the following.

- a) valid driver's license;
- b) driving record (abstract) (current within the last 30 days);
- c) report of accidents, traffic, criminal and/or dangerous goods of offences;

14.3 INCIDENT REPORTING - DRIVERS

The primary objective of Pidherney's is to eliminate injury and reduce monetary loss through the prevention of incidents.

All incidents must be reported and investigated according to the Pidherney's incident reporting procedure found in Section 11.5 – Incident Reporting requirements in this manual

Driver's Response following an "On Road" vehicle incident

- Stop the vehicle
- Care for the injured and provide first aid if necessary
- Protect the scene from further mishap by placing reflective triangles or reflectors 30 meters to the front and rear of the collision. If the collision occurs at night, the reflectors must be placed 75 meters from the collision.
- Ensure witness names, vehicle and insurance information and third-party information is collected.
- Do not admit liability or provide an opinion
- Ensure all information reported to Pidherney's and the investigating authorities are factual.

14.4 DRIVER VIOLATION REPORTING

Any violations that affect your Driver's Abstract must be reported immediately to Human Resources. This ensures that safety is not jeopardized due to lack of driver awareness, poor maintenance or vehicle failure.

Drivers are to report any driving violation incurred while operating a company vehicle. Pidherney's Transportation Compliance Department will review these violations to create a possible means of

SECTION 14: Light Vehicle & Drivers

prevention. Recommendations will be provided to better improve driver awareness and if considered necessary, drivers may be scheduled for an in-house refresher driver's course. Copies of violations received will be retained in the driver's file.

Commercial Vehicle Inspection Reporting Procedure

The purpose of this procedure is to outline the steps that *must* be taken if you are pulled over by an Alberta Transportation Officer, RCMP Officer, Municipal Officer or checked at any Scale or AB Transportation Check stop and issued a "Commercial Vehicle Inspection Report" or a Violation Ticket.

All Pidherney's company vehicles are registered as Commercial Vehicles. It necessary for the Transportation Compliance Department to be aware of any Inspections and/or Violations in order to adequately address any defects found in company vehicles.

If you receive an Inspection or Violation, please follow these steps:

- 1 If the report states that the vehicle in question has been classified as "Out of Service", the vehicle must be parked, and the driver is to immediately notify their immediate supervisor. The Supervisor will then contact a member of the Compliance Department. A copy of the report/violation must be given to an immediate supervisor by the end of that day's work shift, or sooner where possible.
- 2 If the reports states that the vehicle in question has been classified as "Defect Noted", the vehicle may be driven back the nearest Pidherney's Office. The driver must immediately notify a supervisor who will then contact a member of the Compliance Department. A copy of the report/violation must be given to an immediate supervisor by the end of that day's work shift, or sooner where possible.
- 3 If the vehicle receives a "Pass", the documentation still needs to be forwarded and immediate supervisor and then to the Rocky Office.
- 4 The report must be received by the Transportation Compliance Department within 12 hours of occurrence. Report can be faxed to: 403.845.5370

14.5 JOURNEY MANAGEMENT PLAN

The purpose of the Journey Management Plan is to ensure the health and safety of employees that are required to travel an extended distance for work purposes.

When compulsory by an Owner/Client, Pidherney's employees who will be traveling further than a 350-km radius from point of dispatch must comply with the Journey Management Plan as outlined below.

Responsibilities and Duties

Management

- Ensure that a Journey Management Plan is available and reviewed annually.
- Ensure that a copy of the Journey Management Plan is readily available to all.
- Ensure that when it is practicable, other safer means of travel are considered, such as air, train, etc.
- Ensure that all GPS are functioning prior to dispatch.

SECTION 14: Light Vehicle & Drivers

- Ensure that employees know that they have the authority to stop work if unsafe conditions or actions are present.
- Ensure that the Supervisor's GPS accounts are adequately updated to reflect the units that they are responsible for.
- Ensure that there is a reliable method of communication with the traveler.

Supervisors

- Clearly communicate the Journey Management Plan with the affected employees prior to dispatch.
- Do not dispatch employees in adverse weather conditions, whenever practicable.
- Whenever practicable road travel is completed during daylight hours.
- If multiple units are required for travel and if applicable they travel together as much as possible.
- Prior to taking a trip to an unfamiliar location, clear driving directions are given and whenever able a copy is provided which may include a map.
- Road travelers must have scheduled rest stops.
- Ensure that their GPS account has the corresponding unit for monitoring and compliance purposes.
- Follow up with any violations as appropriate.
- All trips are documented with the necessary information on the Journey Management Form and signed off once safe arrival has been confirmed.
- Forward the original copy of the completed Journey Management Form to the safety department.

Employees

- Clearly understand the expectations outlined in the Journey Management Plan.
- Abide by the expectations and requirements of the Journey Management Plan.
- Obtain a copy of the Journey Management Plan and retain this until the trip is complete.
- Phone in to or see their immediate supervisor and provide the following information when their expected travel plans exceeded the 350 km radius distance.
 - Dispatch location
 - Route of travel
 - Destination point
 - Expected time during travel
 - Unit #
 - Scheduled rest stops
 - Check in time
 - Expected weather conditions or any other known hazards.
 - If any other employees will be accompanying them
- Abide by the fatigue management program.
- Abide by all legislative and company rules.

Communication

Supervisors and Employees should remain in communication as per the instructions laid out in the Journey Management Plan Form. Any deviation or change in the Journey Management Plan should be immediately communicated to the Employees' direct Supervisor / Dispatcher.

At the end of a journey requiring a JMP, the Driver is to notify Pidherney's Dispatch within 30 minutes of such completion. The driver will update dispatch of their location at each load check. All JMP's will be tracked through Fleet Complete with Dispatch to verify Driver communications.

SECTION 15: WCB Claims Management

SECTION 15: WCB CLAIMS MANAGEMENT

The most important asset of Pidherney's is its people. The people in our workplace and on our worksites are at the greatest risk for injury or occupation illness. It has been proven that having injured workers return to the workplace as soon as is permissible to do meaningful work contributes to a "win/win" situation for both the employee and the organization. This is observed by our active approach to Claims Management.

The term "Modified Work" simply means the normal work activities of the injured employee have been temporarily changed to accommodate the limitations imposed by the injury. The Modified Work Program is intended to allow and encourage an employee to remain a productive member of our workforce. The Modified Work Program must meet the criteria for meaningful, value-added work. This means the duties will increase the employee's knowledge, skills and/or experience, and will be integral and valuable to the work and business of the organization.

15.1 INJURY RESPONSE AND REPORTING

Refer to Section 10 Incident Investigation

15.2 MODIFIED WORK

Modified work assists in the rehabilitation and early return to work of ill or injured employees.

All Pidherney's employees are made aware of the Modified Duty Program for a safe return to work in Pidherney's new hire orientation. Upon workplace injury or illness, the worker will meet with a member of Pidherney's safety department to establish a safe return to work plan, to include meaningful modified duties based on restrictions as outlined by their acting physician.

Pidherney's, wherever possible, will provide suitable (temporary) work to any employee unable to perform their regular duties. This may include modification of the employee's original position, providing an alternative position for the worker, or providing training.

Only work that is considered to be meaningful and productive, while ensuring physical demands of alternate duties are assessed and can be safely performed addressing any restriction or limitations placed on the worker, will be considered for use in the Modified Work Program.

All modified work injuries must be reported to the Worker's Compensation Board. Therefore, the following steps will be undertaken for the modified work injury.

Review of the "Incident Information Package"

The Supervisor will ensure that the information package is reviewed with the injured employee upon report of an injury, before the employee leaves the worksite, or at the earliest possible opportunity. The Supervisor will also ensure that all the necessary documentation and information is completed and faxed to the designated safety personnel.

- The Supervisor or his designate will accompany the employee to the medical service provider and the "letter to physician" and "medical assessment form" must be presented to the medical service provider. The medical service provider will complete the "medical assessment form".

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- When applicable, an OIS Clinic will be utilized for medical services with the employee's approval.
Note: OIS or Occupational Injury Service is a program specifically designed for people who are hurt at work. It helps employers by providing injured workers with expedited access to medical services at special OIS clinics throughout the province. The focus is on helping injured workers return to work as quickly and safely as possible.
- The WCB Worker's Handbook will be given to the employee and the employee will complete and sign the "Worker's Report of Injury or Occupational Disease" (C060).
- The Employee will sign the Medical Release
- The Employee will sign form acknowledging Modified Work Program.
- These forms will be submitted to the designated safety personnel.

Collection of Documents

The designated safety personnel will review these documents when they are received and submit to Pidherney's disability management provider.

Offer of Modified Work

The designated safety personnel and the employee's Supervisor will work together to arrange a modified work plan.

A written Offer of Modified Work must be presented to the employee. This offer will state the following information.

- a) Specific job duties to be performed.
- b) Pay rate. This will be the same rate of pay as their pre-incident employment.
- c) Hours of employment. These are important in the case of transitional employment where the hours may vary during the placement.
- d) Length of placement. This will be noted and made clear to the employee.
- e) The offer will be signed by the employee and the supervisor/designated safety personnel and will be forwarded to the disability management provider immediately.

Refusal of Offer

Any refusal by an employee to participate in the Modified Work Program will be dealt with immediately by interviewing the employee and recording the reasons for not participating in the Modified Work Program. The employee needs to sign the Offer of Modified Work "Refusal" section and indicate the reasons for refusing the offer. The employee must be made aware that by refusing a reasonable Offer of Modified Work, he or she may not be eligible for wage loss benefits through the Worker's Compensation Board.

Monitoring of Modified Work

Once the employee has been placed on modified duties, the Supervisor and designated safety personnel will monitor the progress of the employee on a regular basis and address any concerns immediately. The employee will keep all medical appointments and follow all medical instructions. All physiotherapy, chiropractic, and practitioner appointments should be arranged before or after working hours or as close to the beginning or end of their shift as possible. For each medical appointment, a Medical Assessment Form must be taken by the employee and completed by the medical service provider. If the medical service provider does not fill out the forms, the employee must request that the doctor give him a note outlining his/her progress. Once completed by the medical service provider, it must be submitted (i.e. faxed, emailed, dropped off) as soon as possible to Pidherney's designated safety personnel so that they and Pidherney's disability management provider stay up-to-date on the employee's current medical status and progress.

SECTION 15: WCB Claims Management

Responsibility of the Injured Employee

Employees are responsible for keeping all medical appointments and returning with medical documentation after each visit. Employees are also responsible for keeping their Supervisor informed of any changes in their medical treatment program or medical appointments. If the employee is unable to come into work for any reason they must inform their Supervisor immediately. The Supervisor must immediately inform the designated safety personnel who will advise Pidherney's disability management provider if it will be a compensable day off. The employee is also responsible for contacting the designated safety personnel if they are being asked to work in conditions or to perform duties that are not within their listed work restrictions.

Return to Regular Duties

When medical clearance is received for the employee to return to regular duties, the designated safety personnel will inform Pidherney's claims management provider.

NOTE: The Worker's Compensation Board considers any variation of an employee's regular duties as "Restricted/Modified" work.

15.3 CASE COORDINATION

To ensure that all claims are effectively managed and in order to allow as early and safe return to work for the injured employee, communication will be maintained regularly with the injured employee or their families, medical service providers, and WCB. The injured worker's Supervisor in cooperation with the designated safety personnel will monitor the progress of any employee returning to modified work or regular duties.

The following steps will be taken to coordinate claims management:

Supervisor

1 Maintain Contact with the Injured Employee

In the case where an employee is unable to return to work, the Supervisor must contact the employee at least once a week to ask about the general condition of the employee, the nature of the treatment they are receiving, what medical service provider they are seeing and the date of all appointments. All contacts will be recorded and submitted to the designated safety personnel who will in turn submit it to the disability management provider.

2 Follow status of Injured Employee after his/her return to work

Once the employee has returned to work on modified work duties, the Supervisor must follow-up with the employee on a daily basis until the employee has resumed their regular duties; this ensures that any problems or concerns that may arise can be addressed immediately. Any problems will be brought to the attention of the designated safety personnel immediately. The Supervisor will keep notes on any contact made with the employee during this time and forward copies to the designated safety personnel. Once the employee has resumed full regular duties, the Supervisor should follow-up with the employee each week for up to two weeks to ensure that there are no ongoing concerns.

Pidherney's Designated Safety Personnel

Pidherney's designated safety personnel is the single point of contact between Pidherney's and Pidherney's Disability Management Provider. The designated safety personnel are responsible for the following actions following receipt of the report of an employee's injury;

SECTION 15: WCB Claims Management

1 Create a file

A WCB file will be created which will include any and all documents and conversations related to the claim. The file will be kept in Pidherney's safety department and treated as highly confidential.

2 Contact the WCB

The designated safety personnel will maintain weekly contact with Pidherney's disability management provider. This ensures information on the progress and condition of the employee is up-to-date for both parties. The designated safety personnel and Pidherney's disability management provider will discuss what the treatment or rehabilitation plan is; the likely date of a return-to-work and discuss any work restrictions. The amount and type of benefits provided to the injured employee should also be discussed. All contact, details, conversations and medical information will be recorded in the file. The designated safety personnel will determine the validity of the claim and if necessary appeal any questionable decisions made by the WCB and/or request denial or cost relief on the claim.

3 Determine Injured Employee's Fitness to Return to Work

Prior to any return to work, whether to regular duties or to modified work, the designated safety personnel, along with the Supervisor and any medical service providers, will discuss and determine the fitness of the employee. Medical clearance will be obtained from the treating medical service provider.

4 Review Claim Costs

Pidherney's will monitor the monthly Claim Costs Summaries to ensure that costs are applied correctly, and discrepancies are recorded and corrected.

SECTION 16: ENVIRONMENTAL PROTECTION PLAN (EPP)

Any item of suspected paleontological, historical or archaeological significance shall remain the property of the owner/client, shall be preserved and recovered within the requirements of the Alberta Historical Resources Act. Pidherney's will notify the owner/client whenever any item of paleontological, archaeological or historical value is discovered and suspend operations on the Work immediately until the owner/client issues instructions and authorizes that the Work may proceed. The owner/client and all applicable regulatory bodies will be notified as required during this investigation. Mobilization to another work site will occur by Pidherney's so as not to impede the overall project schedule.

All other Alberta Laws and Regulations shall apply as appropriate and Pidherney's shall comply with the requirements thereof as though they had been specifically named in these specifications.

16.1 BURNING

Pidherney's and their subcontractors will not conduct any burning on the worksite without the appropriate authorization and permits. All service vehicles are equipped with fire extinguishers.

16.2 REGULATIONS, STANDARDS AND CODES

Pidherney's will comply with Codes, Standards and Regulations and the WORK shall be done in accordance with those Codes, Standards and Regulations where applicable.

16.3 ENVIRONMENTAL PROTECTION PLAN

Site Representative

It is Pidherney's responsibility to provide the resources to ensure the implementation and control of this EPP. Pidherney's project superintendent, will be assigned responsibility of:

- Ensuring the EPP requirements are established, implemented, maintained and monitored.
- Reporting the performance of the EPP to management for review and the basis of improvement of the EPP.

Changes to the EPP plan are to be communicated and understood by the employees and subcontractors. Changes to the EPP during construction will be recorded on the hazard assessment. Records of training and orientation will be kept and made available as required.

Training and Communication

The EPP will be discussed at the kick off construction meeting held between the client, employees and subcontractors. Information and changes to the EPP throughout the project will be discussed at safety meetings. Onsite employees and subcontractors will review the EPP and will be trained on emergency spill procedures as per Pidherney's Safe Work Manual. EPP topics will also be discussed at regular safety meetings.

Monitoring and Reporting

Pidherney's employees and subcontractors are required to report any activities or situations that may carry a significant impact to the environment to the onsite supervisor. It is Pidherney's Project Manager who informs the client of any incident report that may be made and to handle matters appropriately. Work would stop immediately if required. Monitoring will be visually performed by the foreman and superintendent continually during the course of the project. Recorded inspections will take place weekly and after significant storm events (Storm and/or 40mm rainfall over 24-hour duration). Inspections will be performed by a designated employee. Inspections will include all areas of erosion or sediment concern, storage of hazardous and non-hazardous materials, refueling/maintenance area, and any areas that may have hydrocarbon contact, and any areas outlined in permits, approvals or authorizations. Pidherney's ECO plan checklist or Site-Specific ECO Checklist will be used for weekly inspections.

Documentation

This EPP and updates to this document will address the documentation requirements to the EPP. All records or documentation to the EPP will be made available.

Training

Audits

Reviews

Inspections

EPP Update

Any revisions to the EPP are to be controlled through addendums to this document, documented in Appendix B, and kept on site in a master hard copy.

When investigating and correcting issues of nonconformance with the EPP the following actions will be taken:

- Identify the cause
- Implement corrective actions
- Implement and modify controls to avoid repetition
- Record changes to the written procedures as required
- Communicate the changes to appropriate employees and subcontractors

Any resulting actions which will change the EPP implementation or operation will be forwarded to the owner/client for review and acceptance before they are implemented, excepting emergency corrective actions which will be reviewed after the situation has passed.

Operational Control

This document identifies the operation and activities that are associated with the environmental aspects of this project and ensures that they are carried out by establishing and maintaining activity related procedures and operating criteria.

Subcontractor Implementation

Subcontractors will be expected to review and adhere to this EPP as outlined for this project. Subcontractor employees will sign off using employee Site Specific EPP awareness and acknowledgement form.

16.4 ENVIRONMENTAL PROTECTION MEASURES

The following work procedures will be implemented by Pidherney's, in accordance with the EPP established for the work, as described herein.

General Measures

Contracts	The EPP will form a part of the Construction Contract with the owner/client when required.
Discipline	Those who disregard the EPP shall be removed from the work.
Safety	Pidherney's will follow all applicable AB OHS Act & Regulations, Company safety policies, practices, and procedures.
Training	Pidherney's will be responsible for ensuring Pidherney employees &/or subcontractors are familiar/acknowledge the EPP requirements and are able to implement/assist in emergency spill response plans. Employee EPP awareness and acknowledgement sign off form is located in Appendix B.
Environmental inspector for Pidherney's	Pidherney's will employ a suitable, qualified employee to ensure adherence to the EPP. Duties to include distribution and implementation of the EPP, maintain liaison with government field representatives, maintain and prepare inspection records and reports and to resolve issues that arise. This employee or designate will complete the ECO plan checklist a minimum of once per week during construction. Deficiencies are to be reported to Pidherney's project supervisor who will rectify any such deficiencies in a timely manner.
Environmental inspector for Owner/Client	The owner/client's onsite inspector will monitor the implementation and effectiveness of Pidherney's EPP. If EPP requirements are not being met as laid out in this document, the owner/client will suggest and identify deficiencies for correction. Pidherney's will rectify any such deficiencies as soon as possible.
Approvals	The owner/client will obtain all necessary approvals/permits prior to construction. Inconsistencies between conditions of different approvals/permits will be resolved by the Client prior to the start of construction.
Pre-job meeting	All involved parties (i.e., engineering, environmental, inspection personnel and contractors) will be involved in a pre-job meeting to review: <ul style="list-style-type: none"> • EPP requirements • Safety plans • Incident reporting and notification procedures • Key contacts
Timing constraint	All applicable fisheries and wildlife construction limitations, or other schedule constraints will be observed. If timelines dictate, a wildlife specialist will be engaged to ensure no birds are present during construction as per the Migratory Bird Act.
Working space	The boundaries of rights-of-way (ROW) and pre-approved temporary work spaces will be clearly staked prior to construction. All construction and related support activities will be limited to the approved ROW and work spaces. Only construction related activities will be allowed on the ROW.
Staging / laydown areas	These areas will be utilized for site office, construction job trailer, equipment storage and pipe storage. Areas will be chosen for positive drainage considerations and a minimum of 100 meters from any natural water body. Spill kit, first aid kit/supplies, porta potty, and drinking water will be at these locations. MSDS sheets are located in construction job trailer.
Waste disposal	Construction related wastes will be collected daily. Garbage containers will be used and emptied as required at an appropriate facility. Porta potties will be staged throughout locations as required, and a porta potty contractor will be maintaining the potty waste.
Equipment maintenance	Equipment will not be allowed on project sites unless it is in good working order (no leaks of fuel, oil, coolant or hydraulic fluid) and has been cleaned of mud and vegetation to aid in weed control.



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Use of public roads	Construction vehicle use on public roads in the project area will be in accordance with applicable provincial laws and road use agreements (e.g., load restrictions). Any roads are damaged by construction or activities will be repaired to pre-construction conditions.
Traffic accommodation strategy	Approved Traffic Accommodation Strategy (TAS) will be utilized for local traffic on county roads traveling through active construction areas including unloading of materials, site grading and clean up.
Spill prevention	Adequate spill prevention measures will be exercised. Spill kits will be at each construction location.
Public access	Public access to working areas will be controlled using signage, flag-people, obstacles or gates, as necessary. All County roads will be kept open to maintain unrestricted travel. Single lane traffic will be utilized as necessary and approved for construction. Snow fence/flagging to be placed around open ditch excavations at end of each day.
Historical resources	If a previously unidentified paleontological, archeological or historic site is encountered during construction, no further work will be undertaken in the immediate vicinity of the site until it is examined by a qualified paleontologist or archaeologist. Permission to proceed with construction will be given by the owner/client as per regulatory direction.
Wet construction	If overly muddy conditions are encountered (as determined by the environmental inspector) Pidherney's Safe Work Manual 15.9 Wet Construction Contingency Plan will be followed.
Clean-up	Construction material clean-up will occur immediately after backfilling and topsoil replacement.
Fire protection	Adequate firefighting equipment in accordance with applicable guidelines will be available on the project site during construction. Fire bans will be obeyed. No burning of clearing materials or debris will occur throughout the duration of this project.
Contingency plans	All necessary contingency plans (wet construction, emergency response, spill response and fire) will be in place, and construction personnel trained in their procedures, prior to construction commencement (Refer to Section 15 Pidherney's Safe Work Manual).
Notification	All relevant government personnel affected industries, businesses, municipalities, or Residents will be kept informed, in a timely fashion, of activities that may directly concern them.
Weed control during construction	Pidherney's will take all reasonable measures to ensure that, pursuant to the <i>Alberta Weed Control Act</i> , restricted weeds are eradicated, noxious weeds are controlled, and the spread of nuisance weeds is prevented. No import or export of topsoil will occur unless approved by the owner/client. Proper PPE must be worn when controlling vegetation including proper masks and gloves when dealing with chemicals.
Idling program	An idling program has been implemented that to prevent the emission of exhausted from trucks and equipment when not in use. Excessive and unnecessary idling is unacceptable. In cold temperatures it is recommended to plug in the equipment and vehicles.

Wildlife and Livestock Protection Measures

Harassment	Crew will not harass wildlife or livestock. Dogs will not be allowed on the project site. Firearms will not be allowed on the project site.
Food storage	Food and food wastes will be secured in appropriate facilities or vehicles.
Notification requirements	Any wildlife deaths, at risk species encountered, active raptor stick nests, den sites, lodges, or other wildlife issues arising during construction will be reported promptly to the owner/client.



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Fences and gates	Pidherney's will ensure all fences are braced prior to cutting and will comply with landowner requests to keep gates either shut or open, as the case may be, during construction.
	Temporary fences and gates will be installed as necessary to prevent livestock intrusion onto the right-of-way. Fences/gates affected by construction will be repaired/ restored.
Trails	Gaps will be left in windrows to allow livestock passage at identified and obvious livestock trails. Temporary ditch plugs will be installed at trench gaps for trails.
Assessment	If necessary, A qualified wildlife specialist or biologist directed the client/owner will assess subject lands prior to ground clearing.
Constraints	Timing restrictions and/or setback distances will apply for species and habitat covered under the federal <i>Migratory Birds Convention Act</i> , <i>Species at Risk Act</i> and provincial <i>Wildlife Act</i> and guidelines. Setback distances or timing restrictions will be determined in consultation with the owner/client. Any other mitigation requested by the Alberta ASRD Fish and Wildlife Officer for the project area will be implemented.
Monitoring	Pursuant to the <i>Wildlife Act</i> , monitoring during construction will be carried out where birds of prey (i.e., hawks and owls) occur close to construction activities.
Traffic	Traffic will yield to wildlife encountered on roadways and within the subject area.
Access	All construction personnel and equipment will stay within the surveyed right-of-way and work space at all times.

Hazardous Material Management and Spill Prevention

Labeling	All hazardous material stored on the project site will be labeled according to TDG and WHMIS regulations. MSDS sheets are available in job construction trailer.
Fuel storage	Any onsite fuel storage tanks (includes double walled) of capacity greater than 250 L will be located in an impermeable secondary containment area with a holding capacity equal to 125% of the capacity of the largest tank within the berm.
Liquid chemical/ hydrocarbon storage	Any liquid chemical or hydrocarbon will be held in metal storage tanks away from the storage trailer. Monthly inspections will be conducted by the site foreman and/or supervisor to ensure chemical containment is according to WHMIS standards.
Storage inspections	Monthly and continuous inspections will be conducted by the site foreman and/or supervisor to ensure chemical containment is being adhered to according to standards.
Spill containment	Spill kits are available within all the equipment, trucks and storage trailer in an event of a spill.
MSDS	An inventory of the MSDS materials will be recorded by the onsite foreman and kept in the MSDS binder. The MSDS list will also be recorded by the safety representative.
MSDS communication	A review of the MSDS chemical handling process will be reviewed by the worker before use, and during the safety meetings.
Refueling	All fuel tanks and vehicles on site will be marked, labeled and permitted as per provincial/federal regulations. Servicing and fueling of equipment will be restricted within 100 m of water bodies and wetland areas to stationary equipment involved in water crossing activities, such as directional drill rigs and water bypass pumps. All such stationary equipment will be located within an impermeable secondary containment area. All service vehicles used for refueling will have automatic shut-off valves and will be monitored by the operator at all times. Operators are to be stationed at both ends of the hose during fueling unless both ends are visible and readily accessible by one operator. Fuel remaining in the hose is to be returned to the storage tank.



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Leaks	All equipment or activities with the potential for leaks or accidental spills will be placed or conducted over an impervious tarp, outside the high-water mark of all water bodies or wetland areas. Stationary pumps for dewatering will operate in enviro tubs.
Waste storage and disposal	Used oil, filter and grease cartridges, oil containers and other equipment maintenance products will be collected, stored within an impermeable area and disposed of at an appropriate facility.
Spill response preparedness	To ensure adequate response capability in the event of a fuel spill, all fuel and service vehicles will carry a minimum of gloves, 1 sorbent boom, 1 garbage bag and 4 matt sorb pads. Drum spill kits will be at each drill location. Pidherney's will implement an Emergency Spill Response Plan (Refer to Pidherney's Safe Work Manual Section 15 Environmental) prior to the start of construction. The plan will include information on: individuals responsible for spill control and clean-up materials available on and offsite (with response time) for spill control and clean-up procedures to be employed for spill containment, clean-up and disposal.
Spill reporting	All fuel spills will be reported immediately to Pidherney's supervisor and Environmental Inspector who will then take the necessary steps to initiate clean-up and notify the necessary authorities and design build team members.
Spill response	In the event of a spill, the contractor will be required to suspend activity and make all resources available for spill containment and clean-up (Refer to Pidherney's Safe Work Manual Section 15 – Environmental). Traffic will be minimized in and around the spill site. Ground spills will be contained as quickly as feasible through: <ul style="list-style-type: none">• diking• vacuum trucks• excavation• the use of absorbent• other recovery techniques as appropriate. Spills on water will be contained through: <ul style="list-style-type: none">• the use of floating sorbent booms and pads or skimmers, if available the construction of straw bale filter dams.
Resumption of activity	Construction activity at the spill site will remain suspended until permission to resume activity has been given by Alberta Environment and confirmed by Pidherney's Management or Client.
Clean-up criteria	Contaminated areas are to be cleaned up to most recent Alberta Tier I Criteria. Contaminated materials are to be disposed of at an approved facility.

Garbage, Waste Management, and Disposal

Construction waste	Construction related wastes and garbage will be collected daily from work space. Garbage and recycling containers will be used and emptied as required and garbage and recycling disposed of at an appropriate facility. Ensure the site is left in a tidy and organized condition at the end of each day.
Hazardous waste	Used oil, filter and grease cartridges, oil containers and other equipment maintenance products will be collected, stored within an impermeable area and disposed of at an appropriate facility.
Waste management	Waste management will comply with regulatory requirements proposed by local regulations and international requirements and using Pidherney's ECO plan.
Wastewater Handling and Disposal	Wastewater will be determined if it is hazardous or non-hazardous prior to disposal. It will be handled, shipped, disposed of, according to sound environmental practices and regulatory requirements. Appropriate PPE shall be worn when handling and disposing of waste. Disposal of wastewater will be in coordination with the owner/client.
Test water disposal	Any water that becomes contaminated during testing will not be released but will be stored and either transported to the nearest municipal wastewater lagoon or



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	disposed of by another Alberta Environment approved method. Chlorinated water for testing will be treated to Alberta Environment Guidelines prior to disposal.
Hydrovac Waste	Hydrovac waste (drilling mud from directional drilling construction will be mixed off in excavated spoils or disposed at appropriate facility. Drill mud and fluids are non- hazardous materials.

Fire Prevention and Suppression

Smoking	Smoking in designated areas only.
Flammable/ Combustible	Dispose of cigarette butts, welding rods and other hot or burning material appropriately. Avoid parking vehicles in tall grass or stubble. Maintain the exhaust and engine systems of equipment in good working condition and clean undercarriages of accumulations of dry grass or oily material.

Surveying and Clearing

Surveying	Prior to clearing of the ROW, it will be surveyed and all ROW or approved extra work spaces and boundaries will be clearly staked.
Tree felling	All trees will be felled onto the ROW, and away from water features.
Mulching	Mulching of cleared material to existing topsoil will be performed.

Grading and Surface Material Salvage for Directional Drill Entry/Exit Locations

Stripping depth	Topsoil is to be stripped to color change unless specified otherwise on the alignment sheets. During soil stripping, equipment limitations may result in minor variations in stripping depth. If the owner/client's environmental inspector should decide that such variations are unacceptable, Pidherney's will be instructed to alter equipment or techniques.
Cultivated fields	Cultivated lands will be stripped over the width of the ROW and working space. Topsoil and upper subsoil will be stored separately (with a minimum 1 m spacing) parallel to ditch line on the work side of the ROW and the spoil will be placed on the other side.
Pasture	Topsoil will be stripped to required excavation width only (unless specified otherwise by the landowner) on pasture land with well-developed sod layer. Topsoil and upper subsoil from the ditch will be windrowed separately (with minimum 1m spacing) parallel to ditch line on the work side of the ROW and the spoil will be placed on the other side.
Wetlands	Wetland soils will be salvaged, stored separately from other soil stockpiles, and returned to the same wetland they were removed from. No wetland disturbance is planned.
Road ditches	Visible topsoil in ditches stripped to property side. No subsoil separated.
Wet construction	Work will be done in dry or frozen conditions to minimize rutting and soil compaction. If muddy conditions are encountered, construction will adhere to Pidherney's Wet Construction Contingency Plan (SWM Section 15, 15.9 Wet Construction Contingency Plan).
Open trench tie- in location	The length of open trench will be limited to 30 meters. The trench will remain open no longer than necessary.
Trench de-watering	If trench dewatering is required, water will be pumped onto a stable area at least 50 m from any water body. The mouth of the pump hose will be placed on polyethylene sheeting and directed at rocks, sandbags or other appropriate energy dissipation structures. Erosion controls (silt fence) will be installed to protect topsoil. Stationary pumps for dewatering will operate in enviro tubs.
Pipe emplacement	Prepared pipe strings will be lowered into prepared trenches according to the contract specifications and industry standards. Pipe will be pulled into bore hole.
Waste disposal	Any waste generated in the ROW will be collected and removed daily. Garbage containers will be used and emptied as required.

Grading and Surface Material Salvage for Open Cut Pipeline Installation

Stripping depth	Topsoil is to be stripped to color change unless specified otherwise on the alignment sheets. During soil stripping, equipment limitations may result in minor variations in stripping depth. If the Environmental Inspector should decide that such variations are unacceptable, Pidherney's will be instructed to alter equipment or techniques.
Cultivated fields	Cultivated lands will be stripped over the width of the ROW and working space. Topsoil and upper subsoil will be stored separately (with a minimum 1m spacing) parallel to ditch line on the work side of the ROW and the spoil will be placed on the other side.
Pasture	Topsoil will be stripped to required excavation width only (unless specified otherwise by the landowner) on pasture land with well-developed sod layer. Topsoil and upper subsoil from the ditch will be windrowed separately (with a minimum 1m spacing) parallel to ditch line on the work side of the ROW and the spoil will be placed on the other side.
Wetlands	Wetland soils will be salvaged, stored separately from other soil stockpiles, and returned to the same wetland they were removed from. No wetland disturbance is planned.
Road ditches	Visible topsoil in ditches stripped to property side. No subsoil separated. Spoil will be placed on road side.

Backfilling and Clean-up

Subsurface drainage	Subsurface drainage will be controlled as required prior to backfilling.
Backfilling	Trenches will be backfilled with the spoil material. Backfill will be compacted to minimize trench subsidence. Backfill will be completed in a timely fashion.
Re-contouring	The ROW will be re-contoured to restore the original grade and surface drainage channels except where recommended otherwise by the geotechnical consultant to ensure slope stability.
Top-soiling	Salvaged upper subsoil, followed by topsoil, will be spread evenly over the re-contoured ROW and ditches.
Drainage and erosion control	Surface drainage control berms and/or erosion control devices such as silt fence will be installed as required on steep, non-cultivated slopes. Ditch blocks will be utilized in ditches as identified.
Clean-up	All construction material and equipment will be removed, watercourses, ROW, trenches, culverts and back slopes restored, and fences and roads repaired as soon as feasible following the end of construction. Trench settlement will be monitored during warranty period and repaired in a timely manner.

16.5 PREVENTION OF CONTAMINATED WASTE SPILLS

As a carrier of contaminated material, it is essential that all material be transported in a safe manner. Any spill of contaminated material is regarded as an 'Incident' and must be reported to Pidherney's Emergency Response Coordinator. It is our responsibility as the transporter to make sure every load is secure before leaving the site and remains secure until it gets to its destination.

For us to accomplish this, we must keep the following in mind:

- 1) Employees will be provided training on spill prevention and response procedures.
- 2) All loads must be tarped; tarps should be working smoothly before you get on site.
- 3) End gates will be bolted to prevent accidental opening.
- 4) End gates lined with poly or dirt to prevent any liquids that separate during transport from leaking out.

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- 5) Proper manifest is filled out and is in the loaded truck carrying the material.
- 6) Chemical substances will be stored in proper containers to minimize the potential for a spill. Whenever possible chemicals will be stored in containers equipped with lids to prevent accidental spills.
- 7) Spill kits or spill response materials will be readily available for any anticipated spill.
- 8) Spill kits should be checked each day during your pre-trip to ensure the contents are adequate in the case you should need to use it. If you do use any of the contents make sure you replace any items used.
- 9) Proper placards are mounted on the truck and trailer for the material being transported.

No placards required for non-hazardous material.

If you have any concerns regarding the security of the load, the Head Office should be contacted (Clint Pidherney), to determine what corrective action needs to be taken.

Handling Contaminated Waste Spills

All hazardous or contaminated waste spills and releases, regardless of how slight, must be reported immediately.

Steps to Follow for Hazardous or Contaminated Waste Spill or Release

1. Contact the **Emergency Response Coordinator** (On Call Dispatcher) at 403-845-3072 or toll free at 800-558-9033. The Emergency Response Coordinator is experienced in the procedures and technical aspects of clean ups of contaminated material.
The Emergency Response Coordinator is responsible for the following:
 - Determine the nature of the emergency and assess the hazards to the public and the environment
 - Implement the plan for the clean up
 - Handle all communications with the owner of the material, government agencies, Ministry of the Environment, R.C.M.P. and the local Municipalities
 - Organize and coordinate the clean-up of the spill, appointing on site cleanup supervisor if required
 - Maintain proper documentation of the spill, providing a written report for the customer, government agencies and Pidherney's Safety Division.

**The following is the reportable quantities that you must report to CANUTEC
(613) 996-6666**

Class	Packing Group or Category	Quantity
1	II	Any quantity
2	Not applicable	Any quantity
3, 4, 5, 6.1 or 8	I or II	Any quantity
3, 4, 5, 6.1 or 8	III	30 L or 30 kg

Class	Packing Group or Category	Quantity
6.2	A or B	Any quantity
7	Not applicable	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substances Regulations, 2015"
9	II or III, or without packing group	30 L or 30 kg

2. Contact your acting supervisor. If any injuries are sustained, the supervisor must accompany injured employee to appropriate medical facility.
3. Contain the spill as best you can and use the provided spill kit until the clean-up team arrives. Keep vehicles from driving through the spill and prevent the spill from entering any water ways.

Spill kit contents: Barrel Spill Kit

	QUANTITY	DESCRIPTION
1)	1	Nylon Tote Bag
2)	100	16" x 20" Sorbent Pads
3)	15	3" x 48" Sorbent Socks
4)	6	Pair Nitrite Gloves
5)	10	Temporary Disposal Bags
6)	1	Roll of Caution Tape
7)	2	Bags of Floor Dry
8)	4	Pair Disposable Coveralls

Fill out **Incident Report** as accurately and with as much detail as possible. This form is to be submitted to the safety department as soon as possible or by noon the following day of the occurrence.

Ensure the safety of yourself and the public. Keep all unauthorized people at a safe distance. Avoid all ignition sources. Stay up wind of the spill. Evacuate the area if the fumes or contaminated material present an immediate danger to public safety.



Date: _____
Name: _____ Position Held: _____
Description of Change: _____

[illegible]

16.7 EROSION AND SEDIMENT CONTROL

During the job planning phase of construction, a large concern is erosion and sediment control. What kind of soil are we dealing with? How will our construction affect the soil and its erosion level? What measures of control can we use, based on the type(s) of soil in the area?

In order to answer these questions, all workers involved in construction must be trained in proper erosion and sediment controls for each soil type.

Silt Fence Installation / Maintenance

Silt fence or silt screen is a temporary sediment and erosion control device made of geo-textile fabric designed to intercept and slow the flow of sediment – laden runoff from small areas of disturbed soil.

The purpose of the silt fence is to prevent sediment carried by overland flow from leaving the disturbed site and entering rivers, creeks, wetlands, lakes and artificial drainage systems such as a storm drainage system, by intercepting water run-off and causing the deposition of sediment at the fence.

Inlet Protection

A storm inlet sediment barrier is constructed to minimize the amount of sediment entering a storm drain by ponding sediment laden runoff at the inlet.

- Maximizing inlet protection ponding volume maximizes the sediment trapped.
 - Sediment barriers around inlets must be especially durable.
 - Inlet protection generally provides limited sediment removal; it should not be the principle means of sediment control.
- 1) Stockpiles are located away from watercourses, environmentally sensitive areas, drainage course, ravines, and existing adjacent developments. The stockpiles should be stabilized against erosion immediately following stripping operations. Stabilization can include, but is not limited to, establishment of a cover crop or hydro seed matrix consisting of seed, fiber bond, and tackifier.
 - 2) All construction vehicles should leave the site at a designated point or points. Graveling or paving (where practical) of frequently used access roads will help ensure that minimal material, such as mud, is tracked off-site. The access road should consist of a bed of non-erodible material (i.e. gravel) of sufficient length to ensure that a minimal amount of material is tracked off-site onto adjacent municipal streets. Internal haul toads and/or track packs can also be designated and maintained to help reduce off-site tracking. In situations where mud tracking becomes a major problem, a high-pressure pump and hose installation may be used to provide a wash down facility for truck wheels.
 - 3) When sewers have been installed or are existing, measures should be undertaken to ensure sediment and debris does not get into the municipal sewer system. Both catch basins and manholes should be protected. This may be accomplished by sealing the openings, setting up sumps or weirs inside the structures or by providing appropriate inlet protection (filter fences, sediment traps, etc.). A temporary drainage system should be used with appropriate velocity controls and temporary storage areas for sediment control. This will ensure that sediment and debris do not get into the municipal sewer system and into the downstream waterways. Diligent efforts must be taken to ensure that the temporary drainage system does not flood adjacent properties.

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- 4) Where on-site or downstream detention facilities are provided, use can be made of a quantity control facility (through the placing of temporary weirs or check-dams) for sediment control during construction. **(Therefore, all temporary and permanent detention facilities must be constructed prior to the installation of any services on the site or the commencement of earth-moving operations).**
- 5) Dust control measures should be implemented to prevent wind transport of dust from disturbed soil surfaces. This may be accomplished in several ways. Vegetate, hydro seed, or mulch areas that won't receive vehicle traffic. Otherwise, construct windbreaks or screens. The site may also be sprinkled with water or a chemical dust suppressant to control dust; however, care must be taken to prevent the tracking of mud that may result. Otherwise, another effective tool is to reduce vehicle speeds to decrease the amount of dust stirred up.
- 6) All accumulated sediment and debris should be removed as required. Once construction activities are complete, all related materials and temporary structures should be removed and properly disposed of.

Dust Control

Water will be used as the primary method of dust control. Soil erosion by wind can be a significant problem and dust control will prevent wind transport of dust from disturbed soil surfaces onto roadways, drainage ways, and into watercourses.

Dust can be controlled by:

- Clearing vegetation only from areas that will be worked immediately.
- Vegetating or applying mulch to areas that won't receive vehicle traffic.
- Constructing wind breaks or wind screens.
- Sprinkling the site with water until the surface is wet. Care should be taken that this does not lead to tracking of mud onto nearby streets.
- Spraying exposed soil areas with a dust palliative. Used oil is prohibited as a dust suppressant.
- Stopping work in serious adverse weather conditions.
- Using and maintaining internal haul roads.

To protect adjacent roads and property owners:

- Lower speed limits to decrease dust stirred up from unpaved roads and lots.
- Add surface gravel to reduce the source of dust emission. The amount of fine particles should be limited to 10-20%.
- Use geo-textiles to increase the strength of new roads or roads undergoing construction.
- Encourage the use of internal haul roads and maintain as required.
- Restrict use by tracked vehicles and heavy trucks to prevent damage to road surface and base.
- Apply chemical dust suppressants.

Limitations

Silt fence should not be installed along areas where rocks or other hard surfaces will prevent uniform anchoring of fence posts and entrenching of the filter fabric. Silt fences are not suitable for areas where a large amount of concentrated run-off is likely to occur. Silt fence should not be installed across streams, ditches, or waterways where flows are concentrated.

Safe Work Practices

DO:

- ✓ Ensure proper sediment and erosion control methods are in place.
- ✓ Ensure sediment control devices are used at the entry and exit points of water runoff.
- ✓ Set up the control methods prior to commencement of work.
- ✓ Inspect control measures daily to ensure they are effective.
- ✓ Ensure length of fence is appropriate to the area.
- ✓ Please fabric side towards the disturbed site.
- ✓ Ensure wooden stakes are secure in the ground.
- ✓ Ensure stakes are no more than 2 metres apart.
- ✓ Ensure fence and stakes are connected together.
- ✓ Inspect fence daily.
- ✓ Ensure proper body techniques are used while installing fence – bend at knees, stretch when body feels tired.
- ✓ Use around stockpile.
- ✓ Always use storm inlet sediment barriers.
- ✓ Ensure sediment barriers are properly set up.
- ✓ Ensure proper PPE is being worn.

DO NOT:

- ✗ Install silt fence across streams, ditches, or waterways where flows are concentrated.
- ✗ Use damaged silt fence.
- ✗ Staple fence to trees.
- ✗ Allow soil to enter into water sources.

Safe Job Procedures for Silt Fence Installation / Maintenance:

- 1) Filter fabric can be purchased in a continuous roll and cut to the required length of the area to be protected.
- 2) Place wooden stakes into the ground and ensure the stakes are securely in the ground. Stakes should not be more than 2 metres apart and can be closer depending on the length of the silt fence.
- 3) Where installation with wooden stakes is difficult, such as hard or frozen ground, the use of steel stakes is recommended.
- 4) Place the fabric along the stakes with the fabric side facing the disturbed site.
- 5) Fasten the fence securely to the stakes using heavy-duty wire staples, or tie wire.
- 6) Excavate a trench where the bottom edge of the silt fence must be buried at least 15cm (6 inches) into the ground.
- 7) Backfill and compact the area to ensure effectiveness and to ensure that no gaps exist between the ground and the fabric.
- 8) The ends of the silt fence should be extended upslope (resemble an arc or horseshoe), this will prevent water from flowing around the ends of the fence.
- 9) Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

Maintenance

Regular inspections are done especially before and after each rainfall to ensure that the fence is intact and accomplishing the original intention of its establishment.

Silt fences that are damaged and have become unsuitable for the intended purpose are removed from site, disposed of and replaced with new silt fence barrier.

Soil that has accumulated to one-half the original height of the silt fence should be removed and properly disposed of. Soil removed during maintenance may be incorporated into earthworks on the site or disposed of at an appropriate location. Silt fence should remain in place until disturbed areas have been regenerated and permanently stabilized.

Removal

The removal must be undertaken in such a manner as to prevent the release of soil into any water source.

Site Dewatering / Pumping

Dewatering a job site may be required when there is water accumulating within the area and needs to be removed so the task / job can be completed.

The procedure and materials involved in dewatering the site are in place to prevent silt from entering the storm drains. Silt bags are an effective way for removing sediments.

Safe Work Practice

DO:

- ✓ Obtain a dewatering permit from the city or town inspector.
- ✓ Set up pumps properly.
- ✓ Connect hoses properly.
- ✓ Inspect hoses and pump for damage, leaks, rips, etc.
- ✓ Replace silt bags as required.
- ✓ Pump water into storm line.
- ✓ Verify and disclose the presence of any contaminants on site.
- ✓ Inspect the flow conditions and bag conditions daily.

DO NOT:

- ✗ Pump water into sanitary line.
- ✗ Pump without a permit.
- ✗ Use damaged or full bags.

Safe Job Procedure

- 1) Inform the town or city inspector that you require a dewatering permit.
- 2) Set up pump at location, making sure the pump is on stable, level ground. Place a wheel chock under wheels to prevent the pump from moving.
- 3) You may need to build a berm around the pump, depending on how close to the water the pump is.
- 4) Below the intake hose, dig a hole and place gravel around suction hose to minimize silt intake.
- 5) Place a silt bag on the end of the discharge hose. Ensure bag is on securely.
- 6) Inspector will inspect the pump set up and, if satisfied, will issue you a dewatering permit.
- 7) Inspect silt bag daily, when bag is full replace silt bag and dispose of used bag.

16.8 EMERGENCY SPILL PROCEDURES

In case of a spill, overflow or release fluid, do what is safely possible to control the situation, and then get help. Types of possible land spills are hydraulic oil, diesel, gasoline, and transmission fluid.

All dangerous goods incidents are to be reported regardless of location involving the transportation of TDG -regulated substances.

In Alberta, accidental **or** imminent releases of substances listed in the Transportation of Dangerous Goods (TDG) Regulations:

- a) That occurred during the handling, transport, or from failure of standardized containers, and
- b) That which exceeds the minimum reporting quantities in Table 1 must be (verbally) reported immediately to regulatory agencies and other persons specified below by the person who has possession of the dangerous goods at the time of the accidental spill or release:
- c) Local police **and** Provincial Authority (Alberta Transportation (CIC)): **1-800-272-9600**
- d) The reporting person's employer.
- e) The consignor of the dangerous goods.
- f) The owner, lessee, or charterer of the road vehicle.
- g) For a railway vehicle, CANUTEC at 1 (888) CAN-UTEC
- h) For Class 1 Explosives or a cylinder that has suffered a catastrophic failure, contact CANUTEC at 1 (888) CAN-UTEC.

Table 1 Summary of TDG Regulations- Quantities for Immediate Reporting

Class and Division	Reportable Quantities
TDG Class 1 (explosives)	Any quantity that could pose a danger to <i>public safety</i> ¹ or 50 kg
TDG Class 2 (compressed gas)	Any quantity that could pose a danger to <i>public safety</i> ¹ or any sustained release of 10 minutes or more
TDG Class 3 (flammable liquid)	= or > 200 litres
TDG Class 4 (flammable solid)	= or > 25 kg
TDG Class 5.1 (oxidizer)	= or > 50 kg or 50 litres
TDG Class 5.2 (organic peroxide)	= or > 1 kg or 1 litre
TDG Class 6.1 (poisonous substance)	= or > 5 kg or 5 litres
TDG Class 6.2 (infectious substance)	Any quantity that could pose a danger to <i>public safety</i> ¹
TDG Class 7 (radioactive materials)	Any quantity that could pose a danger to <i>public safety</i> ¹ ; or an emission level greater than the level established in section 20 of the <i>Packaging and Transport of Nuclear Substances Regulations</i> .
TDG Class 8 (corrosive substance)	= or > 5 kg or 5 litres
TDG Class 9 (Miscellaneous products, substances, organisms)	= or > 25 kg or 25 litres

Definitions

Accidental Release means, in relation to dangerous goods, an unplanned or accidental

- a) discharge, emission, explosion, outgassing or other escape of dangerous goods, or any component or compound evolving from dangerous goods; or
- b) emission of ionizing radiation that exceeds a level established under the “Nuclear Safety and Control Act”.

Imminent Accidental Release means, for dangerous goods in transport in a large means of containment, that there has been an incident and

- a) there is likely a need to remove or transfer all or a portion of the dangerous goods to another large means of containment;
- b) there is damage to the means of containment which, if not corrected, could result in an accidental release of the dangerous goods in a quantity or emission level that exceeds those set out in the table to subsection 8.1(1) of Part 8, Accidental Release and Imminent Accidental Release Report Requirements, or
- c) the large means of containment is lost in navigable waters.

Immediate Report Contents

The immediate (verbal) report of the TDG incident must include:

- a) Description of the dangerous goods, shipping name and UN number,
- b) Quantity of the dangerous goods,
 - In the means of containment before the incident, and
 - Known or suspected to have been released.
- c) Condition of the means of containment from which the dangerous goods were released,
- d) For accidental releases from a cylinder due to catastrophic failure – a description of the failure,
- e) Location of the incident,
- f) Number of injuries, including deaths, resulting from the incident, and
- g) Number of people evacuated from private residences, public areas, or public buildings

30-Day Follow-up Report Contents

Whenever an immediate (verbal) report is required, a 30-day follow-up (written) report is also required. This report must be made within 30 days of the release to the Director General of Transport of Dangerous Goods and the employer of the person making the immediate report. The report must contain the information specified in Part 8 of the Transportation of Dangerous Goods Regulation.

Stop the Flow

Shut down equipment.

- Close valves and pumps.
- Plug the hose.

Remove Ignition Source

Shut off vehicle.

- Do not allow tiger torches, vehicles, smoking or other sources of ignition near the area. Keep a fire extinguisher on hand but keep it a safe distance away from the potential ignition source (if a fire starts you must be able to access the extinguisher).

Contain the Spill

Spill kits located in job trailer and in foreman's truck.

- Dike around the spill to contain the material/liquid.
- Spread absorbent or place a spill blanket on the spill.
- Enlist the help of personnel onsite.
- Notify your supervisor and or the Owner as soon as possible.

Notification

Appropriate parties are to be notified of the spill.

- Pidherney's Project Manager
- Owner
- Regulatory Agencies
- Pidherney's Project Environmental Inspector
- Pidherney's Designated Safety Personnel

Procedure Review

The Owner will review the report and determine if enhancements to the procedure are required and implement and required changes.

16.9 WET CONSTRUCTION CONTINGENCY PLAN

1. Critical Indicators

Contingency measures shall be instituted upon the occurrence of any of the following conditions:

- excessive precipitation
- excessive rutting
- wheel slippage
- mud accumulation on tires
- puddle development through travelled or construction areas
- mud tracking from ROW down onto county roads

2. Contingency Measures

Any or all of the following measures will be engaged if any critical indicators are encountered:

- Postpone construction activities until the ground is dry.
- Restrict tired vehicles project site access, utilizing vehicles with low ground pressure (tracked or wide tires).
- Shut down construction activities until conditions change to eliminate critical indicators.
- Shutdown will be made in consultation with Pidherney's/Client's environmental inspector.

3. Preventative Measures

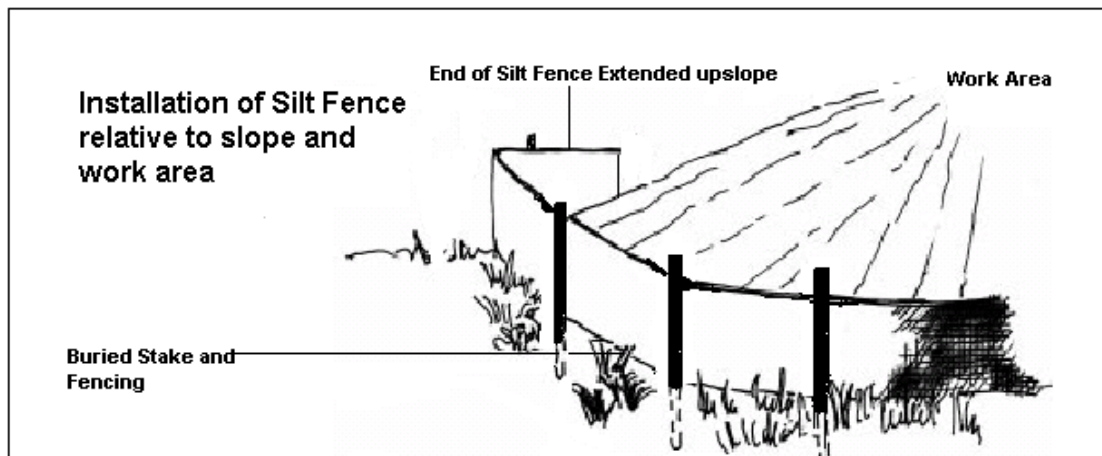
Blade back any ruts in the project site area when the ground is dry to reestablish a smooth work surface and prevent ponding of water.

4. Re-Start Up of Work

- Re-start up meeting to be held with Pidherney's/Client's environmental inspector when weather and site conditions allow project to proceed.
- Work to proceed with awareness of conditions to ensure site conditions are suitable and improving as calendar day's progress.

16.10 SILT FENCE INSTALLATION/MAINTENANCE

Silt fence or silt screen is a temporary sediment and erosion control device made of geotextile fabric designed to intercept and slow the flow of sediment – laden runoff from small areas of disturbed soil.



Purpose

The purpose of the silt fence is to prevent sediment carried by overland flow from leaving the disturbed site and entering rivers, creeks, wetlands, lakes and artificial drainage systems such as a storm drainage system, by intercepting water run-off and causing the deposition of sediment at the fence.

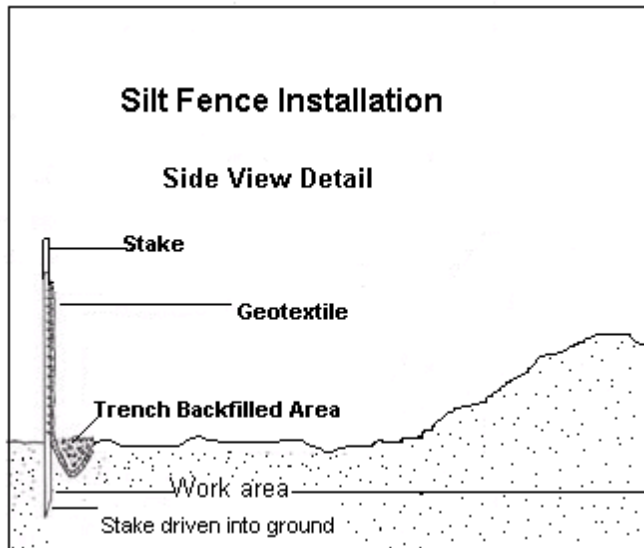
Limitation

Silt fences should not be installed along areas where rocks or other hard surfaces will prevent uniform anchoring of fence posts and entrenching of the filter fabric. Silt fences are not suitable for areas where large amount of concentrated run-off are likely to occur. Silt fences should not be installed across streams, ditches or waterways where flows are concentrated.

Installation

The filter fabric can be purchased in a continuous roll and cut to the required length of the area to be protected.

The fabric should be attached to wooden stakes that are to be driven securely into the ground with the fabric side towards the disturbed site. The silt fence must be fastened securely to the stakes using heavy-duty wire staples, or tie wire. Stakes should not be spaced more than 2 metres apart and can be closer depending on the length of the silt fence.



Where installation with wood stakes is difficult, such as when hard or frozen ground is encountered, the use of steel stakes is recommended. If metal stakes are used, attachment points are needed for fastening the geotextile fabric using wire ties.

A trench should be excavated in which the bottom edge of the silt fence must be buried at least 15 cm (6 inches) into the ground. It should then be backfilled and compacted to be effective, and to ensure that no gaps exist between the ground and the fabric. The ends of the silt fence should be extended upslope (to resemble an arc or horseshoe), to prevent water from flowing around the ends of the fence.

The height of the silt fence should not exceed one (1) meter above the surface of the ground and it should not be stapled to existing trees.

Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

Maintenance

Regular inspections should be done especially before and after each rainfall to ensure that the fence is intact and accomplishing the original intention of its establishment.

Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site, disposed of and replaced with a new silt fence barrier.

Soil that has accumulated to one-half the original height of the silt fence should be removed and properly disposed of. Soil removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.

Silt fence should remain in place until disturbed areas have been re-vegetated and permanently stabilized.

Removal

The removal must be undertaken in such a manner as to prevent the release of soil into any watercourse.

16.11 TEMPORARY WATER DIVERSION PERMIT PROCEDURE

Private Land Water Diversion Permit Procedure:

Purpose:

To obtain water for Earthworks or Road Construction (Civil and Oilfield Construction). Water used for haul roads, dust control, cleaning of equipment, hydrostatic testing, and construction compaction.

Steps to Follow:

1. Identify need in construction schedule.
2. Identify volume of water required and time period for water use.
3. Find proposed location where water would be loaded (slough, creek, river, dugout, lake, etc.)
4. Confirm access requirements (landowner, county, Alberta Transportation, municipality). Obtain signed consent using the "Land Use Agreement" form in section 9. Notification must be given to any landowners that use the water source within a 1-mile radius as per Alberta Environment Permit Guidance.
5. Contact Alberta Environment regional office closest to job location and request contact.
 - Environmental Information 1-780-427-3731
 - Environmental Regional Services Central Alberta 1-403-340-7052
 - Request contact for water permits and email address.
6. Inform the appropriate Pidherney's office member of the location and contact made with Alberta Environment to date.
 - a) Civil Operation's Manager
 - b) Oilfield Operation's Manager
 - c) Gravel Pit Water Permit Contact
7. Decision to be made between office contact and field supervisor as to who will email the application to Alberta Environment.
8. Email permit application to Alberta Environment at correct office location previously established. For central Alberta it is waterapprovals.reddeer@gov.ab.ca
9. Follow up with Alberta Environment for permit approval. Approvals will take a minimum of 7 days to process. Upon receipt of emailed copy of approval, email copy of permit to project consultant or owner.
10. Set up pump/loading area once approval is granted. Ensure that all requirements of the permit are met. Have a copy of the permit on site (laminated and attached to pump with plastic ties and/or at scale house), with the field supervisor, and in the Pidherney's office. Copy of permit is to be placed in water trucks that are hauling. All copies of the permit are to be laminated.
11. Ensure Spill Kit is available at pump location.
12. Pump water from approved location within the permit guidelines as applied for.
13. Notify Pidherney's office when water use is complete (if necessary, apply for extension of water permit).
14. Pidherney's office contact is responsible to notify Alberta Environment that water removal is complete. Notification to be sent to office where permit originated.
15. Alberta Environment forms relevant to this procedure can be found at <http://www.environment.alberta.ca/01189.html>.

16. If the diversion is for Hydrostatic testing, a permit is required and must be carried out in accordance with the *Code of Practice for the Temporary Diversion of Water for Hydrostatic Testing of Pipelines*.

Green Zone Water Diversion Permit Procedure:

Purpose: If water is required to be removed from an area that is crown land or in the “Green Zone”, and a permit is not already obtained, the following procedure must be followed:

Steps to Follow:

- 1) Identify need in construction schedule.
- 2) Identify volume of water required and time period for water use.
- 3) Find proposed location where water would be loaded (creek, river, slough, lake, etc.).
- 4) Confirm access requirements. Ensure that land is actually in “Green Zone” by contacting the Local County or municipality office.
- 5) Contact Alberta Environment regional office closest to job location and request contact.
 - a) Environmental information 1-780-427-3731
 - b) Environmental regional services Central Alberta 1-403-340-7052
 - c) Certain “Green Zone” areas do not require licenses up to 5000 m³. This cannot be assumed and must be clarified with Alberta Environment.
- 6) Contact Alberta Sustainable Resources Development (Forestry) at 1-780-944-0313 and request the *Applicable Surface Disposition* information for the water body, and permit requirement information.
- 7) Inform the appropriate Pidherney’s office member of the location and contact made with Alberta Environment and SRD.
 - a) Civil Operation’s Manager
 - b) Operation’s Manager
 - c) Gravel Pit Water Permit Contact
- 8) If a permit is required, follow procedure detailed in Section 1 Steps 7-16, adding any constraints required by the *Applicable Surface Disposition*.
- 9) If a permit is not required, conditions and time periods set out in the *Applicable Surface Disposition* will be reviewed with office and field staff working in that “Green Zone” and all requirements as laid out are to be followed.
- 10) If the diversion is for Hydrostatic testing, a permit is required and must be carried out in accordance with the *Code of Practice for the Temporary Diversion of Water for Hydrostatic Testing of Pipelines*.

Water Diversion Permits

The gravel pits below currently have temporary water diversion permits entitling removal of water up to the stated amount. If water is being used for hydrostatic testing, then the removal of water must be carried out in accordance with the Alberta Government’s *Code of Practice for the Temporary Diversion of Water for Hydrostatic Testing of Pipelines*. Prior to removing water from theses pits, contact with the Rocky office must be made at 403-845-3072.

Hill Gravel Pit – NW 18-039-07-W5 –60,000m³

Kraft Gravel Pit- SW 13-39-08 W5 – 20,000m³

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Physical Location of Permits:

- Attached to Stationary Pump with plastic ties In Water Truck(s)
- At Gravel Pit Scale (when applicable)
- In Field Supervisor's Truck (when applicable)
- Pidherney's RMH Office – 403-845-3072
- Pidherney's Blackfalds Office – 403-845-8959

Permit Locations and Volume Tracking Responsibility:

Once permits are in place, it is the responsibilities of the person who obtained the permit to ensure copies of the permit are physically located at the point of removal, in the water truck, and with the on-site supervisor prior to removing any water. If the copies of the permits are not in place, Araiea Pidherney is to be contacted by the on-site supervisor and a hard copy will be made available ASAP. IF PERMITS ARE NOT ON SITE, WATER CANNOT BE HAULED.

Water Removal Volume Tracking Procedure:

Purpose: Water truck load counts must be reported to the 'on site' supervisor and recorded on the "Pidherney's Temporary Water Diversion Monitoring Requirements" form in Section 8. An example of this form is attached. If no direct supervisor is available, the load count will be reported to the on-call dispatch. The form is to be emailed to the Head Office to be tallied and stored weekly. A current volume total must be kept for each location to ensure license requirements are met. In the event that a stationary pump is used with no trucks, the average volume per hour rate for the pump will be used and multiplied by the hours of use to obtain a daily volume. This volume will be added to the "Pidherney's Temporary Water Diversion Monitoring Requirements" form and emailed. If the used volume is going to surpass the licensed volume, the person who originally obtained the permit will contact the Alberta Environment contact at the phone number listed on the license and any alterations/updates made. The volumes will be kept with the permits in the Red Deer Civil Construction office for 1 year after the permit expiry date.

Steps to Follow:

- 1) On-site supervisor is to ensure permit has been applied for and received for the applicable water diversion location by contacting the Head office in Rocky at 403-845-3072. **No permit means water cannot be diverted.**
- 2) On-site supervisor is to ensure that there is a permit at the point of removal, in the water hauling device, and in his/her truck on site.
- 3) Any mitigation stated on the permit must be in place prior to removing water.
- 4) Once the criteria of the permit are met, removal of water may occur. Water truck load counts must be kept track of by the truck driver and given to the on-site supervisor at the end of each day. If a pump is being used to divert the water without trucks, the on-site supervisor must obtain the liters per minute rating for the pump and multiply it by the hours of operation of the pump to obtain a volume removed.
- 5) The date, applicable license/permit number, land location, location name, time span used and the daily volume of water diverted/removed from the water source is to be recorded on the "Pidherney's Temporary Water Diversion Monitoring Requirements" form by the on-site supervisor and emailed to Head Office in Rocky at the start of each new week.
- 6) A running total of water removed will be kept track of for each water source in the Rocky office and relayed to the Blackfalds Civil Construction office.

- 7) Weekly volume updates will be emailed back to the on-site supervisor to allow for field monitoring to occur as well.
- 8) These volume records will be kept for 1 year and located at the Pidherney's Red Deer Civil Construction office.

Sample Temporary Water Diversion Permit:

Attached is an example of a surface water temporary diversion permit obtained for removing water from a gravel pit.

Government of Alberta
Environment

**LICENCE TO TEMPORARILY DIVERT WATER
PROVINCE OF ALBERTA
WATER ACT, R.S.A. 2000, c.W-3, as amended**

LICENCE NO.: 00286212
FILE NO.: SW 13-039-08-W5
EFFECTIVE DATE: 2011/02/03
EXPIRY DATE: 2011/12/31
SOURCE OF WATER: Aquifer
POINT OF DIVERSION: SW 13-039-08-W5
POINT OF USE:
LICENSEE: PIDHERNEY'S - USE 'M. PIDHERNEY'
RESTRICTION: n/a

Pursuant to the Water Act, R.S.A. 2000, c.W-3, as amended, a licence for the temporary diversion of water is issued to the Licensee to:

divert and use up to 1,500 cubic metres of water from the source of water for the purpose of construction,

subject to the attached term and condition nos. 1 to 16, inclusive.

2011 02 03
Dated



Licence No. 00286212
File No. SW 13-039-08-W5
Page 2 of 3

DEFINITIONS

- 1 All definitions from the Act and the Regulations apply except where expressly defined in this licence.
- 2 In all parts of this licence:
 - (a) "Act" means the Water Act, RSA 2000, c. W-3, as amended;
 - (b) "Director" means an employee of the Government of Alberta designated as a Director under the Act;
 - (c) "Point of diversion" means the location where water is diverted from the source of water;
 - (d) "Point of use" means the location in which the diverted water is used by the Licensee for the licenced purpose; and
 - (e) "Regulations" means the regulations, as amended, enacted under the authority of the Act.

GENERAL

- 3 The Licensee shall immediately report to the Director by telephone any contravention of the terms and conditions of this licence at 780-422-4505.
- 4 The terms and conditions of this licence are severable. If any term or condition of this licence is held invalid, the application of such term or condition to other circumstances and the remainder of this licence shall not be affected thereby.
- 5 The Licensee shall not deposit or cause to be deposited any substance in, on or around the source of water that has or may have the potential to adversely affect the source of water.

DIVERSION OF WATER

- 6 This licence is appurtenant to the legal land location of the point of diversion described on page 1 of this licence.
- 7 The Licensee shall divert water only for the purpose described on page 1 of this licence.
- 8 The Licensee shall divert water only from the source of water described on page 1 of this licence.
- 9 The Licensee shall divert water only from the point of diversion described on page 1 of this licence.
- 10 The Licensee shall not divert or use more than the total number of cubic metres of water described on page 1 of this licence.
- 11 The Licensee shall divert water only to the point of use described on page 1 of this licence, if applicable.

IDL-2009-01



Pidherney's Temporary Water Diversion Monitoring Requirements" Form:

Pidherney's Land Use Agreement

Pidherney's Inc. (hereinafter referred to as Pidherney's), as contractor, enters into agreement with _____, as Landowner, in the County or Municipal District of _____ in the Province of Alberta.

Whereby I, the Landowner, do for myself, my heirs, executors, administrators and assigns, grant and assign unto lease representative of Pidherney's, the right by their servants, workmen, agents, or licensees to enter upon, use and occupy the following lands, namely:

_____.

For the purpose of _____.

Special Conditions (if any) _____ and take upon the lands for that purpose all necessary implements and machinery.

I hereby undertake and agree to deliver up possessions of the lands for the purpose herein expressed as and from (date) _____, 2015.

In witness whereof, I here unto subscribed my name this _____ day of _____, 2015.

Landowner

Witness

Address City/Town/Province Postal Code

Home Phone Cell Phone

FORMS - See Appendix B

- Temporary Water Diversion Monitoring Requirements Form
- Environmental Construction Operations Plan (ECO Plan)

SECTION 17: OPERATORS & EQUIPMENT

This program addresses any employees required to operate any powered mobile equipment owned by Pidherney's. These requirements are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

17.1 OPERATOR RESPONSIBILITIES

No worker is to operate powered mobile equipment unless the worker:

- a) is trained to safely operate the equipment,
- b) has demonstrated competency in operation of the equipment to a competent worker designated by Pidherney's,
- c) is familiar with the equipment's operating instructions, and
- d) is authorized by Pidherney's to operate the equipment.

If the worker in training operates the equipment under the direct supervision of a competent worker designated by Pidherney's, the operator of the powered mobile equipment must:

- a) report to Pidherney's any conditions affecting the safe operation of the equipment,
- b) operate the equipment safely,
- c) maintain full control of the equipment at all times,
- d) use the seat belts and other safety equipment in the equipment,
- e) ensure that passengers in the equipment use the seat belts and other safety equipment in the powered mobile equipment, and
- f) keep the cab, floor and deck of the powered mobile equipment free of materials, tools, or other objects that could interfere with the safe operation of the controls or create a tripping or other hazard to the operator or other occupants of the equipment.

Visual Inspection

Before operating powered mobile equipment, the operator must complete a visual inspection of the equipment and the surrounding area to ensure that the powered mobile equipment is in safe operating condition and that no worker, including the operator, is endangered when the equipment is started.

While powered mobile equipment is in operation, the operator must complete a visual inspection of the equipment and surrounding area at the intervals required by the manufacturer's specifications or, in the absence of manufacturer's specifications, Pidherney's operating procedures.

If the powered mobile equipment is continuously operated as part of an ongoing work operation, the operator may visually inspect the equipment during the work shift or work period as required by Pidherney's operating procedures.

A person must not start powered mobile equipment if a visual inspection has not been completed.

Visual inspections and equipment checks are to be completed prior to use and documented on Pidherney's Daily Maintenance Checklist.

SECTION 17: Operators & Equipment

17.2 DANGEROUS MOVEMENT

If the movement of a load or the cab, counterweight, or any other part of the powered mobile equipment creates a danger to workers:

- a) Workers are not permitted to enter the range of the moving load or part, and
- b) Operators must not move the load or the equipment if that worker is exposed to the danger.

If a worker could be caught between moving parts of the powered mobile equipment and another object:

- a) Workers are not at any time permitted to enter the area
- b) Workers are to maintain a buffer zone of at least 60 cm (2 ft.) between the powered mobile equipment and the object.

17.3 GROUND PERSONNEL AND PEDESTRIAN TRAFFIC

All work sites must have designated walkways that separate pedestrian traffic from areas where powered mobile equipment is operating. Workers are to utilize these designated walkways.

If it is not reasonably practicable to use designated walkways, the safe operating procedure and safe work practice regarding ground personnel must be followed to protect workers who enter areas where powered mobile equipment is operating.

17.4 STARTING ENGINES

Workers must not start the power unit of powered mobile equipment if the drive mechanisms and clutches of the equipment are engaged.

17.5 UNATTENDED EQUIPMENT

Workers must not leave the controls of powered mobile equipment unattended unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment. A person must not leave the controls of the powered mobile equipment unattended unless all suspended or elevated parts of the powered mobile equipment have either landed, been secured in place, or both.

17.6 LIGHTS

Powered mobile equipment operated during hours of darkness or when, due to insufficient light or unfavourable atmospheric conditions, workers and vehicles are not clearly discernible at a distance of at least 150 metres, will be equipped with lights that illuminate:

- a) the direction in which the equipment travels,
- b) the working area around the equipment, and
- c) the control panel of the equipment.

SECTION 17: Operators & Equipment

17.7 Windows & Windshields

Glazing that is used as part of the enclosure for a cab, canopy, or rollover protective structure on powered mobile equipment must be safety glass or another non-shattering material providing at least equivalent protection. Glazing on an enclosure of powered mobile equipment must be approved to current ANSI Standard ANSI/SAE Z26.1.

Broken or cracked glazing that obstructs an operator's view from the powered mobile equipment must be replaced as soon as possible. Windshields on powered mobile equipment are to be equipped with windshield wipers of sufficient size and capacity to clean matter that obstructs the operator's view, from the windshield.

17.8 Other Safety Equipment

All powered mobile equipment must have:

- a) a device within easy reach of the operator that permits the operator to stop, as quickly as possible, the power unit, draw works, transmission or any auxiliary equipment driven from the powered mobile equipment, including a power take off auger of digging, lifting or cutting equipment,
- b) an effective means of warning workers of the presence, general dimensions and movement of the equipment if presence, dimensions or movement may be a danger to a worker,
- c) seats or other installations sufficient to ensure the safety of the operator and other workers who may be in or on the equipment while it is in motion, and
- d) safety clips on the connecting pins if the powered mobile equipment is equipped with a trailer hitch.

17.9 Warning Signal

If the operator's view of the path of travel for the equipment is obstructed or cannot be seen directly or indirectly, the powered mobile equipment must have:

- a) an automatic audible warning device that
 - i. activates if the equipment controls are positioned to move the equipment in that direction, and
 - ii. is audible above the ambient noise level,

The operator must ensure that the operator and other workers are protected from injury before moving the equipment by:

- a) doing a visual inspection on foot of the area into which the equipment will move,
- b) following the directions of a traffic control or warning system, or
- c) getting directions from a worker (spotter) who:
 - i. has an unobstructed view of the area into which the equipment will move, and
 - ii. is stationed in a safe position in continuous view of the operator.

17.10 Bulkheads

Pidherney's will provide means to protect the operator of vehicles transporting equipment or materials that may shift during an emergency stop.

SECTION 17: Operators & Equipment

17.11 Guards and Screens

Powered mobile equipment must have a cab, screen, shield, grill, deflector, guard or otherwise as a means of protection for the operator if the hazard assessment indicates there is a significant possibility that the operator may be injured by flying or projecting objects.

17.12 Equipment with Rollover Protection

Pidherney's must ensure that a rollover protective structure (ROPS) complies with the current applicable requirements of:

- a) CSA Standard B352, *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines – Part 1: General Requirements*, and
- b) CSA Standard B352, *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines – Part 2: Testing Requirements for ROPS on Agricultural Tractors*, or
- c) CSA Standard B352, *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines – Part 3: Testing Requirements for ROPS on Construction, Earthmoving, Forestry, Industrial and Mining Machines*.

Pidherney's must ensure that any powered mobile equipment fitted with a rollover protective structure (ROPS) has seat belts for the operator and passengers that comply with current:

- a) SAE Standard J386, *Operator Restraint System for Off-Road Work Machines*, or
- b) SAE Information Report J2292, *Combination Pelvic/Upper Torso (Type 2) Operator Restraint Systems for Off-Road Work Machines*.

If the work process makes wearing the seat belts in the powered mobile equipment impracticable, Pidherney's may permit workers to wear shoulder belts or use bars, screens, or other restraining devices designed to prevent the operator or a passenger from being thrown out of the rollover protective structure.

17.13 Falling Objects Protective Structures

If a hazard assessment identifies that an operator of powered mobile equipment is exposed to falling objects, Pidherney's must ensure that the powered mobile equipment is equipped with a falling objects protective structure. A falling objects protective structure must comply with the appropriate requirements of the current standards:

- a) SAE Standard J167, *Overhead Protection for Agricultural Tractors – Test Procedures and Performance Requirements*,
- b) SAE Standard J/ISO 3449, *Earthmoving Machinery – Falling Object Protective Structures – Laboratory Tests and Performance Requirements*, or
- c) SAE Standard J1042, *Operator Protection for General Purpose Industrial Machines*.

Pidherney's, instead of using a falling objects protective structure that complies with the above requirements, may use equipment that is certified by a professional engineer as providing the equivalent or better protection.

FORMS - See Appendix B

- **Operator's Daily Maintenance Checklist**

Section 18 – TOPIC SPECIFIC

18.1 ASBESTOS AWARENESS PROGRAM

General

Asbestos is a naturally occurring mineral silicate that can be separated into flexible fibers. There are two main mineralogical classifications of asbestos; Serpentine and Amphibole asbestos. You can typically find asbestos in the following locations; building exteriors, flooring, ceilings, walls, service areas, structural, pipes, and in some other misc. areas.

There are two locations for the pipe that we come in contact with that have asbestos. The first are underground utility installations lines that contain asbestos inside the pipes, and the second set of pipes is located in plants and has asbestos in the insulation that surrounds the pipes. The type of pipes are as follows; steam and hot water heating supply and return lines, domestic water supply and drain lines, chilled waterlines, rain water and sanitary lines and gaskets in flanges and pipe joints. If you come across materials labeled ACM or PACM you must not disturb.

Friable and Non-friable

Non-friable products which may contain asbestos pose little danger of releasing airborne fibers unless they are cut, broken, sawn, ground, sanded or are in deteriorating condition.

Friable material easily crumbles with hand pressure; a less friable material cannot be crushed with hand pressure. The more friable the material, the more likely it is to release fibers into the air.

Health Hazards

Asbestos fibers must be inhaled to cause disease. Asbestos-related diseases are caused by asbestos fibers that are inhaled and settle in the lungs. There are several diseases caused or linked to asbestos exposure; Asbestosis, lung cancer, Pleural and Peritoneal Mesothelioma. Asbestos has also been linked to cancer of the larynx, trachea, stomach, colon and rectum.

Side effects for Asbestosis can take anywhere from 10 to 20 years to develop. Lung Cancer takes approximately 15 to 25 years to develop with as little exposure as 4 to 6 months. Pleural and Peritoneal Mesothelioma has a latency period ranging from 15 to 55 years for both long term and short-term exposures, with the individuals exposed as little as 2 months to 50 years.

Hazards

Included but not limited too;

- Airborne asbestos fibers
- Working around open excavations
- Working in trenches
- House keeping
- Potential for airborne fibers
- Slips, trips, falls
- Heat stress
- Site specific hazards refer to hazard assessment

Personal Protective Equipment

- NIOSH approved half mask air purifying respirator equipped with a P100 filter
- Disposable coveralls to prevent contamination of the workers clothing
- Steel Toe boots
- Gloves
- Hard Hat
- Safety Vest
- Disposable boot covers
- Additional PPE as required by Hazard Assessment

Required Equipment

- Polyethylene drop sheets having a minimum 6 mil thickness
- Appropriately labeled asbestos disposal bags of 6 mil thickness
- Water and rags
- Pump can to spray to wet the asbestos
- Duct tape
- Signs and warning tape
- Hand powered tools for abatement work
- Rags and water for clean up
- Fire extinguisher
- First Aid kit
- Ladder for access and egress into trench
- SKC AirChek personal pump
- SKC Filter, MCE, BestChek, .45 um, 25mm w/support and 5.0 um diffuser pads
- Bios Defender Primary Calibrator
- Cutting tool (Core Cut)

Pre-Job Planning

- 1) Submit a completed Asbestos Project Notification Form to OH&S 72 hours before workers may potentially be exposed to airborne fibers including set up operations.
- 2) All workers will be adequately trained in the hazards and proper procedures for working with ACM (asbestos containing materials) or PACM (presumed asbestos containing materials). Minimum training will include the following elements;
 - Asbestos and asbestos-containing materials;
 - Health effects associated with exposure;
 - Legislation;
 - Introduction to asbestos abatement methods;
 - Asbestos abatement procedures;
 - Personal protective equipment;
 - Air monitoring and analysis; and
 - Other health and safety hazards.
- 3) Review this procedure with all site personnel, conduct tool box meetings and conduct hazard assessment as well as review Pidherney's Respiratory Protective Equipment Program and Emergency Response Procedure. Make available for all site personnel the Alberta Asbestos Abatement Manual.
- 4) Confirm work falls under the category of Low Risk Abatement. If medium or high risk abatement is required contact sub-contractors who specialize in medium and high risk

SECTION 18: Topic Specific

abatement to perform the work or ensure workers have formal training in an asbestos abatement course and can provide proof of training on site.

- 5) All HEPA-filtered vacuum cleaners using dioctyl phthalate (DOP) are to be inspected and tested in accordance with procedures outlined in the Alberta Asbestos Abatement Manual.
- 6) Ensure access and egress ladders are free from damage, and are readily accessible at all times. Ensure the correct numbers of ladders are available as per OH&S code states. Refer to Pidherney's Ladder Safety Policy for inspection requirements.

NOTE

No person may eat, drink, smoke or chew gum or tobacco in the containment area. Workers must remove protective equipment and clothing and clean their hands before engaging in their activities.

Decontamination

- Indicate a designated decontamination zone. This area is to be equipped with such items as a bucket, water, soap, bags, wipes, etc. as needed.
- Clean up dust and waste by vacuuming with a HEPA filter fitted onto vacuum or by wet sweeping and damp mopping.
- Wet wipe of all the equipment that comes into direct contact with ACM.
- Wet the drop sheets and fold them into themselves to contain dust. Properly bag and dispose as asbestos waste.
- Disposable coveralls and boot covers to be properly bagged and disposed as asbestos waste. Non-disposable waste is to be laundered following proper procedures.
- To minimize the potential for asbestos exposure the outside of the NIOSH mask should be wiped down first, proceed with washing hands thoroughly with soap and water and then follow with removing the mask.
- Transport all asbestos containing materials to a licensed landfill capable of accepting asbestos as per government regulations. All transportation of asbestos containing materials will follow the "Transportation of Dangerous Goods Regulations". All shipments containing asbestos waste will have the proper shipping documents accompanied with each load, be labeled correctly, have the correct placards. Have the ERP readily available as well as the sufficient materials, PPE and equipment needed in the event that a spill should occur during transport.

Air Monitoring

Air Monitoring will take place continually to ensure that there are less than 0.01 fibers per cubic centimeter (f/cc). The air monitor that Pidherney's uses is the SKC AirChek 52 Personal Pump with the SKC Filter MCE BestChek .45 um, 25 mm with support and 5.0 um diffuser pads. We also have the Bios Defender Primary Calibrator Model 510M. Calibration will be done on the monitor prior to each use. Once work has been completed the monitor will be sent off for lab testing to confirm that there were less than 0.01 f/cc. These records will be kept in the office in a separate file for each worker.

Site Inspection

Conduct a visual inspection to ensure all visible containing asbestos debris have been properly cleaned up. If asbestos debris is observed to be present in the soil, the soil should be treated as asbestos-containing and may require disposal as asbestos waste.

Emergency Response Plan

An emergency response plan must be implemented prior to starting work and all workers involved must be aware of their responsibilities during an emergency and the evacuation plan.

Special considerations that should be taken are the following;

- Carbon monoxide poisoning (if supplied air is coming from a compressor powered by an internal combustion engine)
- Special Emergency procedures may be needed for injuries on workers with respirators on or for emergency personal needing to enter the site where asbestos is present.
- Fires (some of the PPE will melt easily, shrink, adhere to skin and drip as it burns)
- Ensure that you obtain the MSDS (Material Safety Data Sheet) for the type of Asbestos that you will be dealing with and implement special consideration for the product in the case of an emergency.

18.2 CHEMICAL, BIOLOGICAL AND HARMFUL SUBSTANCES

This Chemical, Biological & Harmful Substances Program provides detailed safety guidelines and instructions for receipt, use and storage of chemicals at our facility by employees and contractors. A written Program will be developed, implemented & maintained at each workplace.

Administrative Duties

The HSE Manager has overall responsibility for coordinating safety and health programs in this company. This individual has overall responsibility for the Chemical, Biological & Harmful Substances Program. The HSE Manager will review and update the program, as necessary. Copies of the written program may be obtained at head office.

Worker Exposure to Harmful Substances

Pidherney's will ensure that a worker's exposure to any substance listed in Schedule 1, Table 2 of OH&S legislation is kept as low as reasonably practicable and does not exceed its occupational exposure limit. If no occupational exposure limit is established for a harmful substance present at a work site, all reasonably practicable steps will be taken to keep each worker's exposure to that harmful substance as low as reasonably practicable.

If a worker is exposed to a substance listed in Schedule 1, Table 2, at a concentration that exceeds its 8-hour occupational exposure limit but is less than its 15-minute occupational exposure limit, Pidherney's will ensure that:

- a) each 15-minute period of exposure is followed by a period of at least 60 minutes during which the airborne concentration of the substance is at or below its 8-hour occupational exposure limit,
- b) the worker cannot be subjected to more than 4 of the 15-minute periods of exposure in a continuous 24-hour period, and
- c) the 8-hour occupational exposure limit cannot be exceeded.

A worker may not be exposed to a substance listed in Schedule 1, Table 2 at a concentration exceeding its ceiling limit at any time.

Listed below are some of the chemicals/substances employees may be exposed. This list is not all inclusive and other hazards may be present varying by jobsite location and work activity.

- Asbestos
- Benzene
- Cadmium
- Lead
- Hydrogen Sulfide
- Oils & Greases
- Compressed Gases
- Fuels
- Acids & Caustics
- Bloodborne Pathogens (result of injury)

These hazards may be encountered near or around the following locations/processes/equipment:

- Tanks
- Pits
- Piping
- Well Heads
- Storage & Containment Facilities

Potential Worker Exposure

If a worker may be exposed to a harmful substance at a work site, the health hazards associated with the exposure must be identified and the workers exposure must be assessed. Some of the most common health hazards associated with the above-referenced substances include but are not limited to:

Asbestos Specific (*refer to Pidherney's "Asbestos Awareness"*)

- a) Asbestosis: A chronic lung ailment caused by the buildup of scar tissue inside the lungs.
- b) Asbestosis can cause shortness of breath, permanent lung damage, and increases the risk of lung infections.
- c) 2- Mesothelioma: An asbestos caused cancer of the chest cavity lining or abdominal cavity.
- d) Other cancers: Cancer of the lung, esophagus, stomach, colon, and pancreas.

Bloodborne Pathogen Specific

- a) HIV infection
- b) Hepatitis B infection
- c) Hepatitis C infection

Multiples Substance Common Health Effects

- a) Burn
- b) Eye irritation
- c) Breathing difficulty
- d) Confusion
- e) Sleepiness
- f) Rapid pulse
- g) Loss of consciousness
- h) Anemia
- i) Damage to the nervous system
- j) Kidney Damage
- k) A rise in blood pressure
- l) Miscarriages and subtle abortions
- m) Disruption of nervous systems
- n) Brain damage
- o) Declined fertility of men through sperm damage
- p) Suppression of the immune system
- q) Death

Any worker who may be exposed to a harmful substance at a work site:

- a) Will be informed of the health hazards associated with exposure to that substance,
- b) Will be informed of measurements made of airborne concentrations of harmful substances at the work site, and
- c) Will be trained in procedures developed by the Company to minimize the worker's exposure to harmful substances and understands the procedures.

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A worker who is provided with training must use the procedures appropriately and apply the training.

Worker Decontamination

If a worker may be contaminated by a harmful substance at a work site, facilities, including showers will be provided. The worker also must remove the contamination before the worker leaves the work site.

Note: Some chemicals you work with may be gaseous and cannot be washed off (i.e. Nitrogen, H₂S, natural gas, etc.).

Emergency Baths, Showers, and Eye Wash Equipment

If a worker is present at a work site where chemicals harmful to the eyes or skin are used, Pidherney's will ensure that the worker has immediate access at the work site to emergency baths, showers, eye wash equipment or other equipment appropriate for the potential level of exposure.

Prohibited Activities

Workers must not eat, drink or smoke tobacco in a part of a worksite contaminated by a harmful substance.

Codes of Practice

- Employees trained in the safe handling practices of hazardous chemicals such as acids, caustics, and the like.
- Employees aware of the potential hazards involving various chemicals stored or used in the workplace--such as acids, bases, caustics, epoxies, and phenols.
- Employee exposure to chemicals is kept within acceptable levels.
- Eye wash fountains and safety showers provided in areas where corrosive chemicals are handled.
- All containers, such as vats and storage tanks labeled as to their contents-e.g. CAUSTICS".
- All employees required to use personal protective clothing and equipment when handling chemicals (i.e. gloves, eye protection, and respirators).
- Flammable or toxic chemicals kept in closed containers when not in use.
- Chemical piping systems clearly marked as to their content.
- Where corrosive liquids are frequently handled in open containers or drawn from storage vessels or pipelines, adequate means is readily available for neutralizing or disposing of spills or overflows properly and safely.
- Standard operating procedures have been established and are they being followed when cleaning up chemical spills.
- Where needed for emergency use, respirators are stored in a convenient, clean and sanitary location.
- Respirators intended for emergency use adequate for the various uses for which they may be needed.
- Employees prohibited from eating in areas where hazardous chemicals are present.
- Is personal protective equipment provided, used and maintained whenever necessary.
- There are written standard operating procedures for the selection and use of respirators where needed.
- Respirator protection program requires employees to be instructed on the correct usage and limitations of the respirators.

- The respirators NIOSH approved for this particular application.
- They are regularly inspected and cleaned sanitized and maintained.
- Hazardous substances are used in your processes require a medical or biological monitoring system in operation.
- Familiar with the Threshold Limit Values or Permissible Exposure Limits of airborne contaminants and physical agents used in your workplace.
- Control procedures have been instituted for hazardous materials, where appropriate, such as respirators, ventilation systems, handling practices, and the like.
- Whenever possible, hazardous substances are handled in properly designed and exhausted booths or similar locations.
- Use general dilution or local exhaust ventilation systems to control dusts, vapors, gases, fumes, smoke, solvents or mists which may be generated in your workplace.
- Ventilation equipment is provided for removal of contaminants from such operations as production grinding, buffing, spray painting, and/or vapor decreasing, and is it operating properly.
- If internal combustion engines are used, carbon monoxide is kept within acceptable levels.
- Vacuuming used, rather than blowing or sweeping dusts whenever possible for cleanup.
- Materials, which give off toxic asphyxiant, suffocating or anesthetic fumes, are stored in remote or isolated locations when not in use.

Training

Employees require competency training in chemical hazards, biological hazards and harmful substances. The training program used is WHMIS.

Storage of Harmful Substances

Any and all harmful substance used or stored at a work site:

- a) Will be clearly identified, or its container is clearly identified, and
- b) Will be used and stored in such a way that the use or storage is not a hazard to workers.

WHMIS guidelines must be adhered to when working with and/or storing harmful substances.

18.3 CONFINED AND RESTRICTED SPACES

Policy

As defined by Occupational Health and Safety, a confined space means, a restricted space which may become hazardous to a worker entering it because of:

- 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.

Every year there are many fatalities and injuries associated with confined space entry. These incidents could have been avoided had the personnel involved been properly trained, prepared, and tested in rescue techniques, and implemented this training when required. All personnel required to enter confined spaces will be trained, and no personnel shall enter a confined space without this mandatory training.

Regardless of the work to be done and the type of confined space, a thorough hazard assessment must be completed. Workers must be protected from drowning, engulfment or entrapment. All hazardous substances and hazardous energy shall be locked/tagged out prior to any entry by Pidherney's personnel.

It is Pidherney's policy that a Confined Space Checklist must be completed and Confined Space Entry Permit must be issued by the foreman or supervisor prior to any work being done. Any work to be performed in confined spaces must occur under the direction of a supervisor who is thoroughly familiar with any hazards that may be encountered. The supervisor must also have comprehensive knowledge of fire and accident prevention requirements, first aid and rescue procedures.

Atmospheric testing shall be completed prior to entry and periodically while Pidherney's personnel are within the confined space. If there is a potential for the atmosphere to change unpredictably, the atmosphere must be continuously monitored during the entry. The results of the testing shall be recorded on the entry permit along with the time of the tests and the name of the person doing the testing. If atmospheric testing identifies that a hazardous atmosphere exists, or is likely to exist in a confined space, the confined space shall be ventilated, purged or both before the worker enters the space. If such ventilation or purging is impractical or ineffective in eliminating the hazard, workers shall use supplied air respiratory protection. For flammable or explosive atmospheres, no workers shall enter or remain in a confined space if more than 10% of the lower explosive limit (LEL) of a flammable or explosive substance is present.

For every confined or restricted space entry, a competent worker (Safety Watch) must be present and in communication with the workers in the confined space. This Safety Watch shall be provided with a suitable system for summoning assistance in the event of an emergency. The Emergency Response Plan for the area shall consider the hazards posed by confined space entry, shall provide the emergency procedures to be followed, and shall ensure that rescue personnel and equipment are readily available to respond to a confined space emergency. If an effective rescue cannot be carried out, Pidherney's personnel shall not enter or remain in a confined space.

Any work to be performed in confined spaces will adhere to all Pidherney's Job Procedures and Safe Work Practices pertaining to the job.

Code of Practice

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Scope

Pidherney's confined space program will apply to all work done by employees and/or contractors on property belonging to the Pidherney's Trucking inclusive of procedures, equipment and installation/repair of Restricted Space & Confined Space Entry Systems.

Purpose

The purpose of this Code of Practice is to prevent injury due to Restricted Space & Confined Space work, comply with the requirements of the *Occupational Health and Safety Code of Alberta*, the relevant regulations and industry standards.

Description

The Confined Space Entry Program supports Pidherney's Inc. Environment, Health and Safety Policy and recognizes the potential confined space hazards that maybe encountered by our employees and contractors.

The Program allows for the following:

- Identification of locations or situations where Restricted Space & Confined Space Entry work is required as defined in Part 5, 44(2)(c) of the OH&S Code:
- Safe installation, inspection, maintenance, and repair of equipment and facilities by workers in restricted/confined spaces.
- An entry permit system to ensure that only authorized and trained personnel enter a confined space.
- Training and education of workers who supervise or perform work in a restricted/confined space.

Responsibilities and Training

Everyone involved in a confined space entry project has assigned responsibilities and is required to complete confined space entry and rescue training. This section outlines the responsibilities and training requirements of each individual involved in a project.

Administrator

- Pidherney's Safety Department is responsible to update the Confined Space Entry Program to conform to current legislative requirements.
- Ensure compliance with standards set forth in the program by periodic inspection of entry sites. Where unsafe conditions are present, stop work.
- Assisting Managers and Supervisors/Foremen with;
 - Providing training as set forth in the program
 - Identification of confined spaces
 - Develop a COP for site specific confined spaces as required using Pidherney's "Non-Routine CS COP Hazard Assessment and Work Sheet Form", Appendix A, when required by non-routine activities.
- Perform an annual review covering all entries performed to ensure employees participating in entry operation are protected from the hazards and place controls if necessary.
- Ensure all Supervisors/Foremen, workers, and Contractors who are to work in a confined space are adequately trained to do so.
- Maintain a Records file of all confined space documents including completed entry permits for a minimum of three years.

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Project Managers

- Inform Pidherney's Designated Safety Personnel of upcoming non-routine activities.
- Work in conjunction with Pidherney's Designated Safety Personnel to develop a COP for non-routine Confined Space Entries.

Supervisors/Foremen

- Be familiar with the contents of this Code of Practice.
- Competent and trained in Restricted/Confined Space Entry
- Ensure employees and/or contractors under their supervision are competent to complete the task in accordance with this program.
- Inform worker/contractor of the hazards associated with the confined space.
- Ensure that the required atmospheric tests are performed at the confined space and results recorded on the permit prior to entry authorization.
- Conduct pre-entry meetings.
- Authorize entry by signing the entry authorization space on the permit after all conditions for a safe entry has been met.
- Cancel the permit when a condition that is not allowed under the entry permit arises in or near the confined space.
- Monitor employee compliance with this program
- Ensure the confined space entry is performed in accordance with the confined space entry permit.
- Submit all completed documents including entry permit to their designated safety personnel.

Employees

- Must be trained to perform confined space entry and rescue.
- Comply with the requirements of this Code of Practice
- Perform all entries in accordance with the Confined Space Entry Permit
- Must follow Pidherney's Confined Space Entry Code of Practice for all entries including third-party controlled sites e.g. General contractor construction sites, municipal sites, or other sites not on Pidherney's property but work is conducted by Pidherney employees.

Contractor's/ Visitors

Provide a copy of their Confined Space Permit along with proof of training for review by the safety department where Pidherney's requirements exceed those of the Contractors, Pidherney's requirements shall take precedence.

Inventory and Identification of Restricted and Confined Spaces

Confined space/restricted space at Pidherney's may include vaults, manholes, and pipes. Confined spaces will be labeled, where practical, to warn against unauthorized entry and work, while work is taking place.

"Restricted **Space**" means:

1. an enclosed or partially enclosed space,
2. not designed or intended for continuous human occupancy,
3. that has a restricted, limited or impeded means of entry or exit because of its construction;

“Confined **Space**” means a restricted space which may become hazardous to a worker entering it because of:

- 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;

It may be determined that a space presents no real danger for workers. However, until the space has been evaluated and tested, it is assumed to be potentially dangerous. Once a space has been evaluated, it will be determined, by the Supervisor/Foreman, whether the space is a confined space or a restricted space.

There may be some hazards that will always be present in any given space. However, there will be situations where hazards are introduced to the space as a result of the work being conducted. This may include activities such as hot work, painting, coating, using solvents, sandblasting, etc. This document will provide **general procedures** for entry, work and emergency in a confined space. **Specific procedures** may have to be developed as they relate to the work activities described above. See Appendix C “Flow Chart – Identifying a Confined Space”.

Hazard Identification and Assessment

For each space, or group of similar spaces, a competent person will identify existing and potential hazards. In addition every task undertaken by a worker may have inherent risks associated with it. Pidherney's will ensure that workers who may be affected by the hazards are involved in the hazard assessment process. Workers will also be informed of the hazards and of the methods used to control or eliminate the hazards.

For all tasks involving a confined space entry, a confined space permit shall be prepared by a competent person to ensure that the risk of working in a confined space is minimized, or if at all possible, eliminated.

Once a task is identified as involving a confined space, the first thing to be determined is:

Does the Confined Space have to be entered to complete the task? Can the task be completed from outside the space?

Examples of completing the task without entering would be inspection with a remote camera or power washing from the outside.

The risks associated with the work still apply, as simply opening the access to the space may expose a worker to atmospheric hazards or introducing other objects/substances may create the hazard such as disturbing sludge or a chemical reaction.

Confined Space Hazards are placed into three categories as follows:

Atmospheric

Responsible for 90% of worker injuries or death in Confined Spaces. They are particularly dangerous because they most often cannot be detected by the human senses.

Oxygen-Deficient Atmospheres

The normal atmosphere is composed of approximately 21% oxygen. An atmosphere containing less than 19.5% oxygen is considered oxygen-deficient. The oxygen level inside a confined space may be decreased as the result of either consumption or displacement.

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There are a number of processes that consume oxygen in a confined space. Oxygen is consumed during combustion of flammable materials, as in welding, torch cutting, or brazing. A more subtle consumption of oxygen occurs during bacterial action, as in the fermentation process. Oxygen can also be consumed during chemical reactions such as in the formation of rust on the exposed surfaces. The number of people working in a confined space and the amount of physical activity can influence oxygen consumption. Other gases such as carbon monoxide, carbon dioxide, methane, and welding shield gases can also reduce oxygen levels by displacing oxygen.

More than 23.5% O ₂	Oxygen Enriched
Approximately 20.8% O ₂	Normal Air
Less than 19.5% O ₂	Oxygen Deficient
16.0-12.0% O ₂	Loss of Peripheral vision, accelerated heart rate
12.0-10% O ₂	Faulty judgment, poor muscle coordination
10.0-6.0% O ₂	Nausea, unconsciousness
6.0% or less O ₂	Spasmodic breathing, convulsion, death

Oxygen Gas Testing

- Oxygen levels must be tested before entering a confined space. A competent tester must test the oxygen level approved gas monitor.
- Oxygen levels below 19.5% (oxygen deficient) must be ventilated until the levels exceed 19.5%.
- If this is not possible a supplied air respirator must be worn.
- No hot work may be performed if the oxygen levels exceed 23%.

Flammable Atmosphere

Flammable atmospheres are generally the result of flammable gas, vapors, and dust mixed in certain concentrations with air, or an oxygen-enriched atmosphere containing an oxygen concentration greater than 23%. For a fire or an explosion to occur, three components must be present at the same time: a fuel (such as flammable gas), oxygen, and a source of heat (spark or flame). The specific mixture of fuel and oxygen that will ignite or explode varies with each flammable gas. At any point if one of the three components is in excess the likelihood of a fire or explosion will increase.

Combustible gases or vapors can accumulate within a confined space when there is inadequate ventilation. The critical point is defined as the range between the Lower Flammable Limit (LFL) and the Upper Flammable Limit (UFL). If the gas/oxygen mixture is below the LFL for that gas, a fire or explosion cannot occur. The mixture is "too lean" to burn. A fire or explosion will not occur if the gas/oxygen mixture is above the UFL because the mixture is "too rich" to burn.

Flammable gas concentration rises above the UFL, the atmosphere is not considered safe. A high gas concentration can be diluted under the flammable range by the introduction of air from outside the confined space.

Flammable Gas Testing

Flammable gas testing is required whenever there is a possibility of a flammable gas leak. When entering confined spaces, you must conduct atmospheric tests near the bottom, in the middle and near the top of all confined spaces to ensure concentrations are within the acceptable range. A competent tester must test continuously when there is: hot work near or around piping containing flammable gases, flammable chemicals in containers, or flammable chemicals being used within an area.

Toxic Atmosphere

Toxic Atmospheres may be present within a confined space as the result of one or more of the following:

- When a product is stored or used during a process in a confined space, the product can give off toxic gasses, vapors, etc. into the atmosphere.
- Toxic atmospheres can be generated as the result of work being conducted inside the confined space, such as, welding or brazing with metals capable of producing toxic fumes, painting, scraping, sanding, cleaning, etc.
- Toxic gasses produced by processes near the confined space may enter and accumulate in the confined space. Examples include parking lots, and other machinery running near confined spaces.

Toxic Gas or Vapors

Toxic gases or vapors could include:

- Carbon monoxide or carbon dioxide (colorless and odorless)
- Solvents (flammable and narcotic)
- Acids and caustic (corrosive)
- Paints, sealants, preservatives (could be flammable, narcotic and/or toxic)

If a toxic substance is suspected to be in the confined space during testing by the tending worker, the manager/supervisor of the area must be contacted to assist in obtaining a Material Safety Data Sheet or other chemical information to determine the exposure potential and the type of protective equipment required to safely conduct the work.

Toxic Gas Testing

The Safety Department can provide information on which gas-measuring instrument would be required for a given situation.

General Atmospheric Testing

Instrument Calibration

A competent worker must calibrate instruments. Gas monitors must be zeroed in a clean air atmosphere. The instrument must be calibrated on a regular schedule and recorded into a calibration and maintenance log book.

Maintenance of Instrumentation

Gas monitoring equipment must be kept in a ready condition. A competent person will check the gas sensors each time the monitor is calibrated and keep record of their condition.

Atmospheric testing procedure

Trained entrants, safety watch or supervisors/foremen must perform atmospheric testing prior to entering.

- 1) Determine the type of atmospheric monitoring that will be needed. Can processes taking place inside or near the confined space generate air contaminants? Can the air be tested at all depths prior to entry? Does the space have mechanical ventilation and is it operating?
- 2) The testing required will be performed using calibrated test instruments appropriate for the atmosphere being tested and the instruments are used in accordance with the manufacturer's specifications. If needed, obtain accessory devices such as remote sampling pumps and extra lengths of tubing. You may need a spare set of batteries if the instrument will be on continuously for several hours. Ensure you are competent in the use of instruments that you are required to use.

Testing equipment must be bump tested, that is exposed to known quantity of test gas, daily or prior to use to ensure it is functioning properly. The safety department will keep logs of calibration for Atmospheric Testing equipment. **Note: Pidherney's Bump Test Procedure is to be followed when bump testing company owned monitors.**

Note for Contractors: Air monitoring equipment is considered a "tool" to be used when entering a confined space. It is the responsibility of the contractor to provide any of the necessary confined space entry equipment required for the entry.

- 3) Turn on the calibrated instrument in an open area (uncontaminated air) and allow it to perform its self- diagnostics. Ensure there is ample reserve battery power. Make certain that everyone who will use or rely on the instrument understands its display and audible alert(s). A bump test is to be conducted daily to ensure all functions are operating normally, if the bump test fails, contact the safety department and obtain another instrument.
- 4) In order to assess "worst-case" conditions, it is best to test before ventilating or otherwise disturbing the air within the space. Record the results on the entry permit. Ensure entrants have the opportunity to witness the testing and discuss the safety implications of the results with all those affected.
- 5) Test air at 3 or more elevations: top, mid-point, and bottom. Initial testing should be done from outside the confined space by inserting a sample probe and/or portable gas detection device at appropriately selected access holes, nozzles and openings. Because contaminants can settle at different levels, each part of the confined space should be tested – side to side and top to bottom (see Figure 1).

For example, some gases (such as hydrogen sulfide) are heavier than air and in unventilated areas will settle to the bottom of the space, while other gases (such as methane) are lighter than air and will collect at the top of the space. Testing should be carried out on a sufficient number of points to accurately reflect areas of the space that is likely to be accessed. Lighter gases may be vented into the breathing zone of the person conducting the tests. Some gases may be dissolved in liquids and released when the liquid is disturbed or a crust over the liquid is broken and it may therefore be necessary to agitate liquids before monitoring.

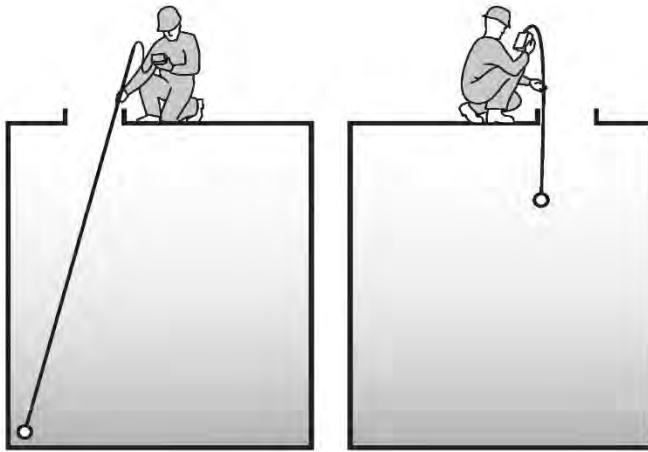


Figure 1: *Atmospheric testing of remote regions and different levels within the confined space.*

- 6) The order of testing is as follows: test for oxygen first because most combustible gas meters are oxygen dependent and will not provide reliable readings in an oxygen deficient atmosphere. Combustible gases are tested for next because the threat of fire or explosion is both more immediate and more life threatening, in most cases, than exposure to toxic gases and vapors. If tests for toxic gases and vapors are necessary, they are performed last.

Physical Hazards

Usually simple to recognize and easier to deal with than Atmospheric Hazards. Some examples of physical Hazards are:

- Physical layout of the Confined Space – small openings, piping, or other obstacles to movement within the space
- Falls from Height/ Top entry
- Moving Parts – machinery, fans, belts, etc.
- Corrosive Materials- protection for a workers skin, eyes and respiratory system required.
- Stored Energy – must be secured or released such as batteries, capacitors, live wires, compressed air, hydraulics, springs, and gravity.
- Floor Surface – poor housekeeping, slippery surfaces, slips, trips and falls
- Engulfment – a worker can be trapped, buried or drowned by liquids, or finely divided solids (soil, grain, cement, gravel). This is the number two cause of death in Confined Spaces.
- Biological Effect- Mildew Molds, bacteria, viruses, insects and animals.
- Temperature – High temperatures resulting in heatstroke, cramps, heat exhaustion. Fans, cooling vests and drinking water may be necessary. Extreme and or prolonged exposure to cold resulting in hypothermia, frost bite and/or impaired movement and dexterity.
- Radiation

Other Hazards

Some Hazards do not necessarily fit into the categories of Atmospheric and/or Physical but must still be eliminated or controlled to prevent injury or death.

- Limited Visibility - Workers rely primarily on their vision, if visibility is compromised they may become disoriented and /or overlook hazards.

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- Noise Levels - Excessive noise levels can not only be damaging in and of themselves, but may distract, disorient and/or effect communication. By the nature of the physical characteristics of a confined space; noise is often amplified.
- Changing Conditions - Conditions may change over time or rapidly after hazards other hazards have been identified and controlled. Workers must be aware of their work environment. Examples of changing conditions are rain/runoff filling a manhole or causing slippery conditions. Welding and grinding causing toxic fumes or oxygen consumption. A worker consuming available oxygen in an unventilated space.

Additional Considerations

- Claustrophobia - this psychological phenomenon is common and potentially life threatening for both the person affected and other workers that may be in the space. A worker suffering from Claustrophobia may have a total loss of control or may act/react irrationally/unpredictably.
- **A Confined Space Entry with real Hazards is not the time to find out you or a co-worker is claustrophobic!**
- Physical Fitness/ Condition - is/are the workers physically able to perform the work? Simply moving about a Confined Space may be a strenuous activity.
- Medical Condition- Temperature, humidity, exertion, claustrophobia, etc. may affect existing medical condition.
- Fatigue- **A worker suffering from Fatigue should not enter a Confined Space.** Fatigue results in impairment of faculties.

Controlling Confined Space Hazards

Preventing Unauthorized Entry

All employees and contractors must be made aware of confined spaces through training, signage and/or instruction provided by Pidherney's.

Placement of Warning Signs

If the confined space will be left open for any length of time, warning signs and barriers will be required.

The Confined Space Entry Permit

When entering a confined space a permit must be completed by the confined space safety watch and authorized by the supervisor/foreman prior to entry.

Note Restricted Space: Restricted space entries do not require a permit. The Safety Watch must be in communication with the workers and the emergency response plan must be documented on the hazard assessment for each restricted space entry.

A permit must not be authorized until all applicable conditions of the permit have been met. The permit to be used by Pidherney's personnel and contractors can be found in Appendix B.

A worker has entered a confined space when the breathing Zone crosses the plane of a **CONFINED SPACE.**

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A confined space permit sets out the work to be done and the precautions to be taken. It functions as a safety checklist to make sure nothing is overlooked. The confined space entry permit must:

- a) list the name of each worker who enters the confined space and the reason for their entry,
- b) identify the Safety Watch
- c) provide the location of the confined space,
- d) specify the time period for which the entry permit is valid,
- e) take into account the work being done in the confined space, and therefore the safety precautions that must be taken, and
- f) take into account the requirements of this Code or Practice for entering, being in and leaving the confined space.

The completed permit must be readily available and posted at the work site. If multiple entry locations are involved a copy of the permit must be posted at each entry point.

The time frame of the permit is based on the estimated time to complete the task and may cover several shifts. A Permit is considered to expire prior to the stated expiry time if one of the following occurs:

- a) the confined space is returned to service,
- b) the continuity of responsible supervision for the confined space is broken, or
- c) the task or project is interrupted for a significant time because of an emergency that affects the confined space, e.g. an incident, rescue or a breakdown of engineering control equipment.

Once a Permit has expired, a new one must be completed prior to further entries into the space.

If a Hazard Assessment of a representative sample of identical confined spaces is performed, a single entry permit can be used for these and additional identical confined spaces. The permit must be revised to include the location(s) of the spaces being entered as well as the period the permit will be valid for.

A new permit must be completed if there is evidence to indicate it may no longer be valid such as:

- Change in the scope of work
- Conditions change
- Any other hazard is/may be present not included in the original permit

Ventilation and Purging a Confined Space

If toxic gases/vapors, combustible gases/vapors, oxygen deficiency/enrichment, or any other contaminant is discovered, the confined space must be ventilated or purged then retested before any entry is permitted. When ventilation cannot be accomplished, workers must use other precautions such as personal protection if entry is required for emergency situations.

Purging means the initial displacement of hazardous gases and vapors by air, steam or an inert gas forced deep into the space. Inert gases such as nitrogen, carbon dioxide and argon are frequently used to purge spaces of flammable atmospheres, while steam and air are used to remove toxic air contaminants.

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Ventilating is the process of continuously moving fresh air through the space. Ventilating helps maintain an adequate level of oxygen in the space, it dilutes or removes toxic air contaminants that may be found or generated in the space and it also improves comfort levels by controlling temperature, humidity and nuisance odors.

- **Exhaust ventilation** draws contaminated air out of an area.
- **Supply Ventilation** blows fresh air into the confined space. It is best used to provide fresh air for the occupants and to control low concentrations of materials that are not highly toxic.

Some additional tips for ventilating a space safely:

- 1) With either general or local ventilation, always ventilate with fresh air, never with pure oxygen.
- 2) Generally, drawing air out of the space (i.e. exhaust ventilation) is better when the atmosphere could be flammable or toxic.
- 3) All electrical equipment should be grounded.
- 4) Ventilation equipment should be electrically bonded to the confined space.
- 5) Ensure that the intake for the air supply is located far away from any flammable or toxic materials.
- 6) Locate the exhaust outlet so that contaminants won't be drawn back into the confined space.
- 7) Place the outlet where air currents will disperse the exhaust quickly, without endangering nearby people.
- 8) If the exhaust could be flammable, remove all ignition sources from the area.

Note: If mechanical ventilation is to be used, it must be classified as Class I, Division 1 (Explosion proof) to prevent possible fires or explosions.

If steam or water is to be used, all wastewater must be handled according to Alberta Environmental Regulations. Contact Pidherney's Safety Department for more information.

Inerting a Confined Space

Inerting means the introduction of an inert (un- reactive) gas such as nitrogen or carbon dioxide into a confined space to completely displace all oxygen. For a flammable mixture to burn or explode, a source of oxygen and a source of ignition are required. Inerting is a technique that is used to remove air and the oxygen that it contains. This creates an oxygen deficient atmosphere and workers who enter the space must be properly trained and equipped with Self Contained Breathing Apparatus (SCBA), self-contained oxygen generating apparatus or Supplied Air Breathing Apparatus (SABA) with an emergency escape bottle. Care must be taken to ensure that the atmosphere remains inerted while workers are within the confined space. To ensure an additional level of safety, all ignition sources must be controlled so that they cannot trigger a fire or explosion. See Part 10 of the OH&S Code for requirements dealing with fire and explosion hazards.

Cleaning a Confined Space

If chemical cleaners are to be used, the MSDS for the chemical should be consulted prior to use. When introducing a chemical into a confined space, the compatibility of that chemical with the contents of the confined space must be checked. For example, cleaning with chlorine based cleanser can release poisonous chlorine gas.

Note: All wastewater must be handled according to Alberta Environmental Regulations. Contact Pidherney's Safety Department for more information.

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Control of Hazardous Energy (Lock out/Tag out)

Pidherney's will ensure that workers within a confined space are protected against the release of hazardous substances or energy that could harm them. Workers will not enter a confined space unless adequate precautions are in place to protect a worker from drowning, engulfment or entrapment.

Uncontrolled energy and hazardous substances must be prevented from creating a hazard for workers.

Examples of this are:

- Stored Energy
- Electrical
- Gravity
- Pressure
- Control measures may include:
 - Blanking
 - Blinding
 - Double Block and Bleed
 - Mis-aligning or removing a section of lines, pipes or ducts
 - De-energizing
 - Locking out *all* sources of Energy

Refer to Pidherney's "Lockout/Tagout. Procedure"

Hot Work

Hot work is work in which a flame is used, or sparks or other sources of ignition may be produced.

This includes:

- a) cutting, welding, burning, air gouging, riveting, drilling, grinding, and chipping,
- b) using electrical equipment not classified for use in a hazardous location, and
- c) introducing a combustion engine to a work process.

Work activities that meet the definition of "hot work" must be carried out in accordance with the requirements of this section when they are carried out in a work area that is itself a hazardous location such as a Confined Space.

Unauthorized Entry

Only workers authorized, trained and listed on the confined space permit are permitted in confined spaces.

Reasonable measures must be taken to prevent un-authorized entry to restricted or confined spaces.

Traffic/Pedestrian Control

Be aware that vehicular and pedestrian traffic may pose a hazard to confined space or restricted space entries, or vice versa.

Common Traffic Hazards include:

- Exhaust Fumes from idling vehicles entering the space
- Heavy moving trucks in close proximity to the confined space affecting ground stability such as a Trench.
- Workers exposed to vehicles

Note: a particular hazard in confined space entry with street manhole entries are a lifeline attached to the tripod and the tripod being struck by a vehicle. To mitigate this hazard disconnect the lifeline from the tripod, not the worker, and lay it on the ground ready to be used if needed. Additional precautions, for all workers in such an entry, are physically blocking the entry from traffic with a parked vehicle.

Personal Protective Equipment (PPE)

The objective of PPE is to protect workers from the risk of injury by creating a barrier or shielding them against hazards. Personal protective equipment is not a substitute for good engineering or administrative controls but should be used in conjunction to ensure the safety and health of workers. PPE is the last line of defense. Personal protective equipment will be provided, used, and maintained when it has been determined that its use is required and that such use will lessen the likelihood of occupational injury and/or illness. A PPE program is a school/department responsibility.

Equipment

Selection/Care/Use

Equipment must be selected appropriate to the hazards and confined space permit, used according to the manufacturer's instructions, OH&S Code and relevant Standards. As per manufacturer's recommendations and legislated requirements, shall be inspected prior to use and recertified as required by the manufacturer. It is imperative that workers follow the manufacturer's" guidelines in the use, care and maintenance of the specific equipment used.

For confined space entries requiring a worker to fully enter a confined space, a full body harness or anklets restraints are required to be worn dependent on the type of confined space being entered, such as vertical or horizontal entry, by each entrant, for the duration of the entry in order to help facilitate a potential rescue. A lifeline shall also be used to facilitate non-entry rescue ***unless it creates an additional hazard*** such as entanglement.

Removal of Equipment from Service

Equipment found to be defective, damaged or questionable shall be taken out of service. The equipment in question will be either sent for repair to the manufacturer or destroyed immediately.

Communication

Communication is one of the most important factors in confined space entry and rescue. Communication must be maintained between workers within the space and the Safety Watch outside the space. Inside the space and outside are two different worlds – communication must be maintained between them. The Tending Worker/Safety Watch must also have a suitable means of summoning assistance. The system of communication chosen must be appropriate to the space, considering the hazards and environmental conditions affecting the system.

Example:

- 1) The Safety Watch selects a cell phone as his communication system. However, he is below grade in a large concrete building and does not test his cell phone reception. The workers within the space encounter difficulty requiring the ERP to be activated, but when the cell phone is used there is no signal. In this situation there is a high likelihood of a fatality.
- 2) The communication system chosen is verbal. However, there is equipment in or near the space starting intermittently producing sufficient noise that verbal communication is not possible. This will impair work at the least or result in a fatality if the worker encounters difficulty.

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- 3) Radio communication is the system chosen for an entry. However, no one has ensured the batteries are fully charged. The confined space entrant's battery dies and the Safety Watch subsequently does not receive a response when trying to raise the entrant on the radio. In this case the Tending Worker must activate the ERP and the entrant will not know anything is amiss until a rescue taps him on the shoulder as a best case or, once again, if there is a problem may result in a fatality.

Communication signals must be clear and concise. Avoid words that sound similar such as: **no, whoa, slow, go**. Whatever the system used, all workers involved in the confined space entry must understand what the signals are and what they mean. If the communication is not clear the confined space entry is compromised and may result in injury or fatality.

Communication Systems fall into one of three categories:

- 1) Audible – can be *heard* such as Talking, radio, whistle, tapping/ banging on structure, air horn
- 2) Visual – can be *seen* such as Hand signals, flashlight, flags
- 3) Tactical- can be *felt* such as tugging on a rope or tapping on the shoulder in the case where none of the above techniques is practical, a second worker may be positioned safely in the confined space to relay communication.

The signal system must be pre-arranged and can be designed by the workers involved as long as all workers understand the signals and their meanings.

The confined space permit must specify that a communication system is established and is readily available to workers in a confined space and is appropriate to the hazards.

Conducting a Pre-Entry Meeting

Ensure all employees who will be involved in the entry are aware of all associated hazards. The Pre- Entry meeting is to be conducted no earlier than one day before the entry.

- The following outline should be used for the meeting:
- Identify the confined space and the reason(s) for entry.
- Assign each worker the job(s) he/she is to perform in the entry project (Entrant, Safety Watch, etc.).
- Ensure all workers are competent for the job that is going to be performed and to operate the equipment going to be used.
- Inform all personnel that no one is to enter the confined space unless the Tending worker is present at the work site.
- Inform personnel of any access or egress concerns.
- Inform personnel of all equipment that must be locked out or tagged out.
- Inform personnel of all atmospheric levels that must be maintained before entering and while working in the confined space.

Emergency Procedures

Pidherney's will ensure that a worker does not enter or remain in a confined space unless an effective rescue can be carried out. Emergency response plan will include 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:

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

SECTION 18: Topic Specific

The Rescue Plan will be placed into action by the Safety Watch upon:

- Failure of the ventilation system
- Communication of emergency by worker(s) inside the space
- Monitoring equipment alarm
- Loss of communication with worker(s) inside the space

**Note: If nature of emergency is unknown and/or due to loss of communication, a hazardous atmosphere will be assumed. The subsequent entry rescue must be conducted with the use of SCBA or SABA.*

The designated rescue and emergency workers must be trained in emergency response appropriate to the work site. The training specified must include exercises appropriate to the potential Confined Space Emergency.

Though all necessary controls shall be in place to prevent a confined space emergency an effective rescue plan must be in place in the event of an unforeseen incident.

With the consideration that most confined space casualties are would be rescuers, planning for rescue shall follow the hierarchy listed below:

- 1) **Self-Rescue** – the worker(s) are able to evacuate the space unassisted. This may include use of escape respirators or other equipment specific to emergency evacuation.
- 2) **Non-Entry Rescue**- the worker(s) are able to be rescued by the tending worker and/or other designated rescuers *without* entering the space. This is achieved through the use of, or combination of, lifelines, full body harness, tripod or davit arm, winch, rope haul system, reach poles. *Note: Even though the rescuers and safety watch are not entering the space, they still must first ensure their own protection since atmospheric hazards can affect those in the hot zone.*
- 3) **Entry Rescue**- workers who are designated as rescuers must be trained in the specific procedures for rescue in the confined space. If rescue is necessary due to atmospheric hazards, or in the case cause is unknown shall be treated as atmospheric hazard, Pidherney workers will not perform the rescue. Rescue due to atmospheric hazard shall be conducted by a contracted Stand-by Rescue Team.

Work involving an Immediately Dangerous to Life and Health (IDLH) Hazard requires a contracted Stand-by Rescue Team to be on-site for the duration of the work.

In the event of a confined space emergency the safety watch shall implement the rescue plan as detailed on the confined space permit.

Equipment Required for Rescue as detailed on the Permit must be on site, inspected and ready for use prior to the entry!

THE SAFETY WATCH MUST NOT ENTER THE SPACE, nor allow any other would be rescuer to enter the confined space.

Too many confined space rescue attempts claim the lives of unprepared rescuers.

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Safety Watch

A Safety watch must be designated for *every Restricted and/ or Confined Space Entry*. The Safety Watch must be in constant communication with the worker(s) in the space and have a system for activating the emergency response plan that is suitable to the conditions i.e. cell phone/ radio reception, intrinsically safe device in potentially flammable atmosphere.

The Safety Watch must be stationed at the entrance, *at all times*, with no additional duties, under the following potential conditions:

- a) the oxygen content of the atmosphere inside the confined space is less than 19.5 percent by volume, or;
- b) the oxygen content of the atmosphere inside the confined space is greater than 23.0 percent by volume, or;
- c) the concentration of a substance listed in Table 2 of Schedule 1 of the OH&S Code inside the confined space is greater than 50 percent of its occupational exposure limit; or
- d) a hazard other than one listed in clauses (a), (b) or (c) is identified by the hazard assessment and the hazard cannot be eliminated or effectively controlled.

Where the above mentioned conditions do not exist, the Safety Watch may not be required at or near the entrance in all cases *but* must still maintain constant communication, at a maximum of 15 minute intervals, with the worker(s) inside the space.

The Safety Watch must also keep track at all times of the workers inside the space on the Entry/Exit Log portion of the confined space permit and must not leave the area until *all* workers have left the confined space or another Safety Watch is in place.

Entry and Exit

A safe means of entry and exit, free from traffic hazards, must be provided for all confined space or restricted space workers and rescue personnel. For example, secured steps, temporary platforms and handrails may be suitable in certain circumstances.

Placement of Warning Signs

If the confined space will be left open for any length of time, warning signs and barriers will be required.

If the confined space is left attended for any period of time, the confined space is secured and any flammable gas sources are removed.

Retaining Records

The safety department must retain records of entry permits, air monitoring data, worker entry records and other

applicable information related to each confined space entry for:

- 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.

Confined Space Entry Procedure

- 1) Place warning signs or barriers to prevent unauthorized entry and to protect entrants from external hazards.
- 2) Gather all tools, safety equipment, monitoring equipment, etc., near the confined space.
- 3) Isolate and control all physical and/or energy sources.
- 4) The Safety Watch tests the atmosphere.
 - a. If oxygen content is less than 19.5% or greater than 23%, perform additional ventilation.
 - b. If oxygen content is between 19.5% and 23%, continue entry preparation.
- 5) The Safety Watch must test for flammable gas level.
 - a. If the meter reading is less than 10% of the lower explosive limit (LEL), continue entry preparations.
 - b. If the meter reading is above 10% of the LEL, stop work and continue ventilation of the confined space.
- 6) The Safety Watch will determine the toxicity of the atmosphere.
 - a. If a toxic atmosphere is present, no one should enter the confined space at a level exceeding the Occupational Exposure Limit (OEL) without proper Personal Protective Equipment.
 - b. If a toxic atmosphere is not present continue entry preparation
- 7) The Supervisor will then add any needed information, and check to ensure hazards are controlled.
 - a. If the hazards are not controlled the Supervisor must ensure controls are placed before authorizing the permit.
- 8) Conduct pre-entry meeting.
- 9) The Supervisor completes and signs the Entry Permit authorizing work to be conducted in the confined space.
- 10) The permit is posted at the confined space entrance.
- 11) The work is completed according to the confined space entry permit.
- 12) The permit is returned to the Supervisor to be signed after the authorized work has been completed.

Restricted Space Entry Procedure

- 1) Place warning signs or barriers to prevent unauthorized entry and to protect entrants from external hazards.
- 2) Gather all tools, safety equipment, monitoring equipment, etc., near the confined space.
- 3) Use Pidherney's Confined Space/Restricted Space Checklist (See Appendix B) to familiarize yourself with the associated hazards.
- 4) If the hazard assessment required other special precautions the entrants must employ these precautions before entering the confined space.
 - a. The trained entrant must test the atmosphere.
 - b. If atmospheric conditions are not acceptable continue with the Confined Space entry procedure.
 - c. Isolate and control all physical and/or energy sources. Check to ensure hazards are sufficiently controlled.
- 5) The work is completed, and the area is returned to the original operating conditions.

Sewer Entry Procedure

Of the various hazards that may be present in sewers, gases and vapors are particularly dangerous because most of them do not have good warning properties. Gases and vapors found in sewers can be toxic, flammable, invisible and are often odorless.

Some Common Sewer Environmental Hazards:

Type of Hazard	Flammable / Explosive	Odor	Lighter or Heavier than Air	Action
Oxygen Deficiency	No	No	N/A	Asphyxiant
Hydrogen Sulphide (H ₂ S)	Yes	Yes, rotten egg smell at low concentrations, no odor at high concentrations.	Heavier	Highly Toxic
Carbon Monoxide	Yes	No	Almost the same as air	Asphyxiant, highly toxic
Methane	Yes	No	Lighter	Asphyxiant
Gasoline Vapors	Yes	Yes, sweet odor	Heavier	Toxic, central nervous system effects, Asphyxiant in high concentrations

Note: Elevated or low oxygen levels may affect the accuracy of lower explosive limit (LEL) detectors.

Prior to sewer entry, the following things should be taken into consideration;

- Is it absolutely necessary to enter the sewer to complete this work?
- Will traffic control be a factor?
- Has this sewer been recently entered?
- Are there businesses or industries nearby that may use or dispose of chemicals or fuels?
- What are the job tasks being carried out in the sewer?
- What tests are needed to ensure that the air in the sewer is safe?
- If contaminants are present, what special precautions are needed?
- Will it be possible to isolate the work space?
- Are there procedures/precautions in place for biological hazards?
- Will special equipment be needed for this entry?
- What rescue equipment will be required?
- What are the potential hazards associated with weather, i.e. flash flood, storm, etc.?

Preparation

- 1) Secure the area by using signs, barricades, etc.
- 2) Do a hazard assessment of the job. (This will alert you to the PPE required for the job.)
- 3) Have a pre-entry job meeting.
- 4) Fill out Confined Space Checklist/Permit.
- 5) Review the Emergency Response Plan with workers.

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- 6) Ensure that all equipment needed is at the site and ready to use.
- 7) Ensure all permits are filled out including Pidherney's Confined Space Entry Permit.

Procedure

- 1) Test atmosphere and identify toxic gases or oxygen deficiencies (19% or less). Testing confirms that the oxygen content remains within acceptable limits and that a buildup of harmful substances including explosive gases is avoided. All tests must be carried out by a competent person (in most circumstances that would be the Safety Watch). If the worker is required to enter the sewer to conduct the tests, the worker must be protected by the use of appropriate respiratory protection equipment.
- 2) Use ventilating, bonding, blinding, and double valves to make area safe. Ensure the blower is supplying the work space with fresh, clean air – do not place the air intake near vehicle exhausts or where contaminants could be picked up from another area. Proper ventilating procedures for sewer require air to be blown through hoses to the furthest limits of the work area. This method reduces the risk of a build-up of hazardous gases in the space. The amount and duration of ventilation required depends upon site conditions and must be determined by testing the atmosphere until it is safe for workers to enter.
- 3) To prevent harmful substances from entering the work space, pipes feeding into the work area can be isolated by blanking or blinding. If the work area contains moving equipment parts, such as paddles, drives, etc. the equipment must be locked out, or otherwise rendered inoperative to prevent accidental re-activation.
- 4) Prepare worker for entry, using lifeline, communication, SCBA, SABA, respirator, or other equipment. **Test each piece before use.**
- 5) Allow worker to enter while outside person stands by (Safety Watch) and keeps in communication while watching for changes in working conditions.
- 6) Keep track of time to make sure that worker is not in confined space too long.
- 7) If emergency does occur, follow **Emergency Response Plan** as laid out prior to entry. **Do not deviate from this plan unless absolutely necessary.**

Remember: No one shall leave their post while work is in progress or enter a confined space without a Safety Watch being present.

Post job

- 1) Remove tools, PPE, etc. and ensure site is cleaned up.
- 2) Do a head count to ensure everyone is out of the confined space
- 3) Record time done on permit and hand in to Supervisor.
- 4) If SCBA was used, return to shop for recharging and cleaning.

Pidherney's Safe Work Practices for Sewer Manhole Entry is as follows:

General

- 1) Everyone is responsible for health and safety on the work site. Sewers present various hazards to be aware of.
- 2) Gases: sometimes odorless can be both toxic and explosive (i.e. H₂S, carbon monoxide, methane).
- 3) Harmful Substances: gasoline, oil, paints, solvents, and others.
- 4) Oxygen Deficiency: some gases displace oxygen as well as some chemical and biological reactions.

Pre-Entry Planning

- 1) Be aware of your surroundings.
- 2) Know if there are any businesses or plants nearby that may contribute to hazards (e.g. gas stations, chemical plants).
- 3) Have your job organized to minimize the time spent in manhole.
- 4) Have your traffic rerouted or under control.
- 5) Check all safety equipment.
- 6) Respiratory equipment will be available if required.
- 7) Explosion proof lights should be used.
- 8) Make sure a rescue procedure is planned.
- 9) Ventilate the work space to ensure adequate air.
- 10) Make sure there are enough workers available to effectively carry out a rescue if necessary.

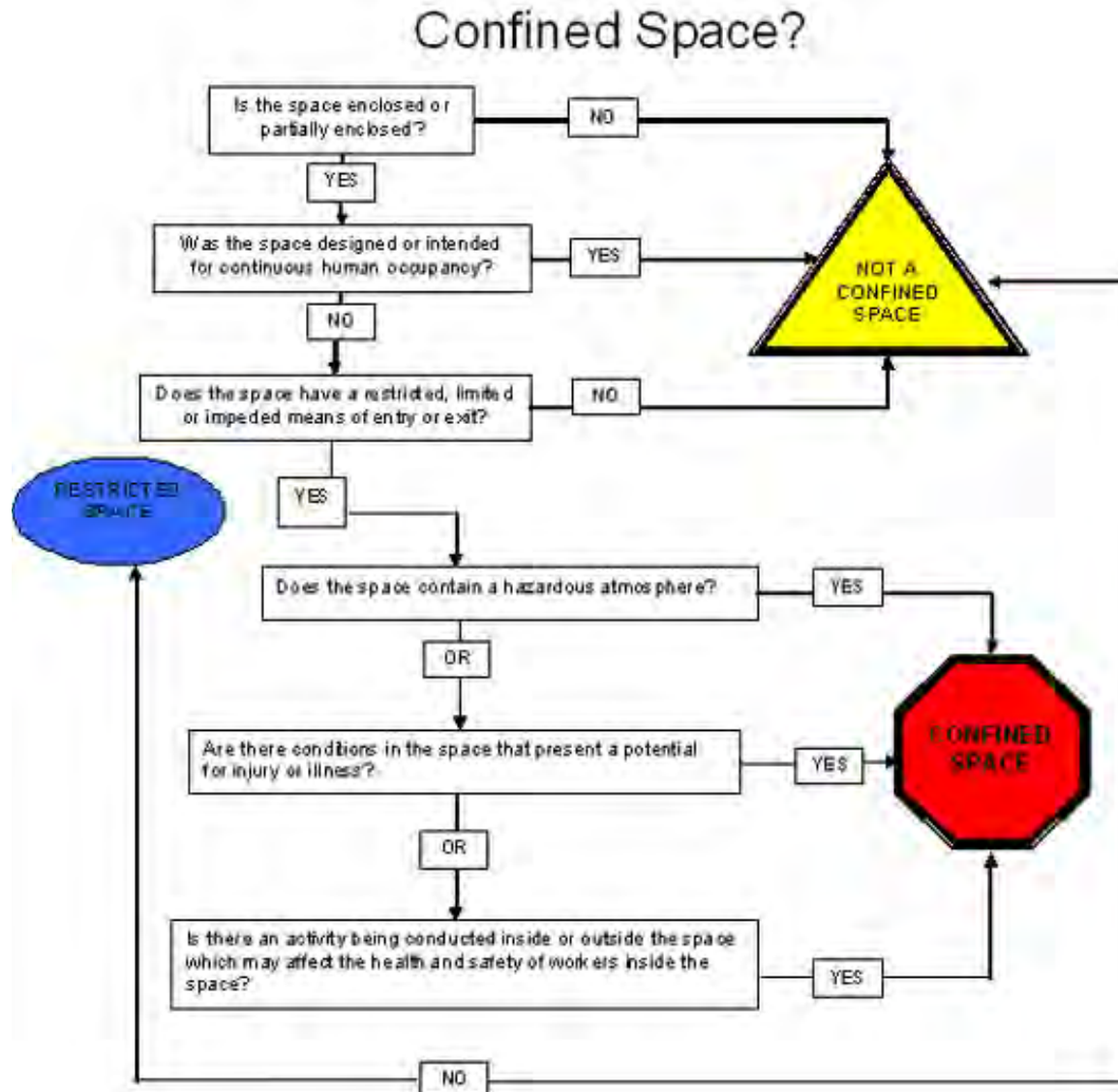
Entry Procedures

- 1) Secure site – traffic control and manhole is barricaded.
- 2) Ensure all equipment necessary is on site and being used – air quality testing equipment, harness and life line, all rescue equipment.
- 3) Ensure all atmospheric hazards present in manholes are identified and controlled – oxygen deficiencies, toxic and explosive gases, harmful substances.
- 4) Ensure all physical hazards are identified – cracked walls, broken access rungs, fast flowing effluent.
- 5) Be sure that all workers know what procedures to follow in emergency situations.

Before entering any confined space, ensure that you are equipped with the proper PPE for the job. PPE required for sewer manhole entry is as follows:

LIVE SEWER MANHOLE ENTRY	NON-ACTIVE SEWER MANHOLE ENTRY
SCBA	Respirator / dust mask
Hip waders or liquid repellant coveralls	Coveralls
Long sleeved shirt	Long sleeved shirt
Rubber gloves	Rubber gloves
Goggles and/or face shields	Goggles
Rubber boots	Steel toed boots
Reflective vest	Reflective vest
Harness	Harness
Hard hat or mechanical helmet	Hard hat or mechanical helmet
Tripod, gas monitors, and air blowers should be used in both Live and Non-Active sewer manhole entries to ensure a safe working atmosphere.	

FLOW CHART – IDENTIFYING A CONFINED SPACE



FORMS - See Appendix B

- Confined Space (Non Routine) Hazard Assessment and Work Sheet
- Confined Space/Restricted Space Checklist & Confined Space Permit

18.4 CRANES, RIGGING, HOISTING AND LIFTING DEVICES

Lifting Device- a device used to raise or lower materials or an object.

For the purpose of this procedure, all lifting devices including cranes and hoists, with a rated capacity of 2000 kilogram or more are subject to the requirements of this procedure. However, all lifting devices with a rated load capacity of less than 2000 kilograms have the rated load capacity of the equipment shown on the equipment.

A crane operator's job is very important. It is a position of responsibility that operators must be authorized to hold. There are rules and regulations that must be obeyed and responsibilities that must be accepted. Pidherney's employees need to be aware that all cranes are different and may have specific operating, safety, inspection and maintenance requirements. It is essential that the operator have the manufacturer's operating manuals and is familiar with that particular crane.

Identification of components

Pidherney's will ensure that all major structural, mechanical, and electrical components of a lifting device are permanently and legibly identified as being component parts of a specific make and model of lifting device.

Rated Load Capacity

All lifting devices will have a plate or weatherproof label permanently secured to it that legibly shows;

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

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

If a load (1) exceeds 75 percent of the rated capacity of the crane or hoist, or (2) requires more than one crane or hoist. It is a critical lift and must have a critical lift plan completed and HSE advisor must be advised.

All bucket hooks must be certified yearly to ensure that they are safe for the purpose of lifting.

All safety devices installed on lifting equipment must be operational and no point are they to be by-passed or disabled.

Load Charts

A mobile crane or boom truck will be equipped at all times with load charts showing the rated load capacity of the mobile crane or boom truck at all permitted boom angles and boom radii.

A tower crane will have a load chart that is;

- a) Conspicuously and permanently secured to the cab, and
- b) Showing the manufacturers rated capacity loads at various radii of a two-part line and a four-part line separately.

Operator Requirements

Lifting devices will only be operated by a competent worker that is authorized by Pidherney's to operate the equipment. The operator is in charge of the lift, they will be the designated person in charge and at no point and time shall the operator leave the lifting equipment unattended.

At Pidherney's request, the operator must be able to demonstrate competency in operating the device including, where relevant;

- a) Operating lifting device in a proper, safe, controlled, and smooth manner in accordance with the manufacturer's specifications;
- b) Reading and understanding lift plans;
- c) Maintaining the equipment log book and the operator's log book;
- d) Selecting the appropriate boom, jib, and crane configuration to meet lift requirements and determine the net lifting capacity of this configuration;
- e) Determining the number of parts of line required;
- f) Thoroughly understand the information in the operating manual and understand the device's limitations;
- g) Knowing, understanding and properly using the load charts;
- h) Inspecting the lifting device and performing daily maintenance as required by the manufacturer's specification or by the employer;
- i) Checking that all hazards have been identified;
- j) Shutting down and securing the device when it is unattended; and ensure lifting device is safely lowered to the ground,
- k) Understand and use hand signals for hoisting operations.

Before operating a particular lifting device, the operator must be familiar with all recent entries in its log book.

Any worker who does not meet the above requirements is prohibited from operating the lifting device.

Log Books

Log books are a crucial source of relevant information about the operational condition of a lifting device. Pidherney's will either have a hard copy version that stays with the equipment of an electronic version linked to a computer.

Information in the log book must be;

- a) Readily available to an occupational health and safety officer and ready for inspection in a prompt, timely and cooperative manner,
- b) Be up to date, accessible and ready for use by an operator in a prompt and timely manner, and
- c) Stays with the lifting device if ownership of the device changes.

Preventing an Unsafe Lift

The operator is responsible for being aware of conditions that may affect safety at the lift site. This can include site conditions, equipment conditions, or any other aspect of the lift. If the operator has any doubt as to the safety of the lift, the operator must cease operations until the condition is made safe.

All lifting devices and equipment are to be visually inspected before each use. If any of the equipment does not pass inspection it is to be tagged out of service immediately and the lift stops.

At no point and time are any personnel to be lifted, with equipment.

Preventing Collisions

Whenever two or more lifting devices are on a job site and close enough that a collision might happen, Pidherney's will;

Prepare safe job procedures to prevent collisions and available to the workers. The safe job procedure will take into consideration the following;

- Provision of adequate, qualified supervision
- Ground conditions
- The use of proximity sensing and warning devices
- Exact load weight and configurations
- The longest expected load radius of each crane
- Boom length and boom angles of each crane
- Line, swing, and boom speeds
- The need to travel with a load.

The operator will be kept aware of operating conditions, including the location and proximity of other lifting devices. The operators will also be provided with a visual or auditory means of communicating with each other.

The workers involved will know what they must do and what movements will be made before the lift begins.

Load Weight

Pidherney's will ensure that the operator of the lifting device, (person in charge is the operator) the rigger supervised by the operator of a lift are provided with all the information necessary to enable them to readily and accurately determine the weight of the load to be lifted.

Loads over Work Areas

The planning for a lift must ensure that the load is not moved over workers.

The planning process will assess;

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

Workers will not stand or pass under a suspended load, whether the load is moving or stationary.

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

Tag and Hoisting Lines

If workers are in danger because of the movement of a load being lifted, lowered or moved by a lifting device, Pidherney's will ensure that;

- a) The worker uses a tag line of sufficient length to control the load, and
- b) The tag line is used in a way that prevents the load from striking the worker controlling the tag line.

The operator of a lifting device that is lifting a load must ensure that the hoisting line is in a vertical position over the centre of gravity of the load.

Hand Signals

Pidherney's will ensure that hand signals necessary to ensure a safe hoisting operation are given in accordance with Section 191 of Alberta's OH&S Code by a competent signaller designated by Pidherney's.

All riggers must wear a reflective vest to ensure they are identifiable and visible.

Only the rigger shall give the operator signals

Controls

Pidherney's will ensure that an operator who uses a remote control to operate a lifting device is visually distinguishable from other workers at the work site.

Repairs and Modifications

Structural repairs or modifications to components of a lifting device are;

- a) Made only under the direction and control of a professional engineer, and
- b) Certified by the professional engineer to confirm that the workmanship and quality of materials used has restored the components to not less than their original capacity.

If structural repairs or modifications are made, Pidherney's will ensure that;

- a) The repaired or modified components are individually and uniquely identified in the log book and on the component, and
- b) The professional engineer's certification makes reference to those components and their identification.

Containers for Hoisting

Containers must be strong enough to withstand hoisting forces and forces exerted by the load. A person must not use an oil drum or similar container as a container for a load being lifted by a hoist unless the drum or container is hoisted in a cage designed for that purpose.

FORMS - See Appendix B

- Critical Lift Plan
- Crane Operator Daily Checklist
- Wire Rope Sling and Hook Inspection Form

18.5 ELECTRICAL SAFETY PROGRAM

General

The Electrical Safety program is designed to prevent electrically related injuries and property damage. This safe work program addresses the requirements for Pidherney's employees to ensure they have the requisite knowledge and understanding of electrical work practices and procedures. Only certified employees may conduct adjustment, repair or replacement of electrical components or equipment. All employees must be deemed competent before working near or with electrical equipment. Electricity has long been recognized as a serious workplace hazard, exposing employees to such dangers as electric shock, electrocution, fires and explosions.

A written description of the program, including the specific procedures adopted by us, is available at all job sites for inspection and copying by any affected employee.

Pidherney's ensures that all electrical equipment used is approved and is of a kind or type and rating approved for the specific purpose for which it is utilized.

Equipment Grounding Conductor Program

This written plan is intended to establish and implement specific procedures for equipment grounding conductor program covering:

- all cord sets,
- receptacles which are not a part of the building or structure, and
- equipment connected by cord and plug which are available for use or used by employees.

These requirements apply to Pidherney's entire construction job sites.

Equipment Grounding Conductor Inspection

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, are visually inspected by Site Supervisor before each day's use for external defects, such as deformed or missing pins or insulation damage, and indications of possible internal damage. The Supervisor will also inspect that the cords are being properly used for the application they are required. This will include the requirement of GFCI (ground fault circuit interrupters) in outside or damp locations. Where potential damage to cords exists, the Supervisor will ensure that these cords are protected.

Equipment found damaged or defective is not to be used until repaired and is to be removed from service immediately by the person finding it and handed over to Site Supervisor.

General Protection of Persons & Property

Pidherney's ensures that electrical equipment will be installed and guarded so that adequate provision is made for the safety of persons and property. Additionally, Pidherney's will provide protection for the electrical equipment from mechanical or other damage to which it is liable to be exposed.

Bare Live Parts

Pidherney's ensures that bare live parts will be guarded against accidental contact by means of approved cabinets or other forms of approved enclosures except where this code exempts or by any of the following means:

- By location in a room, vault, or similar enclosure that is accessible only to qualified persons.
- In locations where, electric equipment would be exposed to physical damage, enclosures or guards will be so arranged and of such strength as to prevent such damage.

Maintenance & Operation

Pidherney's ensures that all operating electrical equipment will be kept in safe and proper working condition. Electrical equipment maintained for emergency service will be periodically inspected and tested as necessary to ensure its fitness for service. Infrequently used electrical equipment maintained for future service will be thoroughly inspected before use in order to determine its fitness for service. Defective equipment will either be put in good order or permanently disconnected. The Company must ensure that in locations where explosive or flammable materials or gases are present, special precautions will be observed as follows: repairs or alterations will not be made on any live equipment and fits or seals in enclosures will be maintained in their original safe condition.

Shock & Flash Protection

Pidherney's ensures that electrical equipment such as switchboards, panel boards, industrial control panels, meter socket enclosures and motor control centers that are installed in other than dwelling units and are likely to require examination, adjustment, servicing or maintenance while energized will be field marked to warn persons of potential electric shock and arc flash hazards. The markings will be located so that it is clearly visible to persons before examination, adjustment, servicing, or maintenance of the equipment.

Accessibility for Maintenance

Pidherney's ensures that passageways and working space around electrical equipment will not be used for storage and will be kept clear of obstruction and arranged to give authorized persons ready access to all parts requiring attention. We maintain a minimum working space of 1m with secure footing that is provided and maintained about electrical equipment such as switchboards, panel boards, control panels, and motor control centers 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. Pidherney's ensures that each room containing electrical equipment and each working space around equipment will have suitable means of egress, which will be kept clear of all obstructions.

Illumination of Equipment

The Company ensures that adequate illumination will be provided to allow for proper operation and maintenance of electrical equipment.

Flammable Material & Combustible Gas Equipment

Pidherney's ensures that flammable material will not be stored or placed in dangerous proximity to electrical equipment. Pidherney's ensures that when installed outdoors, arc-producing electrical equipment will not be installed within 1m of the discharge of a combustible gas relief device or vent.

SECTION 18: Topic Specific

Ventilation

Pidherney's ensures that adequate ventilation will be provided to prevent the development around electrical equipment of ambient air temperatures in excess of those normally permissible for such equipment.

Effective Grounding

Pidherney's ensures that the path to ground from circuits, equipment, or conductor enclosures will be permanent and continuous, will have ample ampacity to conduct safely and currents liable to be imposed on it, and will have impedance sufficiently low to limit the voltage above ground and to facilitate the operation of the overcurrent devices in the circuit.

Classification of Hazardous Locations

The Company ensures that hazardous locations will be classified according to the nature of the hazard as follows:

- Class I** - locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive gas atmospheres,
- Class II** - locations are those that are hazardous because of the presence of combustible or electrically conductive combustible dusts, and
- Class III** - locations are those that are hazardous because of the presence of easily ignitable fibers or flyings, but in which such fibers or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

Pidherney's ensures that where electrical equipment is required by this Section it is to be approved for use in hazardous location it will also be approved for the specific gas, vapor, mist or dust that will be present. The Company must ensure that no electrical equipment will be used in a hazardous location, unless the equipment is essential to the process being carried out. Service equipment, panel boards, switchboards, and similar electrical equipment will, where practicable, be located in rooms or sections of the building in which hazardous conditions do not exist.

Working on Electric Circuit Parts or Equipment/Lockout Tag out

Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, Pidherney's will ensure that the electrical conductor or electrical equipment is isolated, locked out, and connected to ground. If it is not reasonably practicable to de-energize electrical equipment before performing electrical work, alternative hazard controls will be implemented and approved before electrical work begins. Only qualified personnel are permitted to work on electric circuit parts or equipment that has not been de-energized. Qualified personnel will be made familiar with the use of special precautionary techniques, including but not limited to the following:

- Proper personal protective equipment- ex flash gear
- Insulating and shielding materials.
- The use of insulated tools to ensure safety.

Warnings and Barricades

Warnings and barricades will be employed to alert unqualified employees of the present danger related to exposed energized parts. The following rules apply:

- Safety signs, warning tags, etc., must be used to warn Unqualified Employees of the electrical hazards present, even temporarily, that may endanger them.
- Non-conductive barricades will be used with safety signs to prevent Unqualified Employees access to exposed energized parts or areas.

- Where barricades and warning signs do not provide adequate protection from electrical hazards, an Attendant will be stationed to warn and protect Employees.

Training Requirements for All Employees

All Employees that may have the potential to be working near overhead power lines undergo Overhead Power Line Contact Awareness Course. All employees receive electrical awareness training as well as the following;

General Electrical Safety Rules

- Do not conduct any repairs to electrical equipment.
- Report all electrical deficiencies to your supervisor.
- Do not operate equipment if you suspect an electrical problem.
- Water and electricity do not mix.
- Even low voltages can injure or be fatal.
- Do not use cords or plugs if the ground prong is missing.
- Do not overload electrical receptacles.

Personal Protective Equipment

PPE requirements within the arc flash boundary shall be determined by completing a hazard analysis form. PPE must cover the entire body when working within the arc flash boundary. This may include, but is not limited to, arc flash suit with face shield, safety glasses, non-conductive head protection, and leather gloves and footwear. Rubber insulating gloves shall be worn for protection from electric shock due to inadvertent contact with an energized electrical conductor or circuit parts.

Program Evaluation

The Electrical Safety Program is evaluated and updated annually to ensure the continued effectiveness of the program.

18.6 EXCAVATION AND TUNNELING

Purpose

The Excavating & Tunneling program is designed to prevent earth related collapse and contact with buried facilities related injuries, as well as property damage. This program provides the guidelines on planning and executing the excavation or tunneling program. Further details will need to be worked out with the Project Manager and Safety Manager when scopes become more complicated. It is recognized that excavations has long been recognized as a serious workplace hazard, exposing employees to such dangers as cave ins and contact with underground energized utilities.

A written description of the program, including the specific procedures adopted by us, is available at all job sites for inspection and copying by any affected employee.

Excavation Safety Hazard Assessment

A competent person must complete Pidherney's Excavation Safety Hazard Assessment prior to initial entry by a competent person and updated when conditions or hazards change. This form must be completed for each stage of the job that excavation entry is required and reviewed by all employees on site.

Administrative Duties

The HSE Manager has been designated as the competent person(s) to implement the Excavation and Tunneling Program. The competent person(s) are responsible for developing and maintaining this written Excavation and Tunneling Safety Plan.

They are qualified, by appropriate training and experience that is commensurate with the complexity of the plan, to administer and oversee our excavation and tunneling safety plan and conduct the required evaluations of plan effectiveness.

Disturbing the Ground

For the purpose of this Part, ground is disturbed if 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 only of:

- a) routine, minor road maintenance,
- b) agricultural cultivation to a depth of less than 450 mm (45cm) below the ground surface over a pipeline, or
- c) hand-digging to a depth of no more than 300 mm (30 cm) below the ground surface, so long as it does not permanently remove cover over a buried facility.

Classification of Soil Type

The soil being excavated will be classified into one of the three types described;

Hard and compact:

- a) it is hard in consistency and can be penetrated only with difficulty by a small, sharp object;
- b) it is very dense;
- c) it appears to be dry;
- d) it has no signs of water seepage;
- e) it is extremely difficult to excavate with hand tools;
- f) it has not been excavated before.

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Likely to crack or crumble:

- a) it has been excavated before but does not exhibit any of the characteristics of “soft, sandy, or loose” soil, or
- b) it closely exhibits most of the following characteristics:
 - i. it is stiff in consistency and compacted;
 - ii. it can be penetrated with moderate difficulty with a small, sharp object;
 - iii. it is moderately difficult to excavate with hand tools;
 - iv. it has a low to medium natural moisture content and a damp appearance after it is excavated;
 - v. it exhibits signs of surface cracking;
 - vi. it exhibits signs of localized water seepage.

Soft, sandy, or loose:

- a) it is firm to very soft in consistency, loose to very loose;
- b) it is easy to excavate with hand tools;
- c) it is solid in appearance but flows or becomes unstable when disturbed;
- d) it runs easily into a well-defined conical pile when dry;
- e) it appears to be wet;
- f) it is granular below the water table, unless water has been removed from it;
- g) it exerts substantial hydraulic pressure when a support system is used.

If an excavation contains soil of more than one soil type, Pidherney's must operate as if all of it is the soil type with the least stability.

Soil Stabilization

Pidherney's must stabilize the soil in:

- a) an excavation by shoring or cutting back, or
- b) a tunnel, underground shaft or open pit mine by shoring.

Pidherney's 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 if the process used is:

- a) designed by a professional engineer to control soil conditions, and
- b) performed in accordance with the professional engineer's specifications.

A person must not use 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.

Marking an Excavation

An open excavation can present a serious hazard to workers and equipment. If there is a danger of a worker or equipment falling into an excavation, workers will be made aware of the excavation through flagging, marking, safeguards or other appropriate and effective means.

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Water Hazard

An excavation that a worker may be required or permitted to enter is kept free of an accumulation of water that may pose a hazard to the worker such as; weakened excavation walls, increasing the potential of slope failure or complete collapse.

Worker Access

Workers will be provided with a safe means of entering and leaving an excavation, tunnel or underground shaft. Safe means of entering or leaving an excavation could include a ladder, scaffold, or a mechanical device such as a stairway. It could also include appropriate sloping of the ground or soil so that a worker can safely walk into or out of the excavation.

When portable ladders are used, the ladder side rails shall extend a minimum of three (3) feet above the upper surface of the excavation. Ladders shall be used only on stable and level surfaces unless secured. Ladders placed in any location where they can be displaced by workplace activities or traffic shall be secured, or barricades shall be used to keep these activities away from the ladders.

A worker will not enter an excavation, tunnel or underground shaft that does not comply with this Part.

Locating Buried Facilities – Also refer to Pidherney's Ground Disturbance Code of Practice

Before the ground is disturbed at a work site, the Company must:

- a) notify Alberta One Call for appropriate clearances
- b) contact the owner or the owner's designate of
 - i. a pipeline that is within 30 metres of the work site, and
 - ii. any other buried facility that may be affected by the ground disturbance,
- c) advise the owner or the owner's designate of the proposed activities,
- d) ask the owner or the owner's designate to identify and mark the location of the buried facility, and
- e) not begin disturbing the ground until buried facilities have been identified and their locations marked.

Pidherney's will ensure that workers are aware of locate marks for buried facilities.

Since the original locate marks can be disturbed or destroyed by activities at the site or with excavation, the marks must be re-established as often as necessary to ensure the safety of workers.

Exposing Buried Facilities - Also refer to Pidherney's Ground Disturbance Code of Practice

Hand expose zone - is the zone lying with 1 meter of each side of the locate marks that identify the location of the buried facility.

Mechanical excavation equipment is not permitted within the hand expose zone of a buried facility until the buried facility has been exposed to sight:

- a) by hand digging,
- b) by a non-destructive technique acceptable to the owner of the buried facility, or
- c) by a method equivalent to clause (a) or (b).

As per OH&S Code Subsection 448(1), Pidherney's may use mechanical excavation if:

- a) the only buried facility is an electrical cable or conduit that is grounded and isolated so that its disconnection is visible,
- b) the owner of the electrical cable or conduit is notified of the operation before it begins,

- c) the buried facility is no longer in use,
- d) the owner of the buried facility gives Pidherney's written consent to excavate or remove the facility, and
- e) Pidherney's ensures that excavating or removing the buried facility does not present a hazard.

Pidherney's may reduce the width of a hand expose zone for a high-pressure pipeline to within 1 metre on each side of the pipeline locate marks if:

- a) the high pressure pipeline is not governed by the Pipeline Act, and
- b) Pidherney's obtains written approval from the owner of the high pressure pipeline.

If the ground that will be disturbed lies within a pipeline right-of-way, Pidherney's will:

- a) contact the operator or licensee of the pipeline, and
- b) get their consent to disturb the ground.

If mechanical excavation must be performed with 600mm of an underground facility, Pidherney's will ensure that the excavation will only be carried out under the direct supervision of the facility owner, or a representative designated by the owner.

If Pidherney's, on behalf of an electric utility, undertakes emergency work that:

- a) involves ground disturbance to a depth of no more than 500 millimetres below the ground surface,
- b) is on the horizontal alignment or right of way of an electric utility structure, and
- c) it has been determined that no buried facilities are present in the area affected by the work, the Company is exempt from the requirements of OH&S Code subsection's 448 (1) through (5).

Pidherney's will ensure that any exposed buried facilities are protected and supported so that workers are not injured. If a pipeline is exposed during a work operation, the pipeline operator or licensee must be notified before backfilling the excavation.

Methods of Protection

Before a worker begins working in an excavation that is more than 1.5 metres deep and closer to the wall or bank than the depth of the excavation, Pidherney's must ensure that the worker is protected from cave ins or sliding or rolling materials by:

- a) cutting back the walls of the excavation to reduce the height of the remaining vertical walls, if any, to no more than 1.5 metres for "hard and compact soil" and "likely to crack or crumble soil",
- b) installing temporary protective structures, or
- c) using a combination of the methods in clauses (a) and (b).

This does not apply if a trench is constructed in solid rock throughout the entire trench.

When atmospheric hazards are present in a excavation, Pidherney's Confined and Restricted Space Program must be followed.

Cutting Back Walls

If the walls of an excavation are cut back, Pidherney's will ensure that the following legislated requirements are followed:

- a) if the soil is classified as "hard and compact soil", the walls are sloped to within 1.5 metres of the bottom of the excavation at an angle of not less than 30° degrees measured from the vertical,
- b) if the soil is classified as "likely to crack or crumble soil" the walls are sloped to within 1.5 meters of the bottom of the excavation at an angle of not less than 45° degrees measured from the vertical, and
- c) if the soil is classified as "soft, sandy or loose soil" the walls are sloped from the bottom of the excavation at an angle of not less than 45° degrees measured from the vertical.

Loose Materials

Loose materials must be scaled and trimmed from the sides of an excavation if workers may be on or near the sides.

Spoil Piles

Spoil piles must be piled so that:

- a) the leading edge of the pile is at least 1 metre away from the edge of the excavation,
- b) the slope of a spoil pile adjacent to the excavation is at an angle of not more than 45° degrees from the horizontal, and
- c) loose materials are scaled and trimmed from the spoil pile.

Power Pole Support

Any work that disturbs the ground in the vicinity of an overhead power line must be performed in a manner that does not reduce the original support provided for power line poles.

Safe Entry & Exit

If a worker is required to enter a trench that is more than 1.5 metres deep, a safe point of entering and leaving must be located not more than 8 metres from the worker. If a worker is in a trench that is more than 1.5 metres deep, the trench must be supported or sloped so that the worker can reach the safe point of entering and leaving safely.

Temporary Protective Structures

Temporary protective structures in an excavation must be:

- a) 3 metres or less deep are of sufficient strength to prevent the walls of the excavation from caving in or otherwise moving into the excavation, and
- b) more than 3 metres deep are designed, constructed and installed in accordance with the specifications of a professional engineer.

The specifications of a professional engineer for OH&S Code subsection 456(1)(b) must include:

- a) the size and specifications of the structure, including the type and grade of materials used in its construction, and
- b) the loads for which the structure is designed.

Before beginning an excavation, a foundation that may be affected by the excavation must be supported by a temporary protective structure designed, constructed and installed in accordance with the specifications of a professional engineer.

Alternatives to Temporary Protective Structures

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The following may be installed as temporary protective structures in trenches:

- a) if the trenches vary in depth from 1.5 metres to 6 metres, shoring, stringers and bracing constructed of lumber that complies with regulatory requirements, or a material that has equal or greater properties to those of the lumber;
- b) exterior grade plywood as a substitute for 38 millimeter shoring elements if:
 - i. the plywood meets the requirements of CSA Standard O121-M1978 (R1998), Douglas Fir Plywood or CSA Standard O151-M1978 (R1998), Canadian Softwood Plywood,
 - ii. the plywood is at least 19 millimetres thick,
 - iii. the trench is not more than 2.7 metres deep,
 - iv. uprights are installed at intervals of not more than 600 millimeter centre to centre,
 - v. cross braces do not bear directly on the plywood, and
 - vi. cross braces bearing on uprights or walers are located at all joints in the plywood sheathing.

Despite OH&S Code Subsection 457(1)(a);

- a) screw jacks, hydraulic equipment or other apparatus may be used as shoring, stringers or bracing if they are at least equivalent in strength and reliability to the shoring, stringers or bracing described in Schedule 9.
- b) if the trench is less than 2.4 metres deep and in soil classified as “hard and compact” the Company does not have to use stringers.

Despite OH&S Code Section 456, Pidherney's may install additional protection certified by a professional engineer in trenches to compensate for;

- passing vehicular traffic,
- working machinery or,
- a heavy object placed within a distance equal to the depth of the trench, measured from the near edge of the bottom of the trench to the traffic, machinery or heavy object. Despite OH&S Code Section 456, Pidherney's may install additional protection certified by a professional engineer in a trench to compensate for the stress created because the trench is adjacent to or abuts a building or other structure.

Installation of Shoring, Stringers or Bracing

A worker who installs shoring, stringers or bracing must use a ladder and work down from the top of the trench, installing each brace in descending order. A worker who removes shoring, stringers or bracing uses a ladder and works upward from the bottom of the trench, removing each brace in ascending order.

A worker must install shoring, stringers or bracing in accordance with OH&S Subsection 458(1) and remove them in accordance with OH&S Subsection 458(2). Despite OH&S Subsection 458(2) and (3), if the quality of the ground in which a trench has been dug has deteriorated during operations to the extent that it is unsafe to use the method of removal required by OH&S Subsection 458(2), shoring, stringers or bracing must be removed using a method that does not require the worker to be in the trench.

Shoring or bracing systems must be inspected;

- daily,
- after a rainstorm,
- earthquake, or
- other hazard-increasing occurrence.

Access for Powered Mobile Equipment

The open side of an excavation or a route used by powered mobile equipment to gain access to an excavation must have a barrier high enough to stop the equipment from sliding or rolling into the excavation.

Dumping Block

If powered mobile equipment may go over a bank or enter a dump opening while it is discharging its load, the equipment must be effectively stopped or controlled by:

- a) an anchored block,
- b) a ridge of material acting as a backstop, or
- c) a designated signaler with a stop signal.

Underground Shafts

During the excavation of an underground shaft that is between 1.5 metres and 6 metres deep, the walls of the shaft from the top down must be retained by temporary protective structures strong enough to prevent the walls from collapsing or caving in. During the excavation of an underground shaft 6 metres or deeper, the walls of the shaft from the top down must be retained by temporary protective structures certified by a professional engineer as strong enough to prevent the walls from collapsing or caving in.

Pidherney's will ensure that:

- a) a solid fence or equally effective means of preventing workers, materials and equipment from falling into the shaft is provided around an underground shaft opening, and
- b) gates not less than 1 metre high are installed at each entrance of an underground shaft and are kept closed when they are not being used.

Workers must keep a gate to the entrance of an underground shaft closed when it is not being used. Underground shafts will be provided with suitable and efficient machinery or other device for keeping the shaft free of accumulations of water.

Drilled or Bored Underground Shaft

A worker who is required to enter a drilled or bored underground shaft must be protected by a casing or temporary protective structure, and the casing or temporary protective structure must extend or remain at least 300 millimetres above surface of the ground where the shaft is drilled or bored.

Casing or temporary protective structure referred to in OH&S Subsection 462(1) must be certified by a professional engineer as having sufficient strength to resist the shifting of the surrounding materials. Subject to OH&S Subsection 462(4), if a worker in a belled area of an underground shaft is exposed to falling materials and is unable to stand clear of the area, Pidherney's will ensure that the worker precedes each load of excavated material to the surface.

If a worker referred to in OH&S Subsection 462 (3) cannot precede each load to the surface,

- a) the worker must accompany each load if the equipment is designed to safely transport both the worker and the excavated material simultaneously, and
- b) safe work procedures that include the procedures must be followed when the worker and the excavated material are moved simultaneously.

Prohibition

A worker must not enter a belled area of a drilled or bored underground shaft if the worker is not protected by temporary protective structures.

Tunnel

During the excavation of a tunnel, the walls of the tunnel from the top down must be retained by temporary protective structures certified by a professional engineer as strong enough to prevent the walls from collapsing or caving in. A tunnel must be provided with suitable and efficient machinery or other device for keeping the tunnel free from accumulations of water.

FORMS – See Appendix B

- Excavation Safety Hazard Assessment

18.7 FATIGUE MANAGEMENT

(Portions of this policy have been taken from the Alberta Road Builders & Heavy Construction Associations' Fatigue Management System Guidelines)

Policy

Pidherney's recognizes that given the industry we work in, fatigue becomes a factor that may in turn, affect a worker's ability to perform mental or physical tasks. Due to the nature of our work, the road building and heavy construction industries often extend the working hours of its employees. All management and supervisory personnel must be able to respond to the signs and symptoms that might impair the worker's performance due to fatigue. Orientation may be provided to recognize and respond to fatigue issues in the field.

The development, implementation and continual monitoring of a Fatigue Management System will ensure our company is providing an incident free work place and a safe and healthy work environment for all employees.

Fatigue: is 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 a combination of these factors.

Purpose

To ensure the compliance of requirements in order to retain permit privileges as a member of the ARHCA in respect of the *Extended Hours of Work Permit* issued by Alberta Human Resources and Employment.

Procedure

All company employees who may be affected by extended hours of work will attend an orientation on Fatigue Management. Orientation may include but is not limited to the following, dependent upon the employee's position and responsibilities:

- What is fatigue
- Signs, symptoms and consequences of fatigue
- Roles and responsibilities
- Preventative methods for dealing with fatigue
- Reporting procedures
- Monitoring methods

Signs, symptoms and consequences of fatigue

The signs, symptoms and consequences of fatigue may vary from one person to another; however, fatigue is likely to affect the individual worker's ability to perform and complete mental and physical tasks.

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.

Signs & Symptoms may include:

- Tiredness
- Sleepiness
- Irritability
- Depression

- Giddiness
- Loss of appetite
- Digestive problems
- An increased susceptibility to illness

Consequences may include:

- Slowed reactions-physical reaction to speed and speed of thought
- Failure to respond- to stimuli, changes in the surroundings, information provided
- Incorrect actions- either physical or mental
- Flawed logic and judgment and an increase in memory errors, including forgetfulness
- Decreased vigilance
- Reduced motivation
- Heightened risk tolerance

Roles and Responsibilities

Management

- Ensure the FMP (Fatigue Management Policy) is implemented throughout the company
- Provide necessary information about fatigue
- Orientate employees on fatigue and its effects
- Support employees who are experiencing concerns with fatigue
- Assist and advise supervisors
- Investigate problems and concerns
- Review the Fatigue Management Policy annually

Supervisors

- Ensure all workers involved in extended work hours understand the FMP
- Conduct safety meetings discussing the FMP
- Promote the FMP
- Ensure that tasks are performed in manner which promotes an accident free work place
- Be aware of possible risks associated with extended work hour and/or consecutive days of work
- Give workers as much notice as possible if extended work hours are anticipated
- Recognize symptoms of fatigue
- Take prompt action if a risk develops
- Relay information to and from management & employees
- Report any FMP problems, concerns and/or issues

Employees

- Actively participate in the FMP
- 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
- Never operate motor vehicles and / or heavy equipment while excessively fatigued
- Take periodic micro breaks as needed to minimize fatigue and increase mental fitness

Preventative methods for dealing with fatigue

- Orientate workers on the FMP
- Minimize extended work hours when possible
- Schedule rest days when possible
- Assess and control hazards and risks
- Provide an honest, open and healthy work environment
- Provide information and assistance
- Recognize individual and crew fatigue
- Give as much advance notice of extended hours as possible
- Ensure crewmembers have access to food and water
- Perform complex tasks earlier in the shift, if possible
- Account for employees returning from sickness, absences and/or modified work
- Consider travel time

Reporting procedure

- Report any unsafe act
- Report all incidents and near misses
- Inform management if a crew or an individual has a concern working extended hours

Monitoring methods

- Management and supervisors to monitor crew's hours of work with help from payroll
- Management and supervisors to determine the need for extended hours
- Management and supervisors are to address crewmember concerns
- Supervisors to monitor crews when working extended working hours.

**SECTION 18:
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ARHCA Permit

New Hires are provided a copy of the current exemption permit in new hire orientation.

File Number: PER-004124

**PERMIT
To Extend Consecutive Daily Hours of Work**

This permit is issued to:
ALBERTA ROADBUILDERS & HEAVY CONSTRUCTION ASSOCIATION
Suite 201, 9333 - 45 Avenue
Edmonton, Alberta T6E 5Z7

Date Issued: December 15, 2017

Expiry Date: October 31, 2018

The permit (PER-003473) issued to the Alberta Roadbuilders & Heavy Construction Association (ARHCA) on December 15, 2016 is immediately revoked. The following is a new permit authorizing extended consecutive daily hours of work.

This authorizes those employer members of the ARHCA, and their employees, who perform work on-site that is directly related to constructing, erecting, repairing, remodeling, altering, painting or demolishing of any building, bridge or bridge type structure, road, highway, railway, airfield, sidewalk, curb, gutter, irrigation or drainage system, earth and rockfill dam and water or sewage systems to extend the hours its employees may work in a day in accordance with Section 16(1) of the *Employment Standards Code (Code)*.

The following conditions apply:

1. The daily hours of work can be extended beyond the 12 hours per work day, up to a maximum of 16 hours per work day.
2. Despite this provision, the employer must comply if an employee requests that their hours of work be confined to 12 hours on any given day, subject to Section 16 of the Code.
3. Employees must receive at least 8 consecutive hours of rest immediately following completion of their shift. The 8 consecutive hours of rest does not include travel time. Employer members must record the times at which employees start and stop work each work day.
4. The employer members will ensure the health and safety of all employees and comply with the requirements of the *Occupational Health and Safety Act, Occupational Health and Safety Regulation, and Occupational Health and Safety Code*.
5. ARHCA shall provide a copy of this permit to each employer member.
6. Upon receipt of the permit, each employer member shall provide a copy of the permit to each affected employee.
7. The Director of Employment Standards may revoke, amend, or vary this permit at any time.



Mike Decore
Acting Director of Employment Standards

**SECTION 18:
Topic Specific**

File Number: PER-004125

PERMIT

Scheme of Employment to Extend Consecutive Days of Work

This permit is issued to:
ALBERTA ROADBUILDERS & HEAVY CONSTRUCTION ASSOCIATION
Suite 201, 9333 - 45 Avenue
Edmonton, Alberta T6E 5Z7

Date Issued: December 15, 2017
Expiry Date: October 31, 2018

The permit (PER-003474) issued to the Alberta Roadbuilders & Heavy Construction Association (ARHCA) on December 15, 2016 is immediately revoked. The following is a new permit authorizing extended consecutive days of work.

This authorizes those employer members of the ARHCA, and their employees, who perform work on-site that is directly related to constructing, erecting, repairing, remodeling, altering, painting or demolishing of any building, bridge or bridge type structure, road, highway, railway, airfield, sidewalk, curb, gutter, irrigation or drainage system, earth and rockfill dam and water or sewage systems to extend the hours its employees may work in a day in accordance with Section 16(1) of the Employment Standards Code (Code).

The following conditions apply:

1. The employer members must ensure employees take at least a total of 4 days of rest in each period of 4 consecutive work weeks. The days of rest do not have to be consecutive. If an employee works 4 or fewer hours (including travel time) on any work day, the remainder of the work day may be considered to be one-half a day of rest for the employee for purposes of accumulating the minimum 4 days of rest required. If an employee so requests, the employer members will give the employee a rest period of no less than 24 consecutive hours.
2. The employer members will ensure the health and safety of all employees and comply with the requirements of the *Occupational Health and Safety Act*, *Occupational Health and Safety Regulation*, and *Occupational Health and Safety Code*.
3. ARHCA shall provide a copy of this permit to each employer member.
4. Upon receipt of the permit, each employer member shall provide a copy of the permit to each affected employee.
5. The Director of Employment Standards may revoke, amend, or vary this permit at any time.



Mike Decore
Acting Director of Employment Standards

18.8 FIRST AID

Certified first aid attendants will be maintained at all Pidherney worksites, including office and shop personnel, in accordance with approved provincial legislation. The names of qualified first aid personnel shall be posted at work locations (where applicable).

First Aid Attendant Responsibilities

- Assess the situation and provide immediate first aid attention
- Take charge of the emergency site (if capable. Call Supervisor for assistance and relay details.
- Organize others to assist. Be very specific when giving directions; Using names and exact instructions
- Promptly provide injured employees with a level of care only within the scope of training.
- Comfort injured worker until assistance arrives.
- Secure the Emergency site to prevent further injury
- Objectively record observed or reported signs and symptoms of injuries and exposures to contaminants.

Never

- DO NOT attempt a rescue from a confined space or an H2S area without appropriate breathing protection.
- DO NOT move a victim unless leaving him where he is will cause further injury or endanger his life. Victims of H2S require resuscitation within three minutes. Beware of oxygen deficient atmospheres.
- DO NOT assume death, first aid must continue until medical help arrives or the first aider is physically unable to continue.

First Aid Equipment

- Each worksite must be equipped with first aid services, first aid equipment, supplies and first aid room if/as required by regulatory requirements.
- The expense of furnishing and maintaining first aid equipment and services will be at the expense of Pidherney's.
- First aid equipment supplies, and facilities must be kept clean. First aid equipment and supplies are maintained in a clean, dry and serviceable condition, will be in a container large enough so that each item is in plain view, contained in a material that protects the contents from the environment, be readily and easily accessible at any time an employee works in the workplace and be clearly identified as first aid equipment and supplies.
- First Aid supplied must be inspected monthly to ensure that they meet or exceed the minimum requirements of first aid kits according to regulatory requirements as related to the type, number and specification of required kits.

FORMS - See Appendix B

- First Aid Report Form
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18.9 FLAMMABLE AND COMBUSTIBLE SUBSTANCES

Workers that handle or work around flammable or combustible substances must be trained in the safe handling, use, storage and disposal of the substance and shall be familiar with the MSDS for the substance.

Where the work or manufacturing processes involve the use of a flammable liquid, vapor or gas, the concentration of that substance in the work area shall be maintained a minimum of 10% below the lower explosive limit (LEL) of the substance involved.

A class ABC fire extinguisher must be readily available when working with or near flammable and combustible liquids. In addition, waste material contaminated with a solvent, oil, grease, paint, or other flammable substance shall be placed in covered metal containers before disposal and shall not accumulate in the work area.

Safe Handling & Storage Flammable Substances

Flammable and combustible substances stored or used at Pidherney's worksites are subject to the following restrictions:

- Shall not be stored in quantities sufficient to produce an explosive atmosphere if inadvertently released.
- Shall not be stored within 30 meters of an underground shaft.
- Shall not be stored in the immediate vicinity of an air intake for ventilation supply systems, internal combustion engines, furnace/heaters, or any other sources of ignition. This includes cigarette smoking, sparks from welding or grinding, open-flames, etc.
- Shall be stored separately from substances that may cause a reaction, such as an oxygen tank.
- Shall be stored in approved containers. In addition, flammable liquids must be stored in a flammable storage cabinet with adequate ventilation.

Garbage

Where garbage may constitute a fire-hazard is present at a place of employment, Pidherney's will provide covered receptacles for the garbage that are suitable to the nature of the hazard.

Internal Combustion Engines

Pidherney's will ensure that an internal combustion engine in a hazardous location has a combustion air intake and exhaust discharge that are;

- Equipped with a flame arresting device or located outside the hazardous location.
- At a temperature lower than the temperature that would ignite a flammable substance present in the hazardous location, or
- Shielded or blanketed in such a way as to prevent any flammable substance present in the hazardous location from contacting the surface.

Safe Handling & Storage of Compressed and Liquefied Gas

Pidherney's will ensure that:

- Compressed or liquefied gas containers are used, handled, stored, and transported in accordance with the manufacturer's specifications.
- A cylinder of compressed flammable gas is not stored in the same room as a cylinder of compressed oxygen, unless the storage arrangements are in accordance with Part 3 of the Alberta Fire Code (1997),

- Compressed or liquefied gas cylinders, piping, and fittings are protected from damage during handling, filling, transportation, and storage,
- Compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and
- Oxygen cylinders, valves, regulators, or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease.

Note: If work requires that the contents of metallic or conductive containers be transferred from one container to another, the worker must ensure that static electricity is controlled by properly grounding or bonding the containers.

18.10 GAS DETECTION

Oxygen deficiency, exposure to toxic gases and explosive atmospheres are all too often responsible for injuries and fatalities that could have otherwise be prevented. In accordance with regulations and industry best practices, the only way to verify that atmospheric conditions are safe is to use an atmospheric or gas detection monitor.

Gas Monitor

A gas monitor is an important piece of safety equipment used to test and to continually monitor and alarm of any changes in the atmosphere that may be harmful to workers.

Workplace environments can be harsh and gas monitors are subjected to rigorous environmental conditions in a variety of applications that can affect operation. Instruments can become physically damaged. Sensors can be damaged by gas concentrations that exceed their detectable limit. Sensor ports on the instrument can become obstructed by liquid and particulate materials that can prevent the movement of the target gas. For example, if the sensor's or instrument's external filter is covered with dirt and oils, it may become impermeable to gas and gas molecules will not be able to enter the sensor. Any sensor or filter blockage will result in no change in the displayed readings even though the atmospheric conditions may have changed. Effectively, the gas detector is not responding to changes in gas concentrations in the atmosphere.

To verify that your monitor is responding to gas, a bump test must be conducted each day before use. The bump test exposes the detector to a gas concentration that exceeds the alarm set-points to confirm the sensor's ability to respond. Manually verify that the audible and visual alarms are activated. Taking less than a minute, a functional (bump) test is easy to perform and will ensure that the gas detector is responding, and the gas path is not blocked.

Verifying the proper performance of you gas detector is mandatory, more importantly it is part of keeping you and your co-workers safe.

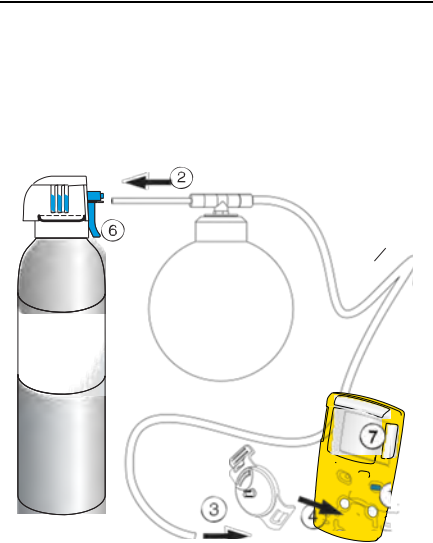
Bump Test Procedure

Prior to bump testing your gas monitor, ensure the following;

- Check the MFG date on the label of the bump gas cylinder; gas mixtures have a shelf life of one year. *i.e. MFG date: Jan-13, the expiry date would be Jan-14.*
- H₂S is heavier than the other gases found in the bump gas cylinder, gentle turn the cylinder upside down and upright 4 to 5 times to ensure the gases are mixed.

Bump Test with Gas and Balloon Adapter

- 1) Activate the gas detector.
- 2) When the detector is in normal operation, attach the short end of the balloon adapter tubing to the gas cylinder nozzle.
- 3) Attach the long end of the balloon adapter tubing to the calibration/test cap supplied with the detector.
- 4) Attach the test cap to the detector. It fits in the little grooves on a side and then just push down until you hear it click. Note: the test cap will only fit on the detector one way.
- 5) Bend the tubing between the balloon and detector and hold.
- 6) Squeeze and hold the release on the gas cylinder for 3 to 5 seconds, partially filling the balloon. Release the bend in the tubing to expose the sensor to an even flow of test gas.
- 7) Visually inspect the LCD to ensure the sensor reading(s) has exceeded the alarm threshold.
- 8) Verify the audible, visual and vibrating alarm response to target gas (es).



Bump Test without Balloon Adapter



- 1) Activate the gas detector.
- 2) When the detector is in normal operation, attached the hose that is attached to the test cap to the gas cylinder. Note: you will need an adapter for the hose to fit on the cylinder nozzle.
- 3) Attach the hose with the adapter to the bump gas cylinder nozzle.
- 4) Attach the test cap to the detector. It fits in the little grooves on a side and then just push down until you hear it click. Note: the test cap will only fit on the detector one way.
- 5) Squeeze and hold the release on the gas cylinder for 2 to 4 seconds (approximately a teaspoon of gas).
- 6) Visually inspect the LCD to ensure the sensor reading(s) has exceeded the alarm threshold. The alarms on the detector should sound within 15 seconds after introducing the gas. Verify that the gas readings on the detector are approximately half of the value on the bump gas cylinder.
Example –

Bump Gas Cylinder Concentration	Reading on Detector (approx. readings)
• H ₂ S 60ppm	30 ppm
• Methane (LEL) 50%	25%
• Carbon Monoxide 100 ppm	50 ppm
• Oxygen 13% by volume	Below 20.9 %
- 7) After verifying the reading(s) on the detector, the sensors should go back to zero (oxygen should be at 20.9%) within 1 minute. If not, one of the sensors could be dirty and needs replacement. Please contact the Safety Department to request a new gas monitor.

For the above two methods, if the detector fails to respond;

- Clean or replace dirty sensor screens
- Consult the detector's user manual.
- Contact the Safety Department to request another gas monitor.

Note: SDS for bump gas cylinder is to be on site with the gas monitor.

Responsibilities

It is the responsibility of the worker utilizing the monitor, to both carry out and record bump testing as it is completed. Pidherney's will ensure workers are carrying out these tests as required and documenting them accordingly.

Calibration

Monitors are to be calibrated at minimum every 90 days by competent personnel

Atmospheric Testing

Atmospheric testing is a complex process which involves an understanding of sensors, the calibration of monitoring equipment, the setting of alarm levels, and the interpretation of test results. Atmospheric testing of confined spaces must only be carried out by those who have the necessary training and experience to conduct the testing.

The atmosphere must be tested:

- 1) for oxygen,
- 2) for combustible gases, and then
- 3) for toxic gases and vapors.

The following must be considered when conducting atmospheric testing:

- Testing must be completed no more than 20 minutes prior to entry.
- All of the manufacturer's operating instructions must be followed.
- Monitors must be bump tested prior to the job and daily thereafter to ensure proper function. (*Refer to Bump Testing Procedure*)
- The atmosphere must be tested at the bottom, top, and middle of all confined spaces.
- The atmosphere must be continuously monitored while work is being conducted in the confined space by utilizing personal monitors.
- Document the atmospheric readings at least once every hour on the Confined Space Permit. Remember to test at different
- If the confined space is left for any reason, the atmosphere must be re-tested before re-entering the space.

FORMS - See Appendix B

- Bump Test Log
- Calibration & Gas Response Report
- Gas Monitor Calibration Record

18.11 GROUND DISTURBANCE

It is Pidherney's policy to complete a Ground Disturbance Checklist/Permit before conducting ground disturbance. All Pidherney's supervisors will be familiar with the Alberta Provincial "Pipeline Act and Rules" and Applicable OHS Codes.

Definitions

Controlled/Search Area

The area surrounding the work area. Typically, 1 metre (3 ft) on either side of most facilities and 30 metres (100 ft) on either side of pipelines or their right-of-way's.

Crossing Agreement

A document in writing that is made any time a ground disturbance by a third party takes place within the right-of-way or within 5 metres of an underground facility where there is no right-of-way. A Crossing Agreement is commonly used as the approval document and does not mean that an actual crossing is taking place.

Direct Supervision

The Ground Disturbance Supervisor is in the immediate vicinity of work being performed and intimately aware of the job scope and its steps, capable of halting work at any instant should the need arise.

Ground Disturbance

The Alberta Pipeline Act defines a ground disturbance as any work, operation or activity that results in a disturbance of the earth except:

- cultivation less than 450mm in depth or
- a disturbance of the earth less than 300mm in depth provided it does not reduce the earth cover over a buried pipeline to a height less than that provided when the pipeline was installed.

Alberta OH&S Code Part 32 defines the Ground is disturbed if 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 only of:

- routine, minor road maintenance,
- agricultural cultivation to a depth of less than 450 mm (45 cm) below the ground surface over a pipeline, or
- hand digging to a depth of no more than 300 mm (30 cm) below the ground surface so long as it does not permanently remove cover over a buried facility.

Exemptions – The following is a list of jobs that have been identified as low risk jobs and therefore a Ground Disturbance Checklist/Permit is not required:

- Pounding in wooden survey peg to depth of less than 300 mm (30 cm)
- Pushing in wire marker flags to a depth of less than 300 mm (30 cm)

Ground Disturbance Supervisor (GDS) - any competent worker, verified by formal certification (Ground Disturbance Level II training). In some cases, (based on a hazard assessment) the same person can be a Ground Disturbance Supervisor and a Spotter.

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Hand Exposure - the physical exposure of buried facilities using non-destructive excavation techniques acceptable to the operator of the buried facility.

Hand Tool - hand-held equipment that depends on the energy of the worker for its direct effect and does not use pneumatic, hydraulic, electrical or chemical energy for its operation. A pick or axe cannot be used for hand exposure.

Notification - every owner/operator of an underground facility, found within the ground disturbance area and/or controlled/search area, must be notified of the nature and schedule of the ground disturbance.

Performing Authority - the parties in charge of performing the work as defined in the Notes on the Ground Disturbance Checklist. The Performing Authority must ensure that the terms and conditions of the Ground Disturbance Checklist are acceptable, and responsibilities identified are completely understood.

Scope of Work - all ground disturbance activities contained within defined (marked) boundaries by proper line locate and hand exposure for the proposed ground disturbance work area. Any ground disturbance activity outside these boundaries will constitute a change in the scope of work and will require a new hazard assessment, pre-job meeting and ground disturbance checklist.

Spotter - the individual(s) designated by the Ground Disturbance Supervisor to aid the Ground Disturber when mechanical excavation equipment is being used within the hand expose zone of an underground facility. When encroaching inside the hand expose zone, the Ground Disturber (equipment operator) must be directed by the spotter to maintain the required 600 mm distance. The spotter must be fully visible to the operator at all times.

Underground Facility - anything located below the surface of the ground used in the collection, storage, transmission or distribution of water, storm water, sewage, electronic, telephonic or telegraphic communications, cable TV, electrical energy, oil, natural gas, steam, petroleum products, chemicals and other substances. An underground facility could range from a telephone or power cable, conduits, fibre optics, water service or pipelines carrying a variety of products to a fixed structure such as a cement piling, building foundation or underground tank.

Code of Practice

Purpose

This Code of Practice (COP) provides a process to plan and safely accomplish a "Ground Disturbance" as per applicable government legislation and helps ensure control measures are implemented that will enhance worker and public safety, protection of the environment and prevent damage of essential underground facilities.

This Ground Disturbance COP used in conjunction within the Ground Disturbance Checklist/Permit and pre-job safety meeting discussing the hazards associated with the ground disturbance are the minimum requirements necessary to ensure ground disturbance activities can be performed in the safest practical manner.

Application

This COP applies to any work site where a Ground Disturbance is being conducted such as pipeline right-of-way's, leases, pipe installations, construction sites and associated properties.

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Before undertaking a ground disturbance, all reasonable and practicable precautions must be undertaken to determine whether or not an underground facility exists.

Potential Hazards

Hazards associated with ground disturbance activities may include but are not limited to:

- a) Electrical shock (underground / overhead facilities)
- b) Potentially explosive/LEL atmospheric conditions
- c) Toxic gases, oxygen-deficient atmospheres in excavations deemed confined spaces
- d) High-pressure releases
- e) Spills or releases of hydrocarbons or other chemicals
- f) Excavation cave-ins and engulfment
- g) Equipment movement and contact
- h) Laser exposure from fibre optic/communication cable
- i) Struck by / struck against heavy equipment

Contact with underground pipelines or electrical and communication cables may result in ruptures, fire and explosions, release of toxic substances or substantial financial loss. Ruptures may have consequences ranging from loss of life to loss of services and environmental damage.

Even minor nicks and gouges on pipelines and other underground facilities are serious. Corrosion or deterioration may rapidly occur, causing leaks, possible emergencies and interruption of utilities and communication services.

Any employee or contractor who knowingly violates Pidherney's safety or regulatory standards (negligence or failure to report an incident) will receive disciplinary action. Depending on the severity of the incident, immediate dismissal or legal action may occur.

Responsibilities

Ground Disturbance Supervisor

The ground disturbance supervisor is responsible for:

- a) Ensuring that the work is conducted in a safe manner and in accordance with this COP and applicable federal / provincial legislation.
- b) Coordinating pre-job activities such as First Call tickets and facility locates.
- c) Referencing all available sources of information as far as reasonably practicable to determine the existence of all underground facilities in the proposed ground disturbance work area.
- d) Conducting a formal hazard assessment and pre-job meeting, completing and signing off on the Ground Disturbance Checklist/Permit and completing all required documentation for ground disturbance activities.
- e) Ensuring that all locates are valid and that they have not expired and have been reviewed by all ground disturbance personnel

Ground Disturbance Worker

a) Any worker involved in ground disturbance activities is responsible for:

- b) Ensuring that they have received the required training and is qualified to perform ground disturbance activities.
- c) Ensuring that locates they receive from the ground disturbance supervisor are valid and not yet expired.
- d) Ensuring that they have reviewed, understand, and have signed off on the Ground Disturbance Checklist/Permit.

- e) Ensuring that you were present for the pre-job/safety meeting prior to conducting a ground disturbance.

Documentation

Information Sources

Whether the ground disturbance is to take place on public or private land, the Alberta Occupational Health and Safety Code requires that all buried facilities potentially in conflict with the ground disturbance be identified and their horizontal alignments marked before the ground disturbance begins.

- a) **Maps / Plot Plans** – The owner of facilities should have records of their pipelines and facilities for leases and pipeline right-of-way's.
- b) **AER** – Licensed pipelines with operating pressures above 700 kPa are registered with the ERCB. Township plans (base maps) showing registered pipelines are available and can be obtained through the local AER office, if applicable.
- c) **One-Call Systems** – Alberta One Call provides free advisement and help to employers and contractors undertaking ground disturbance activities.
Alberta One Call 1-800-242-3447 www.albertaonecall.com or ClickBeforeYouDig.com
- d) **Land Titles** – Certificates of title – to determine if a right of way, easement or caveat is registered against the property.
- e) **Landowner** – If applicable, landowners may have knowledge of underground facilities not documented elsewhere, especially if they have installed something themselves.
- f) **Visible Markers** – Check the proposed work area for pipeline and utility markers. Cross-reference the contact list and ensure the company named has been contacted for additional information.
- g) **Rural Gas Utilities** – There are several maps available that provide essential information on rural gas utilities commonly referred to as Gas Co-ops (Contact the local branch for assistance.)

Ground Disturbance Checklist and Permit

The applicable regulatory agreements, permits, licenses and approvals can change in accordance with the work being performed. All applicable permits, licenses and approvals must be obtained prior to the commencement of any work including re-entry on registered right-of-way's except in an emergency.

The Ground Disturbance Checklist / Permit, is a tool to help workers follow the COP and comply with applicable regulations. It is task specific and required for all ground disturbances.

The Ground Disturbance Checklist/Permit must be completed prior to the commencement of any ground disturbance activity, and must be signed off by:

- a) All workers involved with the ground disturbance activity
- b) Onsite supervisor, after verifying that all information is correct.

Limitations

Upon any change in scope of work, Pidherney's Ground Disturbance Checklist/Permit is considered void and all work must stop until a new Ground Disturbance Checklist/Permit is completed and reviewed.

Pidherney's Ground Disturbance Checklist/Permit is considered valid for the scope of work up to a maximum of 7 working days.

Buried Facility Operators

Buried facility operators are those with the right to bury facilities in public road allowances, public right of way's, utility right of way's and highway right of way's. Buried facility operators may also have buried facilities within private property. They may own a particular buried facility or they may have administrative or operational control of it. Buried facility operators include public utilities, cooperative utilities, municipal utilities, oil and gas production and transmission entities, trunk and sewer and water entities and government departments.

As a general statement, buried facility operators provide or transport goods and services for customers or end users.

Privately Owned Buried Facilities

Privately owned facilities are best described as those that have been designed and installed and are maintained by a landowner or the landowner's agent solely for that landowner's benefit.

Private landowners include homeowners, farmers, ranchers, schools, colleges, universities, shopping centers, office parks, trailer parks, condominium and townhouse complexes, hospitals, military bases, exhibition parks, manufacturing complexes and other privately-owned developments.

Many of these developments have their own internal sewer, water, telecommunication, communication, electric and gas distribution systems, which, although ultimately connected to the various "utility" systems, are not considered the responsibility of those "utilities".

Notification

Regulations have set guidelines for notification to the facility owner/operator of the company's intent to cause a ground disturbance within the proposed ground disturbance work area and the search of controlled areas.

Notification must be received by the facility owner/operator a minimum of 2 working days and no more than 10 working days before the commencement of the ground disturbance. National Energy Board (NEB) minimum notification is 3 working days. Working days do not include Saturdays, Sundays, or Statutory Holidays. This notification timeframe is written in the Crossing Agreement and generally demands that notification be completed within a specific time frame.

Notification is most commonly performed through Alberta One Call, but if the owner is not a member notification must still be performed as previously stated.

Requesting a Locate through Alberta One Call

The following information is required to process a locate request:

- contact information;
- exact ground disturbance location;
- who the work is being done for;
- estimated time required to do the locates; and
- date by which locates need to be completed.

Alberta One Call maps out the area and notifies members with buried facilities in the vicinity of the proposed ground disturbance with an assigned ticket number.

Crossing Agreements

Before any ground disturbance work is to take place in the right of way of a pipeline or within 5 metres of a pipeline where there is no right-of-way (Caution: within 30 m for Federally Regulated Pipelines), a written Crossing Agreement is required.

Possession of Crossing Agreement

A copy of the Crossing Agreement must be in possession of Pidherney's site foreman and the following critical information should be noted:

- a) The placement of facilities within the ground disturbance area in relation to any existing facilities.
- b) Proper support methods of exposed facilities.
- c) Distances that must be maintained between underground facilities.
- d) Notification time frames for underground facilities, if different from regulations.
- e) Every facility owner/operator performs a documented backfill inspection.

Changes or Conflict with Crossing Agreement

Crossing Agreements do not allow for changes to be made at the site level. No course of dealings between two parties can change the agreement unless it is in writing and signed by the same parties who signed the original agreement.

Where there is a conflict between any Crossing Agreement, this COP or the regulations, the requirement with the most stringent standards will take precedence.

Note: Each company provides different specifications and conditions on Crossing Agreements and, as such, these Crossing Agreements are legal documents and must be thoroughly read and understood by all participants at the site.

Receiving Owner/Operator Notification

When the operators of buried facilities receive allocate request they assess the information on the ticket and determine whether or not the proposed ground disturbance will be in conflict with their facilities.

The expectation is that buried facility operators will respond to locate requests within the 2 full working days advance notice period. Buried facility operators are expected to do one of three things within the 2 full working days advance notice period:

- advise the ground disturber that there is no conflict and that the ground disturber is clear to dig; or
- complete the locates as requested; or
- make arrangements with the ground disturber for some other mutually acceptable time to provide the locates.

If a facility operator advises a ground disturber that no locate is required, Pidherney's Ground Disturbance Supervisor/Project Manager must request confirmation in writing.

An owner/operator of an underground facility, who receives notification, is required to provide reasonable assistance to the employer or contractor creating the ground disturbance as per jurisdictional regulatory requirements. Upon being notified, the owner/operator must:

- a) Provide the third party undertaking the ground disturbance with information with respect to an underground facility in existence within the proposed ground disturbance work area (30-metre controlled/search area for pipelines).

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- b) Locate on the surface of the ground the alignment of underground facility with clearly distinguishable markers at suitable intervals.
- c) Provide at no cost the locating and marking required by regulation to the third party causing the ground disturbance.
- d) Carry out such inspections that are necessary to ensure the continued integrity of their underground facility.

Note: If the “scope of work” changes for any reason, you must stop the work and reassess, revisit and review all documentation for the potential hazards created by the change.

All persons directly involved in the work must attend the hazard assessment and pre-job meeting. Ensure that any new crew members or any members not present at the hazard assessment and pre-job meeting, such as replacement workers, are informed of hazards and controls before starting the work.

Practices and Guidelines

Locating Buried Facilities

Before the ground is disturbed at a work site, the Company must:

- a) notify Alberta One Call
- b) contact the owner or the owner's designate of
 - i. a pipeline that is within 30 metres of the work site, and
 - ii. any other buried facility that may be affected by the ground disturbance,
- c) advise the owner or the owner's designate of the proposed activities,
- d) ask the owner or the owner's designate to identify and mark the location of the buried facility, and
- e) not begin disturbing the ground until buried facilities have been identified and their locations marked.

Pidherney's will ensure that workers are aware of locate marks for buried facilities.

Since the original locate marks can be disturbed or destroyed by activities at the site or with excavation, the marks must be re-established as often as necessary to ensure the safety of workers.

Locates and Marking Requirements

Due to locates being moved or altered because of potential changes to site conditions (extreme weather, moving equipment, etc.) industry and regulatory best practices provide regulated or suggested maximum time periods before locates for facilities become invalid or should be questioned and re-located. In Alberta, locates are valid for as long as the locate marks are visible but generally for not more than 14 calendar days from the date they were provided. Locates may be valid for 30 calendar days from the date they were provided subject to certain conditions being met. **Note: Pidherney's requires all locates to be located every 14 days.**

The line locating company must locate and mark all underground facilities within the work area. Pidherney's requires the Foreman to meet with locator upon arrival.

A competent locating person must conduct the line locating activity and possess a copy of the site drawing/plot plan or an as-build map, if available.

- a) The line locator must locate all underground facilities using an industry-accepted method.

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- b) When the owner/operator of an underground facility inspects a facility prior to the ground disturbance for locating and marking purposes, the owner/operator must prepare a written record of this inspection and retain it for at least two years.
- c) The utility/facility operators or their agents locating the underground facility should install a series of markers that meet the following requirements or equivalent;
 - Conform to the International Color Code for Underground Facilities;

WHITE	Limits of proposed excavation
PINK	Temporary survey marks
RED	Electric power lines, cables, conduits and ducts or lighting wires and cables
YELLOW	Gas, oil, petroleum, steam or gaseous materials
ORANGE	Telecommunications, communications, alarm or signal lines, wires, cables, conduits or ducts (Revised TR13-09)
BLUE	Potable water lines or pipes
GREEN	Sanitary sewer, storm sewer, culvert or drain lines
PURPLE	Irrigation, reclaimed water or slurry lines or pipes

- In a congested facility, an alternate color-code scheme may be utilized; however, all parties involved prior to the ground disturbance must understand it.
- Be spaced not more than 5 metres apart or, where pipes follow a curve, spaced so that the curvature is clearly visible.
- Pipeline Rules - Extend at least 30 metres beyond the proposed ground disturbance work area and be positioned directly above the centerline.
- Re-establish and maintain locate stakes following completion of topsoil stripping for the entire duration of mechanical excavation.
- Note: if for any reason a locate stake becomes displaced (i.e. due to weather or mechanical traffic), you must maintain the position of the locate. This may involve re-locating prior to excavation taking place.
- Form a cross consisting of two stakes at the point where the two pipelines intersect on the right-of-way.
- Be marked with appropriate colored surveyor's tape to a stake or wire flag driven to a depth of less than 30 cm.
- Clearly mark the owner/operator name on each marker. This is critical at the point where the facility is to be exposed by hand.

Note: as an additional aid, some locating companies mark the approximate pipeline depth on markers if requested. Remember, depth accuracy is only an approximation and not to be solely relied upon.

Hand Expose Zones

The hand expose zone is a distance 1m each side of the locate marks within which excavation with mechanical equipment must not take place until the buried facility has been hand exposed and is clearly visible. This hand expose zone applies to all buried facilities except pipelines and some buried electrical facilities.

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The hand expose zone for, AER pipelines is 5 m, and NEB is 3 m.

Some operators of buried high voltage electrical facilities have implemented hand expose zones greater than 1 m. locate documentation will advise the ground disturber of any such specific instances.

Hand Exposure

The hand exposure process shall begin at or near the location marks and work down and outwards into the hand expose zone until the buried facility is found.

All existing underground facilities in the proposed ground disturbance work area shall be exposed at suitable intervals by hand or hydrovac and identified for size and alignment prior to mechanical excavation.

For underground utilities that run parallel to and within 5 metres of an existing line, the existing line should be hand exposed or hydrovac at suitable intervals to accurately confirm line size and alignment.

Hydrovac and/or hand-exposed trenches should be a minimum of 600 mm deeper than the intended depth of excavation to confirm any lines situated below will not be contacted.

Hydrovac and/or hand-exposed holes must be large enough and suitably spaced to confirm line size and alignment (watch for underground facilities that have 90° turns or field bends).

If the Ground Disturbance Supervisor (GDS) has made a reasonable attempt to hand expose a buried facility but cannot find it, he or she will contact the facility operator for help. If the ground disturber does not know how to contact the facility operator, they should contact Alberta One-Call and provide them with the active ticket number, so the appropriate facility operator can be contacted for assistance.

Prior to hand exposure activities, the GDS will confirm with the buried facility operator whether or not the buried facility operator must or will be present during hand exposure activities.

Once the buried facility has been hand exposed and is clearly visible, the use of mechanical equipment within the hand expose zone is at the discretion of that buried facility operator. Mechanical equipment may be used to remove asphalt or concrete surface materials in the hand expose process. Once the hard surface material is removed, hand exposure will commence to ensure line location.

Hydrovac pilot holes are required for the installation of all pilings and rig anchors that will be installed with mechanical equipment within 5 meters of an underground facility.

If at any time an exposed underground facility becomes covered due to soil subsidence, sloughing, water, snow, or any other debris, the facility must be re-exposed by hand exposure techniques acceptable to the facility owner/operator.

Note: Exercise caution when using a hydrovac to locate cables or plastic pipes. Remember line locates prior to hydrovacating and probe pressure must be regulated so cable coatings are not damaged or cause an electrical hazard. In addition, the hydrovac fluid pressure and temperature must be maintained at suitable thresholds to protect the integrity of the underground facility.

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Note: All hydrovac holes are to be identified with markers and covered to prevent injury. Hydrovac holes are to be identified on the site plans, after they have been backfilled, they should be checked off on the site plans that they have been backfilled.

Note: When work and/or backfill inspections are complete, all hydrovac holes shall be appropriately backfilled/covered as per compression expectations of the area and regulatory requirements regarding hole coverings and good housekeeping practices.

Pidherney's will ensure that any exposed buried facilities are protected and supported so that workers are not injured. If a pipeline is exposed during a work operation, the pipeline operator or licensee must be notified before backfilling the excavation.

AB Pipeline Rules

Mechanical Excavation

When mechanical excavation equipment is used within hand expose zone of any underground facility, the responsible licensee for the facility will do everything reasonable to ensure the safety of the facility. The spotter must direct the equipment operator, and Pidherney's site foreman must DIRECTLY supervise the activity. The spotter must be fully visible to the equipment operator at all times.

Within 600 mm (60 cm)

Mechanical excavation equipment cannot be used within 600 mm (60 cm) of the exposed underground facility, unless:

- a written approval is obtained from the facility owner; and
- the excavation is done under the direct supervision of a representative of the owner/operator of the underground facility.

If a greater distance was specified in the Crossing Agreement, it must be followed, unless otherwise stipulated.

Angle Crossing

Crossing of underground facilities should generally be undertaken at an angle of approximately 90°. If, in certain situations it may be required to cross at angles less than 90° then the following practices will apply:

- a) Locate the centerline of the underground facility on the right-of-way and hand expose the crossing point.
- b) The existing underground facility shall be hand exposed at two additional points. Markers and color-coded survey tape shall be placed directly above the existing underground facility at 1-metre intervals for the extent of the proposed excavation.
- c) Measure 1 metre on either side of the existing underground facility and install markers with color-coded survey tape at 1-metre intervals parallel to the existing underground facility to cover the extent of the proposed excavation.

Directional Drilling or Boring

If any underground facility is being crossed by means of horizontal directional drilling or boring operation, the facility being crossed must be fully located and exposed by hand exposure/hydrovac to verify the depth, position and alignment. Hand exposure holes must be in the bore path and minimum of 60 cm below and to either side of the facility (as per Alberta P/L Regulations 65(5)). A spacing distance of 30 cm of pipelines must be maintained (as per CSA Z662, Table 4.9).

Trenches and Excavations

(Refer to Pidherney's Excavation and Tunneling)

Backfill Inspections – when required by Facility Operator

Once any part of an underground facility is exposed, Pidherney's On-site Foreman/Representative shall confirm that the owner/operator is notified at least 24 hours prior to backfilling. Upon being notified, the owner/operator must inspect the exposed part of the underground facility to ensure no damage has occurred.

Where an owner/operator inspects the underground facility for damage, a written record (including pictures) must be made and retained for the useful life of the buried facility.

Pidherney's On-site Foreman/Representative must demonstrate that all reasonable efforts are made to procure an inspection before backfilling. If an inspection by the third party cannot be obtained, even after discussions with the owner, then a third-party inspection with photographs must be performed.

Inspection Competency & Backfill Requirements

As part of the backfill inspection; ensure that any underground facility that has been crossed is adequately supported prior to backfill. Proper support is needed to support the facility so that soil settlement and/or external stress do not exceed the tensile stress limits of the pipeline or the facility. Any additional support required must be designed and approved by an engineer.

Backfill material will normally consist of the spoil removed from the excavation during exposure operations with appropriate construction to prevent damage to the underground facility (i.e. remove large rocks or other hard or abrasive debris prior to backfill).

Underground conduits must be covered according to the Canadian Electrical Code.

Ground Disturbance Parallel to a Buried Facility

Quite often, construction activities such as road construction or curb and gutter replacement require a ground disturbance to be conducted parallel to a buried facility.

When conducting ground disturbance parallel within 5 metres of any buried facility, hand exposing the utility shall take place in additional locations to determine its true alignment. Buried facilities, particularly shallow utilities – telephone, cable TV, electric and natural gas distribution are not necessarily installed in a straight alignment.

Direct Bury Trunk or Toll Fibre Optic Cables

Direct bury trunk or toll fibre optic cables are major communications cables that have been installed by plowing-in. They are not in a conduit or a duct structure. Operators of direct bury trunk or toll fibre optic cables may require that an inspector be on site during hand exposure and/or crossing activities. Any such requirement will be included in the locate documentation together with the advance notice and required contact information.

Frozen Ground Excavations

The fact that the ground is frozen does not mean that buried utilities do not have to be hand exposed and visible before a ground disturbance takes place. In situations where the ground is frozen, you can thaw the ground or use non-destructive excavation techniques (hydrovac) acceptable to the operator of the buried utility.

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If you choose to thaw the ground, the procedures used must be acceptable to the operator of the buried utility.

Energized Power Cables

Hand exposure of energized or live high-voltage cables must not be undertaken until the electric power utility operator has been consulted for advice and assistance.

The Alberta Electrical Utility Code places an obligation on the electric utility operator to ensure that the exposure of energized power cables is done safely. The utility operator must determine if direct supervision is required, or if the work will be done in a safe manner without direct supervision which will depend on the expertise and reliability of the ground disturber and the type of buried electrical cable involved. The ground disturber may be required to participate in specific training or orientation by the electric utility operator.

In some special situations, the hand expose zone for buried electric utilities may be greater than 1 metre. The ground disturber will be advised of these situations by the locator and in the locate documentation.

Excavating Around Pipelines

Within the province, pipelines transporting fossil fuels such as natural gas, oil, and natural gas liquids, water supply and disposal lines or any other pipelines or other buried utilities associated with an energy related project and within the meaning of a "pipeline" under the Alberta Pipeline Act, are under the jurisdiction of the Alberta Energy Regulator (AER).

Pipelines that cross a provincial or national boundary are regulated by the National Energy Board. There are minor differences between the provincial and federal regulations, but their intents are similar. The requirements in this section are only applicable to provincially and federally regulated pipelines.

The area within 30 metres either side of a provincially regulated pipeline is a controlled area. The area within 30 metres of the right of way of a federally regulated pipeline is a safety zone. The pipeline operator must be notified of any intent to disturb the ground within the controlled area or safety zone and the ground disturber must request locates.

The Alberta Pipeline Act and Regulation further requires that anyone proposing to undertake a ground disturbance search an area of 30 metres beyond the limits of the proposed ground disturbance for the presence of pipelines.

A pipeline right of way has specific boundaries within which the pipeline operator has the right to construct pipelines and control activity. If the proposed ground disturbance is within the pipeline right of way, the ground disturber must obtain written permission from the pipeline operator.

Mechanical excavation equipment may not be used within 5 metres of a provincially regulated pipeline until the pipeline has been hand exposed and is clearly visible. Mechanical equipment may not be used within 600 mm of the exposed pipeline, except under the direct supervision of the pipeline operator. Mechanical excavation equipment may not be used within 3 metres of a federally regulated pipeline until the pipeline has been hand exposed and is visible.

The construction of haul or access roads and the movement of vehicles or equipment along or across a pipeline right of way, other than in the upgraded and traveled portion of a highway or

public road, have the potential to damage pipelines. Advance written permission and approval for this type of activity must be obtained from the pipeline operator.

Written permission from the operator of a pipeline to undertake activities near a pipeline may take the form of a crossing agreement or proximity agreement. These often impose stricter conditions on the ground disturber than the minimum regulatory requirements.

Transportation Utility Corridor (TUC)

The Government of Alberta established Transportation / Utility Corridors (TUCs) in and around both Calgary and Edmonton to ensure coordinated development for long-term objectives. Their purpose is to provide space for future ring road development, to accommodate utilities such as oil and gas pipelines, electric transmission lines and utility distribution systems such as sewer, water, gas, telephone, cable TV and power and to serve as open space areas in an urban setting.

If a ground disturbance is to take place within a TUC, written authorization is required before any ground disturbance occurs.

Contact of an Underground Facility

Regulations state that if during any ground disturbance activity, contact is made with a regulated underground facility that all **ground disturbance work must be stopped and the utility owner notified or Alberta One-Call, whomever the utility owner has requested to be contacted.**

A Contact could include or result in any of the following:

- puncture or crack in the facility
- scratch, gouge, flattening, or dent of the surface
- damage to the protective coating

In some cases, even if contact to a pipeline did not produce a spill, due to integrity or corrosive reasons, the contact could eventually cause a release or compromise at a later date if not identified and repaired immediately by the affected utility.

Pidherney's Incident Reporting Procedures must be followed whenever there is a contact with any underground facility.

Contact Response & Notifications

In the event of a contact, the Ground Disturbance Supervisor must immediately:

- **STOP** any ground disturbance activity (including moving the bucket) once it has become known that a facility has been hit.
- **SECURE** the site.
- **NOTIFY** Pidherney's On-site Foreman who will then notify the owner/operator of the underground facility with the location where the contact occurred and the damage that resulted.
- **FOLLOW** Pidherney's Incident Reporting Requirements.

The owner/operator or licensee of the underground facility must immediately notify the required regulatory bodies of the location where the contact occurred and the kind of damage that resulted from the contact.

Note: In cases where the ground disturbance has been terminated due to contact, the ground disturbance cannot be started again without approval of the owner/operator and possibly approval

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from the regulatory bodies. If the underground facility is an AER or NEB-regulated pipeline, their approval must be obtained prior to commencement of ground disturbance activities.

Training

All Pidherney's foremen, excavation operators, pipelayers, who may sign off on a Ground Disturbance Checklist are required to take Ground Disturbance Level II from an approved training facility. Workers who may be involved in the Ground Disturbance maybe required to take Ground Disturbance Level 1.

SPECIAL PROVISIONS

Installation of Posts – Non-mechanical

For post installation without the use of mechanical excavation or installation to a depth of 1 metre or less, adhere to the following minimum requirements:

- 1) IDENTIFY underground facilities
- 2) INITIATE Alberta One-Call to flag or mark any third-party facilities within 30 metres. Ensure non, one-call members known to be in the area are notified of the ground disturbance, notice must be a minimum of 2 working days.
- 3) REVIEW facility area plot plans/latest certified As-built drawings, facility locate drawings, Abadata / Accumap pipeline maps or AER pipeline plots; look for underground pipelines, communication/power lines, cables, etc. within the 30 metre search area of the proposed sign/fence post installation.
- 4) A ground disturbance package can be REQUESTED if installing posts in areas with multiple underground facilities (e.g., plant sites, major ROWs, congested areas).
- 5) CONSULT experienced operators of the area that have knowledge of past ground disturbances/underground facility installations to identity potential lines that don't show up on plot plans.
- 6) PENETRATE ground to make a pilot hole using hand probe or water pressure wand.
- 7) INSTALL fence or sign posts using hand power/non-destructive means (e.g., hand pounding or hand auguring) to a depth no greater than the pilot hole or 1 metre.

Note: Historical industry practice suggests that posts should not be installed directly over a facility to avoid hitting shallow utilities. The rule of thumb is 1 metre from the center line of the pipe on the right side of the direction of flow. If it is a congested area, the 1 metre distance might not be attainable.

Installation of Posts – Non-penetrating

When installing posts or signs using non-penetrating means (such as weighted concrete metal, etc.) blocks are the ideal method to prevent unintended contact with an underground facility. These methods can be used for temporary signage or areas where there is little risk of blocks being moved.

Safe Work Agreement

As part of Pidherney's Safe Work Program, a hazard assessment and pre-job meeting must be conducted to discuss responsibilities and job tasks, identify and control hazards, and review procedural aspects of the scope of work with all persons involved, this will also include reviewing the Ground Disturbance Checklist.

The hazard assessment and safety meeting must meet the following requirements:

- a) Encompass all safe work and procedural aspects.

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- b) Develop a plan to identify hazards and implement control measures to mitigate risks to an acceptable level.
- c) Identify first aid personnel on site and ensure first aid requirements are met as per provincial legislation.
- d) Identify firefighting equipment required and location of the same.
- e) Establish escape routes, muster points and evacuation procedures.
- f) Ensure an Emergency Response Plan (ERP) is in place and communicated to all involved.
- g) Ensure all locates are completed prior to ground disturbance. Note: when dealing with several underground locates, ensure you have locates for each one.
- h) Review locates, Crossing Agreements, Proximity Agreements with all personnel to include but not limited to;
 - Identify existing underground facilities in the proposed ground disturbance work area.
 - Identify line sizes, operating pressures and substances in lines (obtain MSDS for substances in lines and ensure they are readily available on site).
 - Identify pipeline construction material, (i.e., plastic, fiberglass or steel).
 - Identify cables and conduits.
 - Communicate how lines are marked (i.e., color-coded, stakes, pins).
 - Identify the hand exposure techniques to be used for each underground facility. Communicate what will be deemed an acceptable/unacceptable hand tool for hand exposure techniques.
 - Identify the distance that must be maintained by mechanical excavation equipment to an underground facility as well as above ground facilities such as a wellhead, vessel or tank.
 - Identify PPE needed to conduct work as well any equipment required in the event of an emergency.
 - Review isolation/lockout and tagout of pipelines, if applicable
- i) Verify cathodic protection energy sources are controlled, if applicable.
- j) Identify hazards associated with water accumulation.
- k) Identify barricading and fencing requirement(s).
- l) Determine the types of soils to be encountered and what types of sloping, trenching and shoring are applicable where personnel may enter an excavation.

Additional

- a) Most current locates must be printed out and available on site. **There are three important documents that must be printed out and reviewed;**
 - **Primary Locate Sheet – consists of facilities located, sketch legend, additional information from the utility owner.**
 - **Auxiliary Drawing (Locate Sheet) – a copy of the locate map.**
 - **Supplemental Form – Additional info - excavator caution, information in regards to damage caused by ground disturber and what is required.**
- b) Crossing/proximity agreements printed out and available on site, if applicable.
- c) Reminder – digging parallel to underground utilities that commonly do not follow a straight line, conduct additional hand exposure to determine its true alignment.
- d) Re-locates must be completed every 14 days. Note: any communication with the utility owner or locator must be written.
- e) Machine operator (ground disturber) must have a copy of the locates.

Utility Owners - Additional Information

TELUS Policy – Any Damage must be reported to **Alberta One-Call**. Crossing Agreements must be in place prior to working within 5 metres of Fibre Optic Transmission Systems (Contact rightofwayAB@telus.com).

ATCO Gas Policy – Gas lines must be inspected by ATCO Gas prior to backfilling.

FortisAlberta Policy – The Ground Disturber shall not dig or excavate within 1 metre of the area which the locator has indicated contains facilities unless and until FortisAlberta has provided its written consent to the excavation work and the method to be employed.

No FortisAlberta excavation shall take place without receiving an excavation orientation, a written site work plan hazard assessment is completed by the excavator, approved by Fortis Alberta representative and the agreement of understanding has been signed.

All Hydrovac Operator/Swamper must be trained in equipotential bonding and carry a valid training certification.

ATCO Electric Policy – The Ground Disturber shall not dig or excavate within 1 metre of the area which the locator has indicated contains facilities unless and until ATCO Electric has provided its written consent to the excavation work and the method to be employed.

ENMAX Policy – The Ground Disturber must hand dig or hydro-vac when working within 1 metre of the locate marks showing buried infrastructure.

Shaw – Shaw is registered with Alberta One-Call; you must call them directly.
Require minimum 2-5 business days' notice to process locate requests.

You are required to schedule locate marking every **10** business days during your dig.

Remember to give the Shaw locate ticket number to the locator when they mark the dig site.

Shaw facilities must be located to a distance of 5 metres in each direction from the centerline of each crossing along the cable axis.

FORMS - See Appendix B

- Ground Disturbance Permit

18.12 HEARING CONSERVATION PROGRAM

Hearing Protection

Pidherney's will ensure that hearing protection equipment is provided to the workers where workers are exposed to noise that exceeds 85 dBA and engineering controls are not practicable.

Hearing protection is designed to reduce the level of sound energy reaching the inner ear. The rule of thumb for hearing protection is: **use hearing protection when a conversation cannot carry on at a normal volume of voice from 3 feet away.**

Alberta O.H. & S. Act, Regulation and Code, Schedule 3, Table 1 provides the occupational exposure limits for noise to be followed by Pidherney's. Table 2 of this publication provides direction for the selection of hearing protection devices to be utilized under various noise levels. All hearing protection equipment provided to workers exposed to excess noise shall meet the requirements of current CSA Standard, "Hearing Protection Devices-Performance, Selection, Care, and Use". It shall be of the appropriate class and grade described in Schedule 3 Table 2.

Hearing protection will be supplied by Pidherney's and worn by employees in a posted noise hazard area. When sound levels warrant, signs requiring personnel to wear hearing protection shall be posted. Supervisors are responsible to determine the appropriate PPE standards for their areas of responsibility, train their workers in the correct use and care of this PPE, and to obtain signage where needed. All hearing protection must meet the requirements of current CSA Standard, "Hearing Protection Devices-Performance, Selection, Care, and Use".

Some typical PPE used for hearing conservation at Pidherney's include:

- **Expandable Foam Plugs** – These plugs are made of a formable material designed to expand and conform to the shape of each person's ear canal. Roll the expandable plugs into a thin, crease-free cylinder. Whether you roll plugs with thumb and fingers or across your palm doesn't matter. What's critical is the final result — a smooth tube thin enough so that about half the length will fit easily into your ear canal.
- **Pre-molded, Reusable Plugs** – Pre-molded plugs are made from silicone, plastic or rubber and are manufactured as either "one-size-fits-most" or are available in several sizes. Many pre-molded plugs are available in sizes for small, medium or large ear canals.
- A critical tip about pre-molded plugs is that a person may need a different size plug for each ear. The plugs should seal the ear canal without being uncomfortable. This takes trial and error of the various sizes.
- Directions for fitting each model of pre-molded plug may differ slightly depending on how many flanges they have and how the tip is shaped. Insert this type of plug by reaching over your head with one hand to pull up on your ear. Then use your other hand to insert the plug with a gentle rocking motion until you have sealed the ear canal.
- Advantages of pre-molded plugs are that they are relatively inexpensive, reusable, washable, and convenient to carry, and come in a variety of sizes. Nearly everyone can find a plug that will be comfortable and effective. In dirty or dusty environments, you don't need to handle or roll the tips.
- **Canal Caps** – Canal caps often resemble earplugs on a flexible plastic or metal band. The earplug tips of a canal cap may be a formable or pre-molded material. Some have headbands that can be worn over the head, behind the neck or under the chin. Newer models have jointed bands increasing the ability to properly seal the earplug.

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- The main advantage canal caps offer is convenience. When it's quiet, employees can leave the band hanging around their necks. They can quickly insert the plug tips when hazardous noise starts again. Some people find the pressure from the bands uncomfortable. Not all canal caps have tips that adequately block all types of noise. Generally, the canal caps tips that resemble stand-alone earplugs seem to block the most noise.
- **Earmuffs** – Earmuffs come in many models designed to fit most people. They work to block out noise by completely covering the outer ear. Muffs can be "low profile" with small ear cups or large to hold extra materials for use in extreme noise. Some muffs also include electronic components to help users communicate or to block impulsive noises.
- Workers who have heavy beards or sideburns or who wear glasses may find it difficult to get good protection from earmuffs. The hair at the temples of the glasses breaks the seal that the earmuff cushions make around the ear. For these workers, earplugs are best. Other potential drawbacks of earmuffs are that some people feel they can be hot and heavy in some environments.

Noise Surveys

Client Controlled Worksites

On field sites controlled by the client, Pidherney's has no control over the noise source and will abide by the Clients signage.

Pidherney's Controlled Worksites

For areas where workers are, or may be, exposed to noise in excess of 85 dBA, noise surveys shall be conducted annually, or when conditions change, such as when new noise producing equipment or procedures are introduced to a work area. Signage and policies must be modified to reflect the noise levels revealed

through testing — of course this may be a decrease in noise produced or an increase.

If a noise survey confirms that workers are exposed to excess noise at a work site, Pidherney's shall develop and implement a noise management program to ensure that all reasonably practicable measures are used to reduce the noise to which workers are exposed.

Should a Noise Management Program be required, it shall include:

- a) Education and Training** – Workers shall be trained in the hazards of noise and trained in the correct use of control measures and hearing protection.
- b) Procedures** – The noise management program shall list the methods and procedures to be used when measuring or monitoring worker exposure to noise.
- c) Signage** – Suitable warning signs will be posted around the area to warn that noise levels exceed 85 dBA.
- d) Noise Controls** – The plan will detail the PPE and/or engineering or other controls to be used to reduce the worker exposure to noise. PPE requirements will specify the selection, use and maintenance of hearing protection devices to be worn by workers.
- e) Audiometric Testing** – Audiometric testing for workers and the maintenance of the test records will be established.
- f) Annual Review** – Pidherney's shall conduct an annual review of the policies and procedures of a Noise Management Program established under this requirement. The review will address:
 - The effectiveness of the education and training plan.
 - The need for further noise measurement.
 - The adequacy of noise control measures.

18.3 HOT WORK

The following procedures were developed to maintain uniform requirements to ensure that hot work safety training, operation, and maintenance practices are communicated to and understood by all affected employees. These requirements are also designed to ensure that procedures are in place to safeguard the health and safety of all employees.

Any worker required to perform hot work activities must first be trained by a competent worker; have read and understood all applicable safe work practices and procedures; and be deemed competent to perform hot work activities.

Personal Protective Equipment

Any worker required to perform hot work activities must wear appropriate personal protective equipment (PPE) which includes, but is not limited to:

- Approved safety boots with ankle support
- Leather gloves with arm protection
- Fire retardant clothing
- Leather apron
- Welder's helmet

Hot Work Permit

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.

Three types of hazardous situations need to be considered when performing hot work:

- a) the presence of flammable materials in the equipment;
- b) the presence of combustible materials that burn or give off flammable vapors when heated; and
- c) 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.)

Hot Work

Any task requiring hot work will not commence until the following requirements are met.

- 1) A hot work permit is issued that indicates:
 - a. the nature of the hazard,
 - b. the type and frequency of atmospheric testing required,
 - c. the safe work procedures and precautionary measures to be taken, and
 - d. the protective equipment required, including a fire extinguisher in case of emergency,
 - e. no other work is being conducted below where the hot work activity is to occur (ex – welding on equipment while a worker is repairing a section below the hot work location)
- 2) the location of hot work is:
 - a. cleared of flammable or combustible materials, or
 - b. is suitably isolated from flammable or combustible materials,
 - c. is not located directly above another worker or worksite,

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- d. is clearly identified to warn nearby workers of the nature of the hazards associated with the presence of hot work in that area, or
- e. fenced off to prevent workers or equipment entering the area without authorization and a protective screen is erected around hot work area to protect any workers in the area from welding sparks and radiation;
- 3) procedures are implemented to ensure continuous safe performance of the hot work, and;
- 4) testing shows that the atmosphere does not contain
 - a. a flammable substance, in a mixture of air, in an amount exceeding 20 percent of that substance's lower explosive limit for gas and vapours, or
 - b. the minimum ignitable concentration for dust.

The Worker must ensure that all equipment meets manufacturer's specifications and is in safe working condition.

The Company must ensure that atmospheric tests are conducted at regular intervals appropriate to the hazard associated with the work to be performed.

The Company must ensure that a safety watch is conducted during hot work activity and for 30 minutes after hot work activity is completed in case of emergency. Before leaving the area the safety watch must ensure the job has sufficiently cooled before leaving the area.

The person who is designated as the safety must be competent to do so and have been trained to do this task. The safety watch will be easily identified by wearing a high vis vest to identify themselves.

When multiple hot work processes are in place the safety watch is to continually communicate with those workers to ensure open communication and continuous atmospheric testing.

Compressed and Liquefied Gas

Pidherney's mandates that:

- compressed or liquefied gas containers are used, handled, stored, and transported in accordance with the manufacturer's specifications and legislative requirements,
- a cylinder of compressed gas is not stored in the same room as a cylinder of compressed oxygen, unless storage arrangements are in accordance with Part 3 of the *Alberta Fire Code* (1997),
- compressed or liquefied gas cylinders, piping, and fittings are protected from damage during handling, filling, transportation, or storage,
- compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment,
- oxygen cylinders or valves, regulators, or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease, and
- all connections between the cylinder, hose, and regulator on all compressed or liquefied gas cylinders are thoroughly inspected before use for any leaks.
- a compressed or liquefied gas system is not exposed to heat sources that generate temperatures that may:
 - a) result in the failure or explosion of the contents or the system, or
 - b) exceed the maximum exposure temperatures specified by the manufacturer.
- a compressed or liquefied gas system is kept clean and free from oil, grease and other contaminants that may:
 - a) cause the system to fail, or
 - b) burn or explode if they come in contact with the contents of the system.

- on each hose of the oxygen-fuel system:
 - a) a flashback device is installed at either the torch end or the regulator end, and
 - b) a back-flow prevention device is installed at the torch end.
- compressed or liquefied gas cylinders are secured, preferably upright, and cannot fall or roll unless a professional engineer certifies another method that protects against the hazards caused by dislodgement. Despite the previous statement, the Company must ensure that a cylinder containing acetylene is secured and stored upright.

A worker must ensure that:

- 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, and
- compressed air is not used to blow dust or other substances from clothing.

Horizontal Cylinder Storage

Pidherney's mandates that a compressed gas cylinder that is horizontal when transported or used in a vehicle:

- a) is in a storage compartment that incorporates a structure of sufficient strength to prevent the cylinder from passing through it should the valve end of the cylinder be damaged and vent its contents in an uncontrolled manner,
- b) is in a storage compartment that incorporates a means of securing the cylinder that stops the cylinder moving within the compartment and puts the bottom of the cylinder in direct contact with the structure in clause (a), and
- c) is protected against scoring during insertion into and removal from the storage compartment.

It is also mandated that the regulator on a compressed gas cylinder is horizontal when it is transported or used in a vehicle and is protected from damage by other equipment in the storage compartment. The storage compartment on the vehicle must be certified by a professional engineer.

Handling Cylinders

A worker must not insert or remove a compressed gas cylinder from a storage compartment by holding the valve or valve protection cap.

A worker must put on and secure to the valve outlet, the valve protection cap or plug provided by the manufacturer of a compressed gas cylinder if the cylinder is not secured and not connected to dispensing equipment.

If a welding service vehicle is not in service for any reason, a worker must:

- a) close all compressed gas cylinder valves,
- b) remove regulators if they are not integral to the cylinder, and
- c) put on and secure the valve protection caps or plugs.

A worker must shut off the cylinder valve and release the pressure in the hose if a compressed gas cylinder on a welding service vehicle is left unattended.

Welding – General

When reasonably practicable, Pidherney's employees are to comply with the requirements of CSA Standard W117.2-01, *Safety in Welding, Cutting and Allied Processes*. Welding or allied process equipment must be 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.

Before a welding or allied process is commenced, the area surrounding the operation will be inspected and:

- a) all combustible, flammable or explosive material, dust, gas or vapour is removed, or
- b) alternate methods of rendering the area safe are implemented.

An operator of an electric welding machine must not leave the machine unattended without removing the electrode.

Welding must never be performed above an area where another worker may be present. The work area below must be inactive and workers in the area must be made aware of your activities.

Appropriate welding and ground leads must be utilized to fasten the electric supply cable securely.

Gas Welding or Allied Process

Regulators and their flexible connecting hose must be tested immediately after connection 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:

- a) the supply of gas must be immediately shut off by the worker performing the welding or allied process, and
- b) the work will not resume until leak is repaired.

Welding Services from Vehicles

In order to ensure gases do not accumulate and reach their lower explosive limit (LEL), solid-walled storage compartments will be provided in which compressed gas cylinders are stored with vents:

- that have a minimum of 0.18 square metres of free area for every 0.42 cubic metres of compartment volume,
- that have the free area split evenly between the top surface and the bottom surface of the storage compartment, and
- that are unobstructed under all conditions.

Pidherney's shall ensure that solid-walled compartments in which compressed gas cylinders are stored are built so that gases or vapours cannot flow into adjoining compartments. Solid-walled compartments in which compressed gas cylinders are stored must use:

- latching and locking hardware made of non-sparking materials, and
- electrical components are appropriate for use in an explosive atmosphere if electrical components are located within the compartment.

All conditions apply whether the cylinder is stored vertically, horizontally, or at an angle.

18.14 HYDROGEN SULFIDE (H₂S)

Background

Hydrogen Sulfide exposure can be fatal, the result of asphyxiation. Hydrogen Sulfide affects primarily the respiratory system. Hydrogen Sulfide is also a highly flammable gas. Hydrogen sulfide presents a potential hazard to workers at the work site. It usually occurs as an unwanted by-product and can result in worker exposure in many different industries or occupations. To ensure protection against exposure to hydrogen sulfide, both workers and employers must be aware of its properties, how it affects the body and what to do in emergency situations. The supervisor and safety department shall ensure that all personnel who will be working at the job site will be properly trained in H₂S awareness and contingency procedures.

Occurrence of Hydrogen Sulfide

Hydrogen sulfide exposures usually occur during the drilling for or production of natural gas, crude oil and petroleum products. Hydrogen sulfide is also produced by the decomposition of organic matter and may accumulate in swamps, sewers, sewage treatment plants or hide storage pits in the tanning industry. Well drillers and tunnel workers, as well as miners, may be exposed when underground pockets of hydrogen sulfide are encountered. Hydrogen sulfide may be used in the manufacture of inorganic sulfides, sulfuric acid and mercaptans. Potential employee exposures can occur during the following operations:

- Drilling Operations
- Recycled Drilling Mud
- Water from Sour Crude Wells
- Blowouts
- Tank Gauging (tanks at producing, pipeline & refining operations)
- Piping
- Field Maintenance
- Tank Batteries & Wells, etc.
- Storage & Handling Facilities

Characteristics of Hydrogen Sulfide

Hydrogen sulfide (H₂S) is a colorless gas with a powerful nauseating smell of rotten eggs. The odor is a poor warning property because hydrogen sulfide exposure quickly deadens the sense of smell. The gas is heavier than air and may collect in low areas such as sewers, pits, tunnels or gullies. High airborne levels of hydrogen sulfide (between 4.3 and 46.0 percent of gas by volume in the air) may catch fire if there is a source of ignition. If the gas is burned, toxic products such as sulfur dioxide will be formed. Hydrogen sulfide is incompatible with oxidizing agents, such as nitric acid and chlorine trifluoride, and may react violently or ignite spontaneously.

Health Effects on the Body

Hydrogen sulfide is extremely toxic. It may cause death instantaneously in high airborne concentrations. Low levels may be extremely irritating to the lungs, nose, throat and eyes.

Hydrogen sulfide can be detected by smell at levels as low as 0.13 parts hydrogen sulfide per million parts air (ppm). Odor cannot be used as a warning because the gas can deaden the sense of smell within 2 to 15 minutes in exposures of approximately 100 ppm.

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A single breath of hydrogen sulfide at about 1000 ppm may paralyze the respiratory system and result in coma and death. Convulsions may also occur. Prolonged exposure at about 250 ppm hydrogen sulfide may cause the lung tissue to swell and fill up with water (pulmonary edema).

This effect may occur after the exposed worker recovers from the irritant effects of the gas. Exposures of 20 to 50 ppm hydrogen sulfide for one hour may cause inflammation of the cornea and the delicate lining of the eye and eyelid (a condition called keratoconjunctivitis). Exposures for long periods at 50 ppm may cause severe irritation of the nose, throat and lungs. Workers exposed to lower concentrations of hydrogen sulfide may develop headaches, eye disorders and chronic bronchitis.

Scope

This program applies to any worker(s) engaged in work activities in or near an area where they may potentially be exposed to harmful levels of Hydrogen Sulfide (H₂S). In the event that Should Pidherney's be hired to perform work for another Contractor, Pidherney's shall be aware of the Contractor's contingency and emergency plan provisions. Refer to Pidherney's Code of Practice for Hydrogen Sulphide Gas.

Strict adherence to the Pidherney's Confined Space Entry Program shall be observed when employees will be working inside manholes, tanks, vessels or in other situations that fall into the Confined Space Entry Program. Employees shall be trained per the requirements of applicable safety regulations.

General

Pidherney's will ensure that all potential sources of Hydrogen Sulfide within the facility(s) or host employers are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential sources of Hydrogen Sulfide, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

Responsibility

The HSE Manager is responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Manager is the authorized to amend these instructions and is authorized to halt any operation of the Company where there is danger of serious personal injury.

Related Programs

Upon developing a pre-job hazard assessment other related programs will be identified and will be used in conjunction with this program, such as; Confined Space Entry, Respiratory Protection, etc.

Employer Responsibilities

Pidherney's ensures that a worker's exposure to H₂S does not exceed its occupational exposure limit of 10 ppm over an 8-hour time period and is not exposed at a concentration exceeding 15 ppm at any time.

In order to protect workers from the hazards of hydrogen sulfide, there are several control options available to the employer. These may include "engineering out" the hazard, putting safe work procedures in place or using administrative controls. Administrative controls involve such approaches as job rotation, work assignment or time periods away from hydrogen sulfide.

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The method(s) used will depend on the condition at the work site. If such measures are inadequate to protect workers, or in the event of an emergency, appropriate breathing apparatus providing positive pressure to the face piece must be provided. Workers must also be trained in its use. The Respiratory Protection Program chapter shall be consulted and provides information on the selection, care and use of respiratory protective equipment.

Other personal protective equipment must also be provided if necessary. If personal protective equipment is used, it must be properly selected and cared for. At the minimum, a NIOSH certified self-contained breathing apparatus or airline respirator with escape SCBA shall be used.

Worker Responsibilities

Current regulations require the worker to take reasonable care of himself and others at the work site. This includes co-operating with the employer for the purpose of protecting himself and others. The worker must:

- become aware of the associated hazards and follow work practices and procedures developed by the employer;
- wear protective equipment supplied by the employer to ensure protection and follow instructions on correct usage.

Respiratory Protection

NIOSH-certified, self-contained breathing apparatus or airline respirator with escape SCBA will be required for employees potentially exposed to hydrogen sulfide above the PEL.

In Case of an Emergency

Workers and employers both have responsibilities in emergency situations.

The employer must:

- be aware of owner's contingency plan provisions.
- have emergency procedures developed in advance of any potential emergency involving hydrogen sulfide leaks;
- ensure that workers are aware of the procedures, are trained and are adequately supervised in an emergency;
- provide workers with appropriate breathing apparatus providing positive pressure to full face pieces;
- ensure that workers use other protective equipment necessary for use in an emergency.

The worker must:

- vacate the area immediately if a sensor alarm is activated and shall not re-enter without proper respiratory protection;
- avoid breathing hydrogen sulfide while quickly leaving the area for fresh air;
- relocate an exposed person who has breathed large amounts of hydrogen sulfide to fresh air immediately. If breathing has stopped, perform artificial respiration;
- notify someone else and put into effect the established emergency rescue procedures whenever an exposed person is overcome;
- not re-enter a hydrogen sulfide-filled area of unknown concentration unless equipped with full face piece positive pressure breathing apparatus;
- be prepared to assist fellow workers, while making sure the correct emergency procedures are followed. It is important not to take unnecessary risks when rescuing or assisting a fellow worker.
- be aware of and follow provisions of site-specific contingency plans.

Requirements

The requirements of this Program are the minimum acceptable standards with regard to work activities conducted in or near areas where workers may potentially be exposed to harmful levels of hydrogen sulfide.

The authorized officer may, after consideration of all appropriate factors, require corrective actions and abatement periods that in some cases vary from those specified in this Program and that he/she determines to be necessary to protect public health and safety, or the environment.

General Requirements

Pidherney's will establish Hydrogen Sulfide operational procedures in of this document.

Facility Evaluation

Pidherney's will evaluate our facility(s) or host employer facilities to determine if any work area meets the criteria for designation as a Hydrogen Sulfide Hazard Area.

Confined Space Program

Pidherney's confined space program will be implemented when performing work in areas designated as a confined space. The confined space program will conform to the requirements of applicable safety regulations. Pidherney's shall:

- Implement the measures necessary to prevent unauthorized entry.
- Identify and evaluate the hazards of permit spaces before employees enter them.
- Pre-Entry requirements. Develop and implement the means, procedures, and practices necessary for safe confined space entry operations, including, but not limited to, the following:
 - Specifying acceptable entry conditions.
 - Isolating the permit space.
 - Purging, Inerting, flushing, or ventilating the confined space any necessary to eliminate or control atmospheric hazards.
- Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards.
- Verify that conditions in the confined space are acceptable for entry throughout the duration of an authorized entry.
- Develop and utilize checklists based on this standard practice instruction.

Equipment Requirements

- Provide the following equipment at no cost to employees, maintain that equipment properly, and ensure that employees are trained in the proper use of the equipment:
 - Testing and monitoring equipment needed to determine if hazardous conditions exist or to verify that they do not exist.
 - Ventilating equipment needed to obtain acceptable air quality entry conditions.
 - Communications equipment necessary for communication between personnel involved in the entry operation.
 - Personal protective equipment when engineering and work practice controls do not adequately protect employees.
 - NIOSH-certified, self-contained breathing apparatus or airline respirators with escape SCBA should be used.
 - Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
 - Barriers and shields as required to protect workers from pedestrian and vehicular traffic.

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- Ladders, needed for safe ingress and egress by authorized entrants.
- Rescue, Retrieval and Emergency equipment needed to extract or treat injured personnel, except to the extent that the equipment and/or service are provided by rescue services that are immediately available.
- Any other equipment necessary for safe entry into and rescue from permitted spaces at our facility.
- Principal equipment needed to conduct confined space operations. The below listed safety equipment will be maintained where required for confined space operations.
 - a) Multi-gas monitors
 - b) Ventilation equipment
 - c) Rescue tripod/davit arm and winch system
 - d) Body harnesses
 - e) Extraction cable and lanyards
 - f) Air compressors (as required)
 - g) Supplied air respirators (as required)
 - h) Air purifying respirators (as required)
 - i) SCBA equipment (as required)
 - j) Emergency escape breathing apparatus (as required)
 - k) Radio communication system (as required)
 - l) Signage (as required)
 - m) Lock-out/tag-out equipment (as required)
 - n) Intrinsically safe lighting equipment
 - o) Personal protective clothing
 - p) Hearing protection equipment
 - q) Head protection equipment
 - r) Eye protection equipment
 - s) First aid kits
 - t) Time keeping equipment
 - u) Hand tools
 - v) Escape ladders for depths of four feet or shoulder height

Procedures for Atmospheric Testing

Atmospheric testing for Hydrogen Sulfide Hazard Areas is required for two distinct purposes: Evaluation of the hazards of the work area and verification that acceptable entry conditions for entry into that area exist. Personal and/or area monitors will be used to detect H₂S. The monitors will be set to alarm when the PEL exceeds the pre-set level of 15 PPM. When an alarm sounds, vacate the area and do not re-enter without proper respiratory protection.

Evaluation Testing

Pidherney's will ensure that the atmosphere is analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise. Evaluation and interpretation of these data, and development of the entry procedure, will be done by, or reviewed by, a technically qualified professional (e.g., certified industrial hygienist, registered safety engineer, certified safety professional, certified marine engineer, etc.) based on evaluation of all serious hazards. The internal atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

- Oxygen content (19.5% - 23.5%) AB Mandated
- Flammable gases and vapors AB Mandated
- Potential toxic air contaminants AB Mandated
- Airborne combustible dusts Site Specific

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Verification Testing

The atmosphere of a work area designated as a confined space which may contain a hazardous atmosphere will be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) will be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition. The atmosphere will be verified, with a calibrated direct-reading instrument, for the following conditions in the order given:

- Oxygen content (19.5% - 23.5%) AB Mandated
- Flammable gases and vapors AB Mandated
- Potential toxic air contaminants AB Mandated
- Airborne combustible dusts Site Specific

Duration of Testing

Measurement of values for each atmospheric parameter will be made for at least the minimum response time of the test instrument specified by the manufacturer.

Testing Stratified Atmospheres

When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope will be tested a distance of approximately 4 feet (1.22 m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress will be slowed to accommodate the sampling speed and detector response. The stratified atmosphere will be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

- Oxygen content (19.5% - 23.5%) AB Mandated
- Flammable gases and vapors AB Mandated
- Potential toxic air contaminants AB Mandated
- Airborne combustible dusts Site Specific

Emergency First Aid Procedures

In the event of an emergency, institute first aid procedures and send for first aid or medical assistance in accordance with local procedures.

Eye Exposure:

Wash immediately with large amounts of water, lifting the lower and upper lids occasionally. Get medical attention as soon as possible.

Skin Exposure:

Immediately flush with copious amounts of water. Remove any contaminated clothing and flush exposed skin areas. Get medical attention as soon as possible.

Respiratory Exposure:

Get the victim to open, fresh air immediately. If breathing has stopped perform CPR. Keep the victim warm and at rest. Get medical attention as soon as possible.

Rescue Considerations:

Don't become a second victim. Move the affected person from the hazardous area. If the exposed person has been overcome, initiate local emergency notification procedures. Understand the facility's emergency rescue procedures and know the locations of rescue equipment before the need arises.

Employee Training

If a worker may be exposed to harmful levels of H₂S at a work site, the Pidherney's will identify the health hazards associated with the exposure and assess the worker's exposure. The employer must ensure that a worker who may be exposed:

- a)** is informed of the health hazards associated with exposure,
- b)** is informed of measurements made of airborne concentrations, and
- c)** is trained in procedures developed by Pidherney's to minimize the worker's exposure and understands the procedures.

A worker who is provided with training must follow the procedures appropriately and apply the training. Employees are required to complete competency training in H₂S and rescue.

18.15 LADDERS

Pidherney's understands that ladders present unique opportunities for unsafe acts and conditions. Employees who use ladders will be trained in proper selection, inspection, use, and storage.

Improper use of ladders has caused a large percentage of incidents in the workplace. Use extreme caution when ascending, descending, or working from a ladder. Ensure that you are thoroughly inspecting ladders before use and remove from service if you are wary of its condition.

Types

Ladder - an appliance usually consisting of two side rails joined at regular intervals by cross-pieces called steps, rungs, or cleats, on which a person may step while ascending or descending.

Stepladder - a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

Single ladder - a non, self- supporting, portable ladder, nonadjustable in length, consisting of but one section. The overall length of the side rail designates its size.

Extension ladder - a non, self-supporting portable ladder, adjustable in length. It consists of two or more sections, traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections, measured along the side rails.

Fixed ladder - a ladder permanently attached to a structure, building, or equipment.

Individual rung ladder - a fixed ladder: each rung of which is individually attached to a structure, building or equipment.

Cage - a guard that may be referred to as a cage or basket guard, which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

General

No worker is to use a ladder without proper training.

All ladders must be inspected before use. Check for damaged or missing rungs and any damage to sides that could affect the ladder's structural integrity. Closely inspect any areas that may have writing, stickers, paint, or dirt/mud as damage could be hidden beneath.

Any ladder that is deemed unsafe or defective is to be immediately removed from service and brought to the attention of your direct supervisor.

Restrictions

A worker is not to perform work from either of the top 3 rungs, steps, or cleats of a portable ladder unless the manufacturer's specifications allow the worker to do so. A worker may work from either of the top 2 rungs, steps or treads of a stepladder,

- a) If the stepladder has a railed platform at the top, or
- b) If the manufacturer's specification for the stepladder permits it.

No servicing of energized or potentially energized electrical equipment shall be completed from a ladder that is made of conductive material.

Constructed Portable Ladders

Any portable ladder used by a Pidherney's worker must:

- a) Be constructed of lumber that is free of loose knots or knot holes,
- b) Be a length of 5 metres or less has side rails constructed of lumber measuring no less than 38 millimetres by 89 millimetres,
- c) More than 5 metres long has side rails of constructed lumber measuring no less than 38 millimetres by 140 millimetres,
- d) have side rails that are not notched, dapped, tapered, or spliced,
- e) have side rails at least 500 millimetres apart at the bottom, and
- f) have rungs that are
 - constructed of lumber measuring no less than 21 millimetres by 89 millimetres,
 - held by filer blocks or secured by a single continuous wire, and
 - uniformly space at a centre to centre distance of 250 millimetres to 300 millimetres

Any 2-way constructed portable ladder must be wide enough to permit traffic in both directions at the same time and must,

- a) have a centre structural rail along the length of the ladder,
- b) be at least 1 metre wide, and
- c) be constructed of materials that are substantial enough in size to accommodate the maximum intended load.

Manufactured Portable Ladders

Dependant on the ladder to be used, Pidherney's will ensure that portable ladders meet both current CSA and ANSI requirements.

Securing & Positioning

A worker must ensure that:

- a) a portable ladder is secured against movement and placed on a base that is stable,
- b) the base of an inclined portable ladder is no further from the base of the wall or structure than $\frac{1}{4}$ of the height to where the ladder contacts the wall or structure (4:1 ratio), and
- c) the side rails of a portable ladder extend at least 1 metre above a platform, landing or parapet.

Fall Protection when using ladders

Work where the potential exists for a worker to fall 3 metres or more must use a personal fall arrest system. This does not apply while the worker is moving up and down the portable ladder.

If it is not reasonably practicable to use a personal fall arrest system, a worker may work from a portable ladder without fall protection if

- a) the work is a light duty task of short duration at each location,
- b) the worker's centre of balance is at the centre of the ladder at all times, even with one arm extended beyond the side rails of the ladder, and
- c) the worker maintains 3-point contact whenever the worker extends an arm beyond a side rail.

18.16 LOCKOUT AND TAG OUT

The following procedure is provided for use in both lockout and tagout programs. This procedure may be used when there are a limited number or types of machines or there is a single power source. For more complex systems, a more comprehensive procedure will need to be developed, documented, and utilized.

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before employees perform and servicing or maintenance where the unexpected energization or start-up of the machine or equipment, or the release of stored energy could cause injury such as minor to serious shock, burns (chemical or thermal), cuts, or abrasions.

All employees are required to comply with the restriction and limitations imposed upon them during the use of lockout. Lockouts are to be performed, in accordance to this procedure, by competent and authorized personnel only. Any employee whose work operations are or may be in the area shall be instructed in the purpose and use of lockout or tagout procedures. Workers must be deemed competent prior to performing any lockout or tagout procedure and prior to commencing work on an isolated system. Under no circumstance shall any employee attempt to start, energize, or use a machine or piece of equipment that is locked out or tagged out for servicing or maintenance.

Isolation of Energized Sources

If machinery, equipment, or powered mobile equipment is to be serviced, repaired, tested, adjusted or inspected, Pidherney's will ensure that no worker performs such work on the machinery, equipment, or powered mobile equipment until it has come to a complete stop and energy sources have been isolated.

Procedures for isolation are as follows:

- 1) Prior to beginning work on any piece of equipment that could start-up, move or release stored energy, all employees and contractors will de-energize the equipment.
- 2) Employees and contractors will then lock-out any valve, switch, breaker, or other control which supplies energy to the equipment. All employees and contractors will then attach a dated and signed tag that indicates the reason for the lockout.
- 3) Before carrying out any further work on the equipment, the employee or contractor will appropriately test the equipment to ensure that it is in fact de-energized.
- 4) Each employee who routinely is required to lock out controls shall be issued personal locks and keys which shall only be used for isolating equipment while that employee services the particular piece of equipment.
- 5) When more than one employee works on a piece of equipment, each will apply his or her lock to the appropriate control.
- 6) A lock will only be removed by the person who installed it. The lock will be removed only, when the person who installed it is satisfied that it is safe to do so. The person removing the last lock will only do so when he or she is satisfied that it is safe to re-start the equipment.
- 7) No-one, other than the person who installed it, shall remove a lockout lock. In exceptional cases, the Supervisor responsible for the work may remove a lock after being satisfied that it is safe to start the equipment. The supervisor will immediately report such action to the Safety Coordinator.

At the end of every shift where Lock out tag out has been installed, the Supervisor/Foreman will perform an audit of the LOTO to ensure that any locks in place are removed. and/or authorization has been given to remove locks in accordance with energy isolation procedure. (i.e. alternate worker performing work on energy source).

Abandoned Lock Removal Protocol

The only time a lock will be removed by another person other than the original person who put the lock on will be in the case of an emergency and only when the following procedure has been adhered to:

- 1) The supervisor shall be informed that a lock needs to be removed and that the person assigned the lock cannot be located.
- 2) The supervisor will make every effort to contact the lock owner and document these attempts on the attached form.
- 3) The supervisor shall then contact HSE to request their attendance at the area for the inspection and lock removal. If no person from HSE is available, the Supervisor, or Equipment manager
- 4) At least one employee representative will be present during the inspection of the area and lock removal.
- 5) If the person cannot be located and the area in question has been inspected and is clear of any hazards to anyone, the lock may be opened.
- 6) The supervisor shall be responsible for filling out and distributing the **Abandoned Lock Removal Form**.

A copy of the **Abandoned Lock Removal Form** and the lock information shall be forwarded to HSE for follow up.

ABANDONED LOCK REMOVAL FORM

Date Removed: _____
Authorized Employee: _____
Lock Location: _____
Notified by Phone: _____
Notified by Person: _____

Authorized Employee Verification and Supervisor

Name: _____
Signature: _____
Name: _____
Signature: _____

Isolation of Piping for Pigging

Each Pigging/Swamping practice will vary, a pre-job meeting will be held prior to operation.

To isolate piping or a pipeline containing harmful substances under pressure, Pidherney's will have:

- a) A system of blanking or blinding, or
- b) A double block and bleed isolation system, providing
 - i. 2 blocking seals on either side of isolation point, and
 - ii. an operable bleed-off between the two seals.

Pidherney's mandates that piping that is blanked or blinded is clearly marked to indicate that a blank or blind is installed. Valves or similar blocking seals with a bleed-off valve between them must be used to isolate piping. The bleed-off valve must be secured in the "OPEN" position and the valves or similar blocking seals in the flow lines must be functional and secured in the "CLOSED" position.

Pidherney's will ensure that the device being used to secure valves or seals is:

- a) a positive mechanical means of keeping the valves or seals in the required position, and
- b) is strong enough and designed to withstand inadvertent opening without the use of excessive force, unusual measures, or destructive techniques.

If it is not reasonably practicable to provide blanking, blinding or double block and bleed isolation, the Company must ensure that an alternate means of isolation that provides adequate protection to workers and is certified by a professional engineer is implemented.

Pigging and Testing of Pipelines

A person who is not directly involved in a pigging and testing operation must not be in the immediate area of piping exposed during the operation.

A pig catcher on a pipeline must be isolated from the pipeline and depressurized before the pig is removed.

No workers shall be 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.

18.17 MANUAL MATERIAL HANDLING

Administrative Duties

The HSE Manager is responsible for developing and maintaining the Lifting & Handling Loads Program. These procedures will be kept in the HSE Managers office.

Equipment

Pidherney's will provide, appropriate equipment for lifting, lowering, pushing, pulling, carrying, handling or transporting heavy or awkward loads. Workers must use the equipment provided for lifting, lowering, pushing, pulling, carrying, handling or transporting heavy or awkward loads.

Adapting Heavy or Awkward Loads

If equipment is not reasonably practicable in a particular circumstance or for a particular heavy or awkward load, Pidherney's will:

- a) adapt the load to facilitate lifting, lowering, pushing, pulling, carrying, handling or transporting the load without injuring workers, or
- b) otherwise minimize the manual handling required to move the load.

Assessing Manual Handling Hazards

Before a worker manually lifts, lowers, pushes, pulls, carries, handles or transports a load that could injure the worker; a hazard assessment must be performed using the following considerations:

- the weight of the load,
- the size of the load,
- the shape of the load,
- the number of times the load will be moved, and
- the manner in which the load will be moved.

Musculoskeletal Injuries (MSI) Prevention

If a worker reports what the worker believes to be work related symptoms of a musculoskeletal injury, Pidherney's will promptly:

- a) review the activities of that worker, and of other workers doing similar tasks, to identify work-related causes of the symptoms, if any, and
- b) take corrective measures to avoid further injuries if the causes of the symptoms are work related.

General

Musculoskeletal injuries, or MSI's.

The demands (if they are high enough) placed on the body from daily activities can cause musculoskeletal injury. Musculoskeletal injury occurs when there is a mismatch between the physical capacity of workers and the demands of the job.

Common factors associated with MSI include; repetitive motions of sufficient intensity and duration that it does not allow the affected muscles to recover; performing an activity in an awkward or unnatural posture; maintaining the same position/posture for prolonged periods; failing to take frequent short recovery breaks (when performing demanding tasks) and force.

Recognizing Musculoskeletal Injury - Early signs and symptoms may include:

- Pain
- Redness

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- Swelling
- Numbness and Tingling
- Loss of range of movement - difficulty moving a particular body part.

The following stages of MSI include;

- Early stage: the body part aches, feels tired at work but symptoms disappear when away from work. It does not interfere with ability to do work.
- Intermediate: body part aches and feels weak soon after the state of work, and last until well after work has ended.
- Advanced: body part aches and feels weak even at rest. Sleep is affected, and even light tasks are difficult on days off or vacation.

Causes

Forceful Exertion: effort that places high loads on the muscles, tendons, ligament and joints of the body increases the body's energy demands and the possibility of injury.

3 basic types of force;

- Gripping Force: Handlings tasks that require high levels of grip force or excessive bending or sideways twisting of the wrists can cause excessive stress on the tendons and pinching of the nerves in the wrists. Lifting bulky or unwieldy loads often requires awkward position of the wrists.
- Lifting, Lowering, and Carrying Force: Lifting even the lightest of objects using an awkward lifting posture can result in injury to the spinal discs and soft connective tissues of the lower back.
- Pushing and Pulling: Pushing and pulling motions may also cause injuries to workers, particularly in the shoulder and upper back regions. When assessing risks, remember to consider smaller muscles that have to exert force, such as the muscles of the hands when pulling. Optimally, it is better to push rather than pull a load, although pushing loads may present other hazards such as restricted vision. If workers have to pull loads, they should adopt a safe method of pulling or, if practicable, use mechanical equipment. In general, pushing and pulling are safest when done between shoulder and elbow heights. Working outside this range increases the risk of injury. Outside this range increases the risk of injury.

Contact Stress: this occurs when parts of the body come into contact with hard or sharp objects and can injure nerves and tissues beneath the skin by interfering with normal blood flow and nerve function.

Awkward Postures: awkward postures occur when using your body outside of a neutral body position (position of optimal strength). An awkward posture is when any part of your body bends or twists excessively, outside a comfortable range of motion working in an awkward posture increases the stress on your muscles, tendons, ligaments, and joints. You are at greater risk for injury if you have to hold the posture for a long time, or if other risk factors, such as force, are present.

Environmental Conditions: cold temperatures produce a reduction in the hands ability to feel (tissue sensitivity), function and grip strength. It also makes muscles and joints stiffer and increase reaction time. As a consequence, worker must use greater force to grip and hold hand tools, lifting or forceful exertion when chilled; stiff joints and muscles increase the risk of injury.

Supervisor Responsibility

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- Ensure everyone under your supervision is aware of MSI hazards on the job and is trained to do the job safely.
- Look for MSI hazards during workplace inspections, job task and discussions with workers.
- Be aware of MSI warning signs and indicators.
- Take action on reported MSI hazards and concerns and follow up with workers.

Worker Responsibility

- Know and report MSI symptoms and hazards to your supervisor.
- Ensure you understand the information and instructions provided.
- Use proper working techniques.
- Use the equipment and tools provided in your workplace to reduce exposure to MSI hazards.

Prevention

Don't ignore any signs and symptoms of MSI. Recognizing and reporting them as soon as possible can help reduce any further injury. Experiencing muscular aches is normal especially when an individual begins a new job, as well as one that involves body movements that may be unfamiliar to you.

- Stretch the muscles several times a day before starting the task. Statistics have shown that the majority of injuries occur after coffee, lunch breaks, or standing/sitting for periods of time - this is because many people think of stretching at the start of the work day, but don't realize their muscles have shortened during a break and need to be stretched again.
- Myth that "bouncing" as you stretch helps muscles to stretch further.
- Bouncing is counterproductive as it can cause small tears to the muscle tissue, which are experienced as muscle soreness or tenderness.
- Instead of 'bouncing' try:
 - Concentrating on slow, sustained stretches.
 - Holding the stretch for more than 30 seconds.
 - Once the muscle feels comfortable, gently increase the stretch and then hold again.
- Planning - think about the load you plan to lift. Ask yourself;
 - Can I lift it alone?
 - Is it too awkward or heavy for 1 person to handle (rule of thumb, a worker can safely lift 50lbs without serious injury.)?
 - Do I need mechanical help such as excavator, loader, come-along, pry-bars, etc.?
 - Should I ask a co-worker for help or split the load into several smaller ones?
- Work within your physical limits, don't lift more than you are able. Use lifting devices to limit muscular exposure.
- Always perform a mental hazard assessment before lifting. Plan path, remove any housekeeping items.
- When you feel excess tension in your muscles, stop before you strain.
- Lifting -
 - Face the load, stand with feet shoulder width apart with one leg ahead of the other.
 - Lift with your leg's, and not your back and keep your back as straight as possible.
 - Avoid unnecessary twisting. Turn your feet, not your hips or shoulders.
 - Ensure you have a good grip before lifting.
 - If buddy lifting, prior to setting own, communicate and plan placement.
 - Lift in power zone - between shoulder and waist, keep object close to body core.

- When working with power tools or other hand-held objects, avoid situation where the wrist is bent for long periods of time. avoid using tools that vibrate continuously or aggressively or require prolonged pinching and gripping.

Ergonomics Training

Pidherney's ensures that a worker who may be exposed to the possibility of musculoskeletal injury is trained in specific measures to eliminate or reduce that possibility.

This training includes:

- identification of factors that could lead to a musculoskeletal injury,
- the early signs and symptoms of musculoskeletal injury and their potential
- health effects, and
- preventive measures including, where applicable, the use of altered work
- procedures, mechanical aids, and personal protective equipment

18.18 OVERHEAD POWERLINES

The Overhead Power Line Program addresses any employee required to work near overhead power lines. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

Administrative Duties

The Safety Department is responsible for developing and maintaining the Overhead Power Lines Program. These procedures are kept in the Safety Department's files.

Safe Limit of Approach Distances

Pidherney's will contact the power line Owner before work is done or equipment is operated within 7.0 metres of an energized overhead power line:

- a) to determine the voltage of the power line, and
- b) to determine the voltage of the power line and to establish the appropriate safe limit of approach distance as per Section 4 in the AB OHS Code;

Operating voltage between conductors of overhead power line	Safe limit of approach distance for persons and equipment
0-750 volts Insulated or polyethylene covered conductors (1)	300 millimeters
0-750 volts Bare, uninsulated	1.0 meter
Above 750 volts Insulated conductors (1) (2)	1.0 meter
750 volts-40 kilovolts	3.0 meters
69 kilovolts, 72 kilovolts	3.5 meters
138 kilovolts, 144 kilovolts	4.0 meters
230 kilovolts, 260 kilovolts	5.0 meters

Pidherney's will notify the Owner of an energized overhead power line before work is done or equipment is operated in the vicinity of the power line at distances less than the safe limit of approach distances and obtain the Owner's assistance in protecting workers involved. Pidherney's will ensure that earth or other materials are not placed under or beside an overhead power line if doing so reduces the safe clearance to less than the safe limit of approach distances. All employees are to maintain the appropriate safe clearance when working in the vicinity of an overhead power line.

Transported Loads, Equipment & Buildings

The safe limit distances apply to a load, equipment or building that is transported under energized overhead power lines when the total height, including truck and equipment is greater than 4.15 meters. These safe limits do not apply to those below 4.15 meters.

Supervisor Responsibilities

- To facilitate and/or provide proper instruction to their workers on protection requirements.
- Receive written permission from the utility company prior to work being done within 7 meters of any power line. Work being carried out inside this distance must comply with the safe limit of approach distances.

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- If equipment is working within the vicinity of power lines (7 meters), a qualified spotter must be used at all times. The spotter must not have any other job while working as a spotter.

Worker Responsibilities

- Comply with AB OHS regulations.
- Never dump near or under a powerline.
- Never dump within 7 metres of a powerline in any direction.
- Never unload transported equipment off a lowboy near a power line.
- All power lines should be marked on any jobsite prior to job starting up.
- Signs must be placed at all accesses to the line, and should be located at least 10 meters in front of the overhead power line access facing both ways.
- Use of belly dump underneath the power line is permitted provided there is enough clearance. This is preferred methods for dumping under power lines.
- Eye contact must be maintained between spotter and operator.
- When load is being dumped with spotter, ensure communication of specific hazards relating to the job at hand has happened prior to dumping. This would include conflicting utility crossings, overhead utility lines, traffic control and all other related hazards. The spotter will stand where direct communication is maintained with the truck driver and out of the way of the truck.

Contact with Electrical Utilities

If equipment touches a high-voltage line, the operator should take the following precautions.

If equipment or vehicle is still mobile after a contact:

- Stay in the equipment or vehicle.
- Move equipment or vehicle out of contact with the power line (only if safe to do so), and a minimum of 10m away (for 25,000 volts).

Warning: Beware of time relays. Even after breakers are tripped by line damage, relays may be triggered to restore power.

- If the operator can't break contact by moving the machine (while remaining on it), do not move the machine until the utility shuts down the line and confirms that power is off.
- Contact emergency services and Power Company.
- Stay at the scene: Wait till electrical utility arrives.
- Keep others well back (10m minimum).

If the equipment or vehicle is immobilized:

- Stay in/on the equipment or vehicle.
- Contact emergency services and the utility.
- Keep others well back (at least 10m).
- Wait until electrical utility arrives onsite and makes the area safe.

If the equipment or vehicle needs to be abandoned (catches fire):

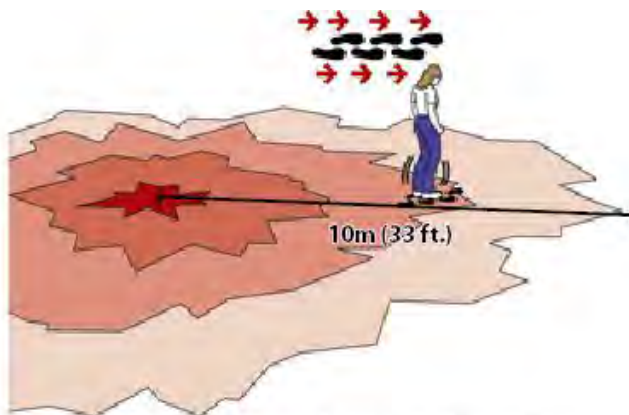
- Follow emergency evacuation procedure.
- Exit equipment or vehicle without touching the equipment or vehicle and the ground simultaneously (jump clear but keep both feet together upon landing).
- Shuffle or bunny hop 10 m away minimum (for 25 kV).
- Wait until electrical company is onsite and makes the area safe.

If you come upon equipment or vehicle which is in a power line contact incident:

Stay well back of affected equipment or vehicle (minimum 10 m for 25 kV); do not attempt to rescue occupants.

Warning: Touching the casualty, even with dry wood or rubber, can be dangerous. With high voltage lines, objects that are normally insulators can become conductors.

- Contact emergency services and the electrical utility.
- Keep others outside of the 10 m distance, the further the better.
- Wait until electrical utility arrives onsite and makes the area safe.



To move through the energized zone, shuffle with very small movements or bunny hop, so that the voltage to each foot will be the same. Do this for a minimum distance of 10 m.

18.19 RESPIRATORY PROTECTION PROGRAM

Pidherney's will supply and maintain Respiratory Protective Equipment as required for the job according to OHS Regulations and Client Standards. The Site Supervisor/Safety Manager is responsible for selecting the appropriate Respiratory Protective Equipment for the worksite, based on the hazards identified.

To facilitate the use of Respiratory Protective Equipment, Pidherney's employees must be clean shaven, fit tested and properly trained. Moustaches are permissible provided they do not interfere with the seals of the breathing apparatus.

The use of Respiratory Protective Equipment is mandatory where workers will be exposed to hazardous vapors, gases, dust or other airborne contaminants that exceed occupational exposure limits.

A Self-Contained Breathing Apparatus (SCBA) and/or Supplied Air Breathing Apparatus (SABA) is mandatory for any entry into tanks, vessels, towers, stacks or any other situation where oxygen levels may drop below 19.5% or present other conditions considered to be immediately dangerous to life or health (IDLH). Its use will be considered standard for rescues under these conditions.

Examples of hazardous vapors, gases, or dust include, but are not limited to, Hantavirus, sulfuric acid, H₂S, Silica Dust and asbestos. Supervisors and workers will refer to the appropriate MSDS for hazardous compounds that are to be expected on site.

General Description

Respiratory protection falls into two major categories.

The first is **Air Purifying Respirators (APRs)**, which use particle chemical cartridges, but no visor plate. The second category is **Atmosphere Supply Respirators (ASRs)**, which use Self Contained Breathing Apparatus (SCBA), Supplied Air Breathing Apparatus (SABA), and protective suits that completely enclose the worker and incorporate a life support system.

Air Purifying Respirators (APRs)

There are two basic types: Disposable fiber type with or without charcoal or chemical filter buttons; and reusable rubber facemask with disposable or rechargeable cartridges.

The choice depends on the job, labor, and the cost. However, the effectiveness of APRs is limited to areas with enough oxygen to support life.

The type of APR, the wearer breathing demand, and the concentration on airborne contaminants affect the service life. To determine when an APR is required, consult OH & S, MSDS, or the supplier for exact specifications.

Combination Respirators

This type of APR combines separate chemical and mechanical filters. This allows for the change of one filter while relying on the other. If one becomes plugged or exhausted before the other (usually the dust filter plugs up before the chemical filter), the operator may safely change it. Combination respirators are suitable for most spray painting and welding. The following guidelines apply:

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- Personnel must be trained in the use, care, and limitations of combination APRs.
- Personnel must be fit tested using quantitative method.
- When required by client medical clearance may be required.
- Fit testing must be performed every 24 months or as required.
- Respirators must be cleaned and disinfected after each shift according to the manufacturers' instructions.
- Exhausted cartridges and masks must be disposed of in sealed bags or containers.
- Unused filters must be kept separate from oil and used filters.
- Filters must be replaced when breathing becomes difficult.
- If serviceability is in doubt, the APR should not be used.
- Combination APRs should not be used if the oxygen content in the air is less than 16% or 18 kilopascals.

Combination APRs must not be used for protection against materials that:

- Are toxic in small amounts.
- Are highly irritating to the eyes.
- Cannot be detected by odor or by irritation of the nose/throat.
- Are not effectively halted by chemical cartridges regardless of concentration.

Air Supply Respirators (ASRs)

There are three basic types of Air Supply Respirators (ASR):

- Self-Contained Breathing Apparatus (SCBA) — uses a compressed air tank carried by the user.
- Supplied Air Breathing Apparatus (SABA) — feeds air from a remote point to the user.
- Hostile Environment Suits — completely encloses the worker and has a self-contained air supply.

The choice of respirator to use depends on the job, labor and cost. ASRs are required wherever there is insufficient oxygen to support life, where hazardous exposure is undetectable by the worker, where the presence of extremely high amounts of airborne toxins exist, or where there is a presence of a small amount of highly toxic contaminant. The type of ASR and the wearer's breathing demand affects the service life. To determine when an ASR is required, consult the OH&S, MSDS or the supplier for exact specifications.

Inspection of Equipment

All respiratory protective equipment must be stored in a readily accessible location for the worker. It must be stored in a manner that prevents its contamination and maintained in a clean and sanitary condition at all times. Each worker shall ensure their equipment is in satisfactory working condition by inspecting it prior to and after each use. Respiratory protective equipment shall be used and maintained in strict compliance with the manufacturer's specifications.

18.20 RIGGING

In order to maintain a safe workplace for its employees, only qualified individuals shall operate overhead cranes, hoists, rigging equipment, and like devices.

All rigging work shall be assembled, used, maintained and dismantled under the direct supervision of competent and qualified workers trained in safe rigging practices, in accordance with manufacturer's specifications and with the code of signals authorized by local regulatory guidelines for controlling hoisting operations.

The maximum load rating of the rigging as determined by the manufacturer will be marked on the rigging. Where it is not practical to have it marked directly on the rigging, workers will be educated in the maximum load rating of the rigging and that the information is available to workers.

The load capacity of rigging will be evaluated to ensure that no rigging device is subjected to loads more than outlined in manufacturer's specifications, or not more than:

- 10% of breaking strength of the weakest part of the rigging, if a worker is being raised or lowered;
- 20% of the ultimate breaking strength of the weakest part of the rigging in all other situations unless otherwise specified by the manufacturer;
- If the worker is not being raised or lowered, the maximum load must not exceed 25% of the ultimate breaking strength.

Training

Training shall include:

- Ensuring employees know the maximum load rating of the rigging and that the information is readily available
- Documentation of employee, date of training and subject matter, including method used to test knowledge of material.
- No employee shall operate cranes or equipment covered by this program until training has been complete and management has approved and designated him or her as a qualified operator.

Rigging Breaking Strength and Load Rating

Rigging equipment to be used during a work shift is to be inspected thoroughly prior to each period of continuous use during the shift to ensure that the rigging is functional and safe by a competent person.

All deteriorated or defective equipment will be immediately removed from service if it doesn't meet the below inspection requirements or rejection criteria.

Hooks

- Any worn or damaged hook must be permanently removed from service. No worker is permitted to use a hook that is worn, damaged, deformed, cracked or otherwise defective or where the throat opening has been increased or the tip has been bent more than 10% out of plane from the hook body, or any dimension of the hook has been decreased by 10%, or any damage exceeds any criteria specified by the manufacturer.

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- All hooks shall be clearly labelled with the maximum load of the hook in a location where a worker using the hook can easily see the rating or the hook's maximum load is made readily available to workers.
- A hook will have a safety latch, mousing or shackle if the hook could cause injury if it is dislodged while in use.

Slings

- A wire rope sling with a swaged or poured socket or a pressed fitting must be permanently identified with its working load limit; the angle upon which the WLL is based; and the name or mark of the sling manufacturer.
- An alloy steel chain sling must be permanently identified with the size; the manufacturer's grade; 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; manufacturer's code or stock number; working load limits for the types of hitches permitted; and type of synthetic web material; or be removed from service if any of these requirements are not met.
- A sling shall be permanently removed from service if it is damaged or worn.
- All slings are to be clearly labelled to indicate the slings' maximum load or the slings' maximum load is made readily available to workers.
- 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.

All devices shall be visually inspected prior to use and removed from service for any of the following conditions:

Nylon slings:

- Abnormal wear.
- Torn stitching.
- Broken or cut fibres.
- Discoloration or deterioration.

Wire rope slings:

- Kinking, crushing, bird caging, or other distortions.
- Evidence of heat damage.
- Cracks, deformation, or worn end attachments.
- Hooks opened more than 10% at the throat.
- Hooks twisted sideways more than 10 degrees from the plane of the unbent hook.

Alloy steel chain slings:

- Cracked, bent, or elongated links or components.
- Cracked hooks.
- Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

Rigging Operations

Rigging shall not be subjected to loads more than outlined in legislative requirements. The maximum load rating of the rigging will be available to the workers at the work site.

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- Wire rope, alloy steel chain, synthetic fibre rope, metal mesh slings and synthetic fibre slings shall 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 shall meet the requirements of ASME Standard B30.20-2006, Below the Hook Lifting Devices (or current version).
- Loads to be unhooked by a worker must be safely landed and supported before the rigging is detached.
- 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.
- Except as otherwise specified by this program or other local regulatory requirements, the maximum rated load of chains, attachments and other rigging equipment shall be warranted by the manufacturer of the equipment, by a professional engineer or by other persons whose qualifications are acceptable to the designated local governmental official or department.
- All slings used to hoist a load and the slings' fittings and attachments must be 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.
- No shackles shall be subjected to a load greater than the maximum load indicated on the shackle. All shackle pins are installed to prevent accidental withdrawal and a bolt is never used in the place of a properly fitted shackle pin.
- Where a 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 will be of sufficient length to protect the workers from any overhead hazard and the tag lines are not removed from the load until the load is securely landed.

Rigging

- Determine the weight of the load – do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Ensure that shackle pins and shouldered eyebolts are installed in accordance with the manufacturer's recommendations.
- Ensure that shoulder-less eye bolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings.
- Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load.
- Wood, tire rubber or other pliable materials may be suitable for padding.
- Do not use slings, eyebolts, shackles or hooks that have been cut, welded or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end.
- Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

Signaling

Signals to the operator shall be in accordance with the standard hand signals prescribed by the applicable standard for the type of equipment. Specific requirements include:

- Each movement of equipment shall be preceded by distinctive signals clearly discernible to all workers endangered by the movement and clearly distinguishable by the operator of the

equipment controlled. A signal which is not understood clearly by the operator of equipment shall be acted upon by him or her as though it were a stop signal.

- A worker shall not cause a signal to be given for the movement of equipment unless he or she has ensured that he or she and all workers within the area for which he or she is responsible are not endangered by the movement.
- Only a designated worker shall cause a signal to be given for the movement of equipment, but workers may cause a stop signal to be given and this signal shall be obeyed promptly and without question.
- A worker designated to direct the movement of equipment shall not be otherwise occupied while the equipment is in motion and he or she shall be prepared to signal to stop during the motion.
- A signaling device that functions unreliably or in a way that might constitute a hazard to a worker shall be removed from service immediately.
- Signals shall be discernible or audible at all times.
- Some special operations may require addition to, or modification of the basic signals.
- For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator and shall not be in conflict with the standard signals.

FORMS - See Appendix B

- Wire Rope Sling & Hook Inspection Form

18.21 SAFEGUARDS

Administrative Duties

The HSE Manager is responsible for developing and maintaining the Safeguards Program. These procedures are kept in the HSE Manager's office.

Safeguards

This section does not apply to belts, ropes or chains operated from a cathead. Safeguards must be put in place if there is potential for a worker to accidentally or through the work process, come into contact with:

- moving parts of machinery
- points of machinery at which material is cut, shaped or bored
- surfaces with temperatures that may cause skin to freeze, burn or blister
- energized electrical cables
- debris, material or objects thrown from equipment
- material being fed into or removed from process equipment
- machinery or equipment that may be hazardous

The design, installation, operation and maintenance must be completed in order to meet legislated requirements and CSA standards.

Subsection (2) does not apply to machinery that already has a safeguard or that:

- a. automatically stops the machinery if a worker comes into contact with a moving part or a point at which material is cut, shaped or bored
- b. prevents a worker from coming into contact with a hazard referred to in subsection (2)
- c. eliminates the hazards referred to in subsection (2) before a worker can be injured

Where safeguards cannot be provided, Pidherney's will ensure that an alternative mechanism or system is utilized or a change in work procedure is put into place to protect workers from being exposed to hazards that exist where there is no safeguard. An alternative mechanism or system or a change in work procedure put into place under subsection (4) must offer protection to workers that is equal to or greater than the protection from a safeguard referred to in subsection (3).

Pidherney's will place warning signs on machinery that starts automatically:

- a. on a clearly visible location at a point of access to the machinery
- b. giving clear instructions to workers on the nature of the hazard

Tampering with Safeguards

No one shall remove a safeguard from a machine that is operating if the safeguard is not designed to be removed when the machine is operating. No one shall remove a safeguard or make it ineffective unless removing it or making it ineffective is necessary to perform maintenance, tests, repairs, adjustments or other tasks on equipment.

If a worker removes a safeguard or makes it ineffective, the worker must also ensure that:

- a. alternative protective measures are in place until the safeguard is replaced
- b. the safeguard is replaced immediately after the task is completed
- c. the safeguard functions properly once replaced

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If a safeguard for machinery is removed or made ineffective and the machinery cannot be directly controlled by a worker, the worker who removes the safeguard or makes it ineffective must lock out or lock out and tag the machinery or render it inoperative.

No Safeguards

Pidherney's may permit the machinery to be operated without the safeguards:

- a) if safeguards are required by this Code for machinery, and
- b) the machinery cannot accommodate or operate with these safeguards.

If machinery is operated without safeguards, workers operating or in the vicinity of the machine wear personal protective equipment that:

- a) is appropriate to the hazard, and
- b) offers equal or greater protection than the safeguards.

Building Shafts

If a work platform is necessary to ensure the safety of workers in a building shaft, there must be:

- a) a main work platform that is completely decked and designed to support any anticipated load, and
- b) a second platform not more than 4 metres below the main work platform

If there is no work platform at a doorway or opening to a building shaft:

- a) the doorway or opening must be enclosed,
- b) the enclosure must not be less than 2 metres high, and
- c) there must be an access door opening out from the enclosed area.

While a building shaft is being constructed, at least one warning sign indicating an open building shaft must be placed at each point of entry to the shaft.

Covering Openings

Any opening or hole through which a worker can fall must be protected by:

- a) a securely attached cover designed to support an anticipated load, or
- b) guardrails and toe boards.

If a worker removes a cover, guardrail or toe board, or part of them, protecting an opening or hole for any reason, a temporary cover or other means of protection must replace it immediately. If a temporary cover is used to protect an opening or hole, a warning sign or clear marking must be present indicating the nature of the hazard:

- a) is posted near or fixed on the cover, and
- b) is not removed unless another effective means of protection is immediately provided.

Guardrails

Guardrails must meet the following specifications:

- a) a horizontal top member installed between 920 millimetres and 1070 millimetres above the base of the guardrail,
- b) a horizontal intermediate member spaced mid-way between the top member and the base,
- c) vertical members at both ends of the horizontal members with intermediate vertical supports that are not more than 3 metres apart at their centers, and
- d) are constructed of lumber that is 38 millimetres by 89 millimetres or material with properties the same as or better than those of lumber.

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Despite subsection (1), a temporary guardrail does not require a horizontal intermediate member if it has a substantial barrier positioned within the space bounded by the horizontal top member, toe board and vertical members that prevents a worker's falling through the space. A guardrail must be secured so that it cannot move in any direction if it is struck or any point on it comes into contact with a worker, materials or equipment.

Hoppers, Bins & Chutes

If a worker can access materials in hoppers, bins or chutes, Pidherney's will ensure the hoppers, bins or chutes have horizontal bars, screens or equally effective safeguards that prevent a worker from falling into the hoppers, bins or chutes.

Machine Failure

If a worker may be injured if a machine fails, the Company must install safeguards on the machine strong enough to contain or deflect flying particles of material, broken parts of machinery and a shock wave.

Protection from Falling Objects

Pidherney's will ensure that workers in a work area where there may be falling objects are protected from the falling objects by an overhead safeguard. Pidherney's will also ensure that a safeguard used under subsection (1) is designed to withstand the shock loads from objects that may fall onto it. (3) Despite subsection (1), if the danger from falling objects is in a location in a work site where workers go intermittently or incidentally to their regular duties, Pidherney's may place appropriate and adequate warning signs, horns, flashing lights or similar devices at the location to warn workers of the hazard.

When a work identifies that there work area has the potential for falling objects the work crews are to ensure they perform inspections and hazard hunts to identify these areas at the start of a shift, after breaks and at the end of the shift to ensure site safety.

Pidherney's will ensure that a safeguard used on a hoist or scaffold under subsection (1):

- a) is made of wire mesh or an enclosure material that is equally or more efficient at containing equipment and materials,
- b) is not less than 1 metre high from the floor, platform or working level of the safeguard, and
- c) encloses all sides of a cantilever hoist platform or skip, except the side adjacent to the building.

If the material being hoisted or lowered is of a kind that prevents the sides of a cantilever hoist platform or skip being enclosed as required by subsection. Pidherney's will provide an effective alternative safeguard against falling materials for the workers. Safeguards around the surface opening of an underground shaft serving a tunnel:

- a) must be made of wire mesh, or an enclosure material that is equally or more effective at containing equipment and materials, and
- b) must not be less than 1 metre high from the surface.

A safeguard must be installed on all sides of:

- a) the cage of a building shaft hoist or a tower hoist, or
- b) a hoist cage in an underground shaft serving a tunnel

A safeguard used on a cage under subsection (7) must be made of:

- a) wire mesh, or
- b) an enclosure material that is equally or more effective at containing equipment and materials and protecting workers from hazards associated with the movement of a cage in a shaft.

Push Stick or Block

If the potential exists that a worker be injured while feeding materials into cutting or shaping machinery, the machine worker must use a push stick, push block or other similar means of feeding the material.

Safety Nets

Safety nets must:

- a. meet the requirements of most current ANSI Standard, *Construction and Demolition Operations – Personnel and Debris Nets*,
- b. have safety hooks or shackles of drawn, rolled or forged steel with an ultimate tensile strength of not less than 22.2 kilonewtons,
- c. have joints between net panels capable of developing the full strength of the web,
- d. extend not less than 2.4 metres beyond the work area,
- e. extend not more than 6 metres below the work area, and
- f. be installed and maintained so that the maximum deflection under impact load does not allow any part of the net to touch another surface.

Toe Boards

- a) a toe board must be no less than 140 millimetres in height above the surface of the work area, and
- b) the space between the bottom of the toe board and the surface of the work area is not more than 6 millimetres high.

Toe boards must be installed at the outer edge above the work area if a worker may be under a permanent floor, platform, mezzanine, walkway, ramp, runway or other permanent surface where:

- a) guardrails are installed, or
- b) materials can fall more than 1.8 metres.

Toe boards must be installed at the outer edge above the work area of temporary scaffolding or a temporary work platform if materials can fall more than 3.5 metres. Toe boards are installed around the top of a pit containing a machine with exposed rotating parts if workers may be working in the pit.

Subsection (1) does not apply to:

- a) the entrance of a loading or unloading area if the Company takes other precautions to ensure that materials do not fall from the permanent surface, or
- b) the entrance to a ladder.

18.22 SCAFFOLDING

Incidents related to the task of scaffolds are responsible for numerous incidents each year. A fall from scaffold can prove have a fatal outcome. All employers, supervisors and workers must be aware of and comply with provincial laws, relevant C.S.A. standards and manufacturers' specifications.

High Risk Tasks:

- Erection and dismantling of scaffolds.
- Access and egress to work platforms.
- Climbing up and down scaffolds.
- Planks sliding or breaking.
- Platforms not fully decked.
- Platforms without guardrails.
- Failure to install all scaffold components.
- Failure to ensure a solid base.
- Moving rolling scaffolds with workers on platform.
- Erection and moving of scaffolds in the vicinity of overhead electrical lines.

Responsibilities

Inspect all scaffold materials prior to use, and be aware of:

- Damage to frames, braces and other structural components;
- Damage to hooks on manufactured planks;
- Splits, knots and rot in wooden planks;
- Cleats missing from wooden planks;
- De-lamination of laminated planks;
- Compatibility of components;
- Sufficient components to safely complete the job
- Founding conditions;
- Overhead electrical wires;
- Obstructions;
- Variation of founding elevations;
- Tie-in locations and methods to be used.

Supporting Surfaces

Ensure that each supporting surface can support all loads to which it may be subjected. Scaffold loads limits **MUST** not be exceeded.

- Floors generally are adequate to support scaffold loads of workers, tools and light materials.
- Older wooden floors should be inspected by an engineer and his recommendations followed.
- Back-filled soils must be well compacted and level.
- Mud and soft soil must be replaced with well-compacted gravel or crushed stone.
- Mudsills placed on sloping ground should be leveled by excavating rather than by back filling.
- Mudsills may be placed along the length or across the width of frames.
- Do not use blocking or shims under base plates or mudsills.

Training

All workers shall be trained in:

- Use and care of fall protection equipment;

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- Use and care of respiratory protection equipment (if required);
- Confined space entry (if required);
- Scaffold tagging system.

All workers used for the erection and dismantling of scaffold shall be competent in the work or supervised by a competent worker.

Other requirements

- All scaffolds will be plumbed and leveled as the erection proceeds.
- **Never** climb cross bracing.
- Always use access ladders, steps, etc.
- Ladders must extend 5'0" (1.83 m), the ladder shall be fully caged after 12' and be supplied with a full rest platform every 20'0" (6.1 m).
- Horizontal tubes supporting ladder structure must span at least two vertical members.
- All scaffold will be anchored vertically every 15'0" (4.5 m) and horizontally every 21'0" (6.4 m). If scaffolds cannot be tied back, they must be guyed using the 3:1 rule, using the smallest base dimension. Guyed freestanding scaffolds must be engineered.
- When scaffolds are partially or fully enclosed, take into consideration increased loads due to wind, snow, etc. Consult our engineers.
- Never use ladders or steps on top of a scaffold to increase its height
- Scaffold tubes, braces, planks or accessories must not protrude through ladder cages or stairways. Scaffold clamps or accessories must not be fastened to ladders, cages or stairways and, where possible, have clearance of 3" (750 mm) so as not to restrict hand or foot access while climbing or descending.

Note: *If it is necessary to attach scaffold components through or to a ladder or cage, then the ladder must be roped off at its access points (top and bottom) or a yellow caution tag placed at eye level at access point.*

- When erecting or dismantling scaffold, consideration must be given to prevent damage to process equipment and injury to workers:
 - a) Rope off area and install warning signs.
 - b) Determine best method to lift or lower materials.
 - c) Use safe techniques to eliminate accidental dropping of material.

Additional Practices for Frame Scaffold

- Two vertical cross braces must be used for each lift of frame scaffold.
- Frame scaffolds, which have a height greater than 20'0" (6.1 m), must have cross bracing in place, on the bottom lift and every 20'0" (6.1 m) of vertical rise thereafter.
- Each lift of frame scaffold must have 4 connecting pins, which are bolted to the bottom frames to eliminate them from falling while scaffold is being dismantled.
- Each lift of frame scaffold must have 4 locking arms or 8 pins to prevent frames from separating. #9 wire is not an acceptable means of securing 2 scaffold frames together.
- The working platforms must be equipped with guardrails and toe boards.

Additional Practices for System Scaffold

- Fit adjustable bases with collars and lay out roughly in position with their corresponding ledgers. Pick the highest ground level for a setting out point to simplify later adjustment. It

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helps if the screw jack is near (not at) the bottom of the thread by allowing maximum adjustment on lower ground levels.

- Connect the ledgers to the rosette on the collar of the adjustable base, but do not tighten the wedges just yet. If structure is rectangular, use the small slots. If circular, use large slots. **DO NOT SECURE THE WEDGES AT THIS STAGE.**
- Using a spirit level, adjust the bases so that the ledgers are horizontal. Accuracy in leveling at this stage eliminates the need for further leveling and plumbing as the scaffolding is erected.
- Square up the ledgers and secure the wedges.
- When basing out is completed, the first standards are positioned into the collar of the base.
- Ledgers can now be placed at the required levels.
- Handrail is automatically positioned by placing the ledgers on the rosettes and securing.
- Planks are now moved up to this first lift, decking out fully if this is to be a working platform.
- Fix diagonal braces across the face of the bays and secure wedges.
- Adding top rails, mid rails, completes the scaffolding and toe boards on the working platform and attaching an access ladder.

Additional Practices for Tube and Clamp

Structure: Plumb and level all horizontal and vertical tubular members as erection proceeds. When using swivel couplers, never tighten the clamps until vertical or horizontal squaring is accomplished.

Standards: The spacing of standards is dependent upon the load the scaffold is intended to support. It is necessary to check loading requirements with design when constructing a scaffold. Light duty scaffold standards must not be further apart than 10'6" (3 m). Heavy-duty scaffold standards must not be farther apart than 7'6" (2.3 m).

Ledgers: Ledgers should be connected to standards with a right-angle clamp and should be horizontal (level). The vertical spacing of ledgers should not exceed 6'6" (1.98 m).

Transoms: Transoms should be connected across the ledgers as close as possible to the standards and should not extend more than 12" (305 mm) beyond the ledger. They should be connected with right angle clamps to the ledger or standard.

Bracing: Where height exceeds three times the smallest base dimension, tube and clamp scaffolds should be tied at 15'0" (4.6 m) intervals vertically and 20'0" (6 m) horizontally. Where possible, push-pull ties should be used, ensuring that the tie tube is connected to either standards or both ledgers using right angle clamps.

Bracing, Internal: Standard to standard or internal bracing should occur every 20'0" (6 m) in length on every lift and should be connected with right angle or swivel clamps.

Bracing, Face Sway: Face sway bracing should be installed on the outside face of the scaffold, from ground level to full height of an angle of approximately 45° to the horizontal and should be continuous. Where possible, all connections should occur at the node (intersection of standards and ledgers) point or as close to the node point as possible.

Clamps:

The following clamps are commonly used:

- Right-angle clamp for connecting tubes at right angles to provide rigidity.

- End-to-end clamp externally applied to connect two tubes end-to-end.
- Swivel clamp to connect two tubes where right-angle clamps cannot be used. Do not use in load bearing conditions.
- Parallel clamp for lap-joining two tubes together and for connecting guardrail posts to the standards or legs of frame scaffolds.
- Concrete tie clamp to connect a tube to concrete or other surfaces using a bolt or concrete anchor.
- Putlog clamp for lap-joining two tubes together and for connecting guardrail posts to the standard or legs of frame scaffolds.
- Concrete tie clamp to connect a tube to concrete or other surfaces using a bolt or concrete anchor.
- Putlog clamp to connect two tubes in light-duty service such as guardrails or to secure wooden items such as toe boards.
- Beam clamp to connect scaffold tube to structural beam.

Before use, check clamps carefully for damage to threads and body.

Tagging

- Attach tags at all access points to the area around the ribbon, describing the date, who is doing the work and the job being done
- Affix a red tag to the scaffold being built or that is unsafe as soon as it is possible to do so to keep unauthorized personnel off.
- Affix a yellow tag to the scaffold stating the hazards that exist on the scaffold and caution is to be used.
- Affix a green tag if scaffold is safe to use with no additional existing Hazards.

****refer to current OH&S Code Section 323-345***

18.23 SILICA IN THE WORKPLACE

Purpose

Excessive or prolonged exposure to airborne contaminants is greatly responsible for illness and death directly related to the workplace. Although symptoms are sometimes not immediate, long term effects of disease associated with exposure to these contaminants is becoming more and more evident.

The purpose of this Code of Practice is to minimize, where elimination is not possible, the occupational exposure of airborne contaminants, namely Silicon Dioxide (silica), utilizing engineering controls, administrative controls, training and the appropriate use personal protective equipment to achieve minimal risk for occupational disease.

This Code of Practice will serve to:

- Aide in the recognition of workplace environments that hold potential for excessive exposure to airborne contaminants
- Assist in the implementation of Safe Work Practices and Procedures for worksites where there may be excessive or long-term exposure to airborne contaminants
- Promoting awareness to employees who may be directly involved in operations where airborne contaminants are present
- Aide in implementing preventative measures to limit exposure and minimize effects due to exposure
- Mandate the proper usage of PPE required for working these environments
- Help members of workplace health and safety committees in identifying and making recommendations on hazard assessment and control

Always assume airborne contaminants are present where there is potential for dust in a workplace environment.

Terms and Definitions

Airborne Contaminant: chemicals, particulates, or biological materials that cause discomfort, disease, or death to humans, damage other living organisms such as food crops, or damage the natural environment.

Silicon Dioxide (SiO₂): Also known as **Silica**; chemical compound that is an oxide of silicon. Silica is most commonly found in nature as sand or quartz, as well as in the cell walls of diatoms.

Silicosis: A progressive disease that belongs to a group of lung disorders called pneumoconiosis. Silicosis is marked by the formation of lumps (nodules) and fibrous scar tissue in the lungs.

Respirable Dust: the fraction of dust particles which, due to their dimension (i.e. aerodynamic diameter), can be deposited the lower gas exchange regions of the lung.

Exposed Worker: a person engaged in an occupation where they are exposed to contaminants 30 or more days within a 12-month period

Workplace: a place where a worker or self-employed person is engaged in an occupation. This includes any vehicle or mobile equipment used by a worker in an occupation

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Occupational Exposure Limits: an upper limit on the acceptable concentration of a hazardous substance in workplace air for a particular material or class of materials. Occupational exposure limits (OELs) have been developed for airborne exposure to gases, vapors and particulates. For airborne exposures, there are three types of limits in common use:

Time-weighted average (TWA) exposure limit: the maximum average concentration of a chemical in air for a normal 8-hour working day and 40-hour week;

Short-term exposure limit (STEL): the maximum average concentration to which workers can be exposed for a short period (usually 15 minutes);

Ceiling value: the concentration that should not be exceeded at any time

Hazard: a situation or condition or that may pose a threat to the health and safety of workers, or to the environment

Hazard assessment: an assessment accompanied by documentation that identifies hazards and the controls associated as to minimize the threat posed to workers

NIOSH: National Institute for Occupational Safety and Health

Manufacturer's specifications: written specifications, instructions, or recommendations, if any, of the manufacturer of equipment or supplies, that describes how the equipment or supplies are to be erected, installed, assembled, started, operated, handled, stored, stopped, calibrated, adjusted, maintained, repaired or dismantled, including a manufacturer's instructions, operating or maintenance manual, or drawings for the equipment

Personal protective equipment (PPE): any equipment or clothing worn by a person for protection from health or safety hazards associated with conditions at a work site

Hazardous Properties

Silica occurs commonly in nature as sandstone, silica sand or quartzite. It is also present in building material like concrete and brick. Any disruption such as cutting, grinding or drilling these materials releases dangerous crystalline silica dust into the air. Silica dust is very common. Any workplace activity that creates dust is likely to expose workers to silica.

Silica is one of the most abundant oxide materials in the earth's crust. It can exist in an amorphous form (vitreous silica) or in a variety of crystalline forms. Crystalline silica is classified as a human carcinogen and for that reason; exposure must be kept as low as reasonably achievable.

Health Effects

Initial exposure to silica dust without adequate controls in place, will cause irritation to the eyes, nose and throat like most other dusts.

Inhalation of excessive amounts of silica and even small amounts over a long period of time can cause many debilitating illnesses including tuberculosis, chronic kidney disease, respiratory disease and silicosis. Silicosis is the most significant lung disease caused by breathing mineral dusts. The most common form of silicosis develops after long exposure to relatively low concentrations.

Silicosis is the result of the body's response to the presence of silica dust in the lung. The respirable fraction of the dust, particles generally considered to be smaller than 5µm (millionth of a metre), can penetrate to the innermost reaches of the respiratory tract. These are the alveoli or air sacs where exchange of oxygen and carbon dioxide occurs. Dust particles, which land on these surfaces, are removed by white blood cells known as macrophages. Particles of free crystalline silica cause the macrophages to break open. The result is the formation of a scar like patch on the surface of the alveolus. Formation of large numbers of "scars" following prolonged exposure causes the alveolar surface to become less elastic. This reduces the transfer of gases. This is noticed as shortness of breath following exertion. Generally, symptoms of exposure are not identified right away, and seldom develop in less than five years. In many cases, symptoms of exposure may take more than 20 years to become disabling.

Development of silicosis is influenced by several factors, which include:

- amount of dust inhaled
- content of crystalline free silica in the dust
- form of the silica
- relative size of the inhaled particles
- length of exposure
- individual resistance
- smoking habits
- disease status
- age of worker

There are three major types of silicosis: acute, chronic and accelerated.

Acute silicosis

Acute silicosis develops from inhaling large amounts of silica dust over a few days or months. Signs of the disease include shortness of breath, fever, cough and weight loss. Generally, people with acute silicosis have stable health, however for some it may lead quickly to death.

Chronic silicosis

Chronic silicosis is the most common type and **occurs after many years of contact with low levels of silica dust in the air**. There are two forms of chronic silicosis: simple or complicated. With simple silicosis, small solid or unclear nodules can be detected on a chest x-ray, however, individuals are asymptomatic. Long-term exposure to silica dust may lead to complicated silicosis. With complicated silicosis, also called progressive massive fibrosis (PMF), larger nodules can be detected on a chest x-ray. Some individuals may still be asymptomatic or initial symptoms may include shortness of breath with exercise, wheezing or sputum that causes coughing. Other lung diseases can aggravate the condition and severe complicated silicosis can result in heart disease with lung disease, called cor pulmonale.

Accelerated silicosis

Accelerated silicosis is similar to the chronic type, however it forms more quickly. The lung scars can be detected sooner, and nodules appear on a chest x-ray, five years after the first exposure to silica dust. This type of silicosis occurs from exposure to large amounts of silica dust over a short time period and can progress quickly.

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Eye contact with silica may cause abrasion to the cornea. It may only cause slight irritation as a "foreign object". Tearing, blinking and mild temporary pain are the most common symptoms as particles are rinsed from the eye by tears.

Silica dust is not likely to cause skin irritation upon exposure. If ingested, it is not harmful.

Occupational Exposure Limits (OEL)

Occupational Exposure Limits (OELs) are standards set for the amount of exposure to airborne hazardous material (gas, vapor, dust) based on 8 hours per day, 40 hours per week that is not believed to result in health complications. It is possible for people to be sensitive to a particular hazardous material, resulting in a reaction at or below the OEL outlined.

Occupational exposure limits for airborne contaminants are outlined in Part 4, Schedule 1, Table 2: Chemical Substances in the Alberta OH&S Code.

It is quite common for a work day to be longer than the traditional 8 hour and 40 hour schedule to accommodate the demands for increased production. The duration of time any worker is exposed to airborne contaminants, greatly affects the total amount of inhaled contaminants. **The 8-hour OEL for quartz and silica is 0.025 mg per cubic meter.** However, OH&S law states that the OEL be adjusted when worker exposure exceeds 8 hours.

10-hour shift exposure limit is reduced by 25% = OEL 0.018 mg/cubic meter

12-hour shift exposure limit is reduced by 50% = OEL 0.012 mg/cubic meter

Hazard Recognition

It is important for workers to know and be able to identify hazards associated with their work environments. Employees must be warned of the dangers of high or prolonged exposure to airborne contaminants, such as silica. Hazard assessments should be conducted at the beginning of each job and at the appropriate intervals thereafter or as changes occur to identify the potential hazards of the job site. Silica exposure is a hazard, and should be identified, communicated and documented when applicable to the job or environment.

Safe Work Practices

It is Pidherney's responsibility to minimize the release of Silica into the air as far as reasonably practicable and to keep the work site clear of unnecessary accumulations of Silica and waste materials containing Silica. The following safe work practices set out by Pidherney's are in place to ensure that exposure is minimized as much as is reasonably practicable.

Training

One of the most important and potentially most productive controls for this hazard is that employees at risk of becoming an exposed worker be adequately trained in the identification and dangers of Crystalline Silica. Each employee must also be trained in the proper use, care, and storage of protective and respiratory equipment associated with working on operations where silica dust is present. Topics discussed within this training are as follows:

- Health hazards of excessive exposure
- Precautionary measures when working in these environments
- Legal consequences of failing to comply with controls in place
- Good housekeeping practices
- Use, fit, care and limitations of personal protective equipment

- Procedures to minimize dust generation

Good Hygiene Practices

1. Clothing

Dust-laden clothing is likely to be a source of continuing exposure following motions which cause the dust to become re-suspended. Loose dust can be easily removed from clothing or skin by brushing it off.

2. Washing Facilities

Skin contamination by dust does not provide a harmful route of exposure. However, employees should be encouraged to wash their hands and arms before eating, drinking, smoking or leaving the workplace.

3. Eating Facilities

Consumption of food and beverages and smoking in the working area should be minimized. The severity of response to exposure to silica is greatly affected by smoking. While ingestion is not considered a credible route of exposure, ingestion may be an important consideration in exposure to other toxic agents, which may be present in the dust. Eating, drinking or smoking when one is exposed to airborne contaminants can provide adequate route of exposure.

Signage

Signs must be placed in areas where the potential for silica exposure exists in quantitative amounts. They must be located in conspicuous locations at the entrances to and on the periphery of each restricted area. Signage is to remain posted until the area is no longer a restricted area.

This will serve to raise awareness of the hazard that exists on the job site. Signs will also alert to remind our workers of the training they've received and the personal protective equipment requirements they must comply with in order to minimize or eliminate the possibility of exposure.

Health Assessments

OH&S regulations state that the employer is responsible for:

- Sending an exposed worker for a health assessment within 30 days of being exposed;
OR
- knowing that the exposed worker has received a health assessment in the previous 2 years.
The employee must provide documentation of this assessment.

The health assessment must be completed by a physician. The physician will conduct a collection of health history, a chest x-ray, a radiologist's report, and a lung function test. The employee must receive a copy of the physician's interpretation and explanation of the health assessment and submit it to Pidherney's within 60 days from the time of assessment.

Health assessments must be completed every 2 years after the initial assessment if the employee is still considered to be an exposed worker. An employee can refuse an assessment if he or she provides a written statement of refusal that must be submitted to Pidherney's and kept within the employee's file.

Pidherney's will not coerce, threaten or force a worker into refusing part or all of a health assessment. Pidherney's will cover the costs associated with the assessment as well as make a reasonable effort to send the employee to complete the appointment during regular working hours while on company time.

Personal Protective Equipment

To minimize direct exposure and the effects of silica, the use of eye protection, protective clothing and respiratory equipment is mandatory for workers that are involved in operations related to aggregate crushing and processing. Although precautions should always be taken when the possibility of silica exposure exists in any job environment, this hazard remains consistent within these specific operations and their environments.

Because there are situations and environments that cannot be directly controlled by only engineering and administrative controls, personal protective equipment has been selected and mandated for our employees that stand a heightened risk of exposure to moderate levels of Silica.

Respiratory Equipment

The use of respiratory equipment is essential in minimizing risk. Selecting the proper equipment involves choosing a device that fully protects our employees from the hazard they may be exposed to and also permits them to perform their job with the least amount of physical burden. The following factors must be taken into account:

- Nature of the task
- Duration of exposure (shift length)
- Frequency of exposure
- Standards outlined by CSA standard **Z94.4-02**

Respirators can only provide adequate protection if:

- respirators are properly selected for the task
- respirators are fitted to the wearer
- respirators are consistently put on and worn properly.

Any questions or concerns in regards to, or in order to obtain the following personal protective equipment, employees are asked to contact the Safety Department.

Half face piece designs are marketed in many varieties. They use a filter which acts passively on air inhaled by the user. These are simple, light, single-piece, half-face, face pieces and employ mechanical mechanisms to remove particulates from the air stream. The entire unit is discarded after some extended period or a single use and only by a single user.

Eye Protective Equipment

Protection from dust particles is also significant. Although there are no life-threatening effects from dust or silica exposure to the eyes, it is important to protect the eyes from the irritation and potential for eye injury associated with dust in the workplace. CSA approved eyewear is mandatory on all job sites associated with the risk of dust.

Protective Clothing

Protective clothing must be worn at all times while in restricted areas where there is a potential for Silica exposure to occur. Clothing worn in a restricted area containing Silica can be reused if clothing is laundered in an appropriate manner and at appropriate intervals. This will ensure that the clothing is decontaminated. It will also ensure that cross contamination of other clothing does not occur.

18.24 FLAGGING AND TRAFFIC CONTROL

The following procedures were developed to maintain uniform requirements to ensure that traffic control training and practices are communicated and understood by all affected employees. These requirements are also designed to ensure that procedures are in place to safeguard the health and safety of all employees.

Any worker required to perform traffic control activities must first receive flagger training; have read and understood all applicable safe work practices and procedures; and be deemed competent to perform traffic control activities.

Training

All personnel will receive in-house training prior to commencement of flagging duties. Upon completion of this flag training, personnel receive flag certification that they are required to have on them, available upon request.

Personal Protective Equipment

Flagging personnel must understand the requirement of reporting to work adequately dressed, prepared for all weather conditions.

All flagging personnel must wear as a minimum, the following minimum PPE to control traffic:

- Approved safety boots with ankle support
- hard hat (based on site requirements)
- fluorescent yellow coveralls
- safety glasses
- hearing protection (when required)

In addition, the flag person may also be required to wear the following PPE:

- rain gear: worn under reflective clothing so not to impair visibility,
- sunscreen or insect repellent,
- two-way radio or mike phone for communication.

For night or early morning operations where light and visibility are limited, the following PPE is required:

- steel toed boots
- hard hat
- fluorescent yellow coveralls
- LED safety vest
- Flashlight with a semi-transparent orange cone.

Traffic Control Devices

A number of hand-signaling devices, such as reflective STOP/SLOW paddles/poles and lights, may be used to help control traffic in a work zone.

The Manual of Uniform Traffic Control Devices for Canada specifies the for highway type operations, paddles must be at least 45cm wide, with letters at least 15cm high. Paddles can be hand held or mounted on a pole approximately 1.6m high.

Company Vehicles

All company vehicles will be parked off the shoulder out of the path of traffic.

All pickups/service trucks will have rotating/flashing amber lights.

Signage

All signage posted must be in accordance with 7.1 of Alberta Transportation's *Standard Specifications for Highway Construction*.

Portable signs must be:

- a. 1.0 metres high and 0.6 metres wide,
- b. a minimum of 0.3 metres above the road surface, and
- c. mounted on an "A" frame type stand.

Permanent signs must be:

- a. a minimum of 1.5 metres above the road surface, and
- b. mounted on a "U" flange post to support various signs.

All overhead power line signs will be signed facing oncoming traffic during construction operations.

Documentation

In line with the Traffic Accommodation Strategy specific to the worksite, signage will be checked and corrected if need be prior to each shift to ensure efficient communication with traffic, and the safety of workers. A record will be kept of daily checks on Pidherney's "Daily Record of Temporary Construction Signs".

18.25 TRANSPORTATION OF DANGEROUS GOODS (TDG)

This Transportation of Dangerous Goods Program provides safety guidelines and instructions for the transportation of dangerous goods by employees and contractors.

Administrative Duties

The safety department has overall responsibility for coordinating safety and health programs at Pidherney's. The Transportation of Dangerous Goods Program will be reviewed on an annual basis and updated as required. Copies of the written program may be obtained from the safety department.

Classification and Characteristics of Dangerous Goods

The TDG Regulations divide dangerous goods into 9 classes according to the type of hazard they present. Some of these are divided into divisions due to the nature and characteristic of the substances.

Table 1

Class	Division	Characteristics of Dangerous Goods
1 Explosives	1.1	A substance or article with a mass explosion hazard
	1.2	A substance or article with a projection hazard but not a mass explosion hazard
	1.3	A substance or article which has a fire hazard and either a minor blast hazard or a minor projection hazard or both, but does not have a mass explosion hazard
	1.4	A substance or article which presents no significant hazard beyond the package in the event of ignition or initiation during transport
	1.5	A very insensitive substance with a mass explosion hazard
	1.6	Extremely insensitive article with no mass explosion hazard
2 Gases	2.1	A flammable gas which is easily ignited and burns
	2.2	A non-flammable, non-toxic, non-corrosive gas
	2.3	A toxic gas
3 Flammable Liquids	None	A flammable liquid with a closed-cup flash point less than or equal to 60.0° C
4 Flammable Solids	4.1	A flammable solid which is readily combustible and may cause fire through friction or from heat retained from manufacturing
	4.2	A spontaneously combustible substance that ignites when exposed to air
	4.3	A water-reactive substance which emits flammable gas when it comes into contact with water

Class	Division	Characteristics of Dangerous Goods
5 Oxidizing Substances, Organic Peroxides	5.1	An oxidizing substance which may yield oxygen and contribute to the combustion of other material
	5.2	An organic peroxide which releases oxygen readily and may be liable to explosive decomposition, or sensitive to heat, shock or friction
6 Toxic and Infectious Substances	6.1	A toxic substance that is liable to cause harm to human health
	6.2	An infectious substance
7 Radioactive Materials	None	Radioactive materials as defined in the Packaging and Transport of Nuclear Substance Regulations.
8 Corrosive Substances	None	Solids or liquids such as acids or alkali materials that cause destruction of the skin or corrode metals
9 Miscellaneous Products, Substances or Organisms	None	A regulated substance that cannot be assigned to any other class. It includes genetically modified micro- organisms, marine pollutants and substances transported at elevated temperatures.

In addition to the class and division, some dangerous goods are also assigned packing groups. These groups reflect the level of hazard that dangerous goods represent.

Packing Group	Level of Hazard
I	Very hazardous substances
II	Hazardous substances
III	Moderately hazardous substances

The assignment of packing groups is done according to chemical and physical testing requirements outlined for each class of dangerous goods in Part 2 of the TDG Regulations.

DOCUMENTATION

Consignor Responsibilities

A consignor is defined as a person in Canada who is named in the shipping document as the consignor; imports or who will import dangerous goods into Canada; or if the previous do not apply, has possession of dangerous goods immediately before they are in transport. It is the responsibility of the consignor to prepare and give a shipping document to the carrier or an electronic copy, if the carrier agrees. If the consignor is an importer of dangerous goods, then he or she must make sure that the carrier has a shipping document prior to the dangerous goods being transported in Canada [Section 3.1].

Carrier Responsibilities

A carrier is defined as a person who, whether or not for hire or reward has possession of dangerous goods while they are in transport. A carrier must not take possession of a shipment of dangerous goods unless they have a shipping document for the dangerous goods. If the carrier accepts an electronic copy of a shipping document, then they must produce a paper copy to carry with the shipment [Section 3.2].

If the dangerous goods are passed to another person, the carrier must provide a copy of the shipping document to that other person who could be another carrier or the consignee (final receiver) of the dangerous goods.

Location of Shipping Document

The driver of a power unit must ensure that a copy of the shipping document is kept in a pocket mounted on the driver's door, or within the driver's reach. If the driver leaves the power unit he or she must place the document in the door pocket, on the driver's seat or on a location that is clearly visible to anyone entering the power unit through the driver's door [Section 3.7]

After unloading a shipment of dangerous goods or disconnecting a cargo unit (for example, a trailer) from a power unit, the carrier must place the shipping document in a waterproof receptacle attached to or near the means of containment containing the dangerous goods. This is necessary if the shipment is left in an unsupervised area or possession of the dangerous goods has not been transferred to another person [Section 3.10].

Information on the Shipping Document

According to Section 1.4 of the Transportation of Dangerous Goods Regulations, the definition of the shipping document must be in paper format, electronic format is not acceptable. The information on a shipping document must be easy to identify, legible and printed in indelible ink. The shipping document may be prepared in English or in French [Section 3.4]. The table below describes the minimum required information that must appear on a shipping document.

A shipping document template is included at the end of this bulletin.

The following is the minimum required information that must appear on a shipping document:

Shipping Document Information	When Required	Where in The Regulations
Date	Always	3.5(1)(b)
Name and address of consignor	Always	3.5(1)(a)
Description of goods in the following order		
a. UN number	Always	3.5(1)(c)(i)
b. Shipping name	Always	3.5(1)(c)(ii)
c. The technical name of the most dangerous substance related to the primary classification	If Provision 16 of Schedule 2 applies	3.5(1)(c)(ii)(A)
d. The words "Not Odorized"	For liquefied petroleum gas that has not been odorized	3.5(1)(c)(ii)(B)
e. Primary classification	Always	3.5(1)(c)(iii)
f. Compatibility group	For Class 1	3.5(1)(c)(iv)
g. Subsidiary classifications	If Any	3.5(1)(c)(v)
h. Packing group	If Any	3.5(1)(c)(vi)
The words "Toxic by inhalation" or "toxic – inhalation hazard"	If Provision 23 of Schedule 2 applies	3.5(1)(c)(vii)
The quantity in the International System of Units (SI) for each shipping name ^{1, 2}	Always	3.5(1)(d)
The net explosive quantity	For Class 1 as per Provision 85 and 86 of Schedule 2	3.5(1)(d)
The number of containers	For dangerous goods in small containers requiring safety labels	3.5(1)(e)
The words "24-Hour Number" followed by a telephone number where the consignor can easily be reached	Always	3.5(1)(f)
Consignor's Certification	Always	3.6.1
Emergency Response Assistance Plan (ERAP) number and telephone number to activate it	If Required	3.6(1)
The control and emergency temperatures	For products in Classes 4.1 and 5.2	3.6(3)
The words "Fumigated Unit"	As required	3.5(3)
Additional information for Class 7 ⁵	As required	3.6(3)(d)

Note:

If the quantity of dangerous goods is less than 10% of the container's maximum fill limit, then the words "Residue – Last Contained" followed by the shipping name of the dangerous goods last contained in the means of containment may be used to describe the quantity. This does not apply to Class 2 gases in small containers and Class 7 radioactive substances [Section 3.5(4)].

Multiple Deliveries: If the quantity of dangerous goods or the number of small means of containment changes during transport, the carrier must show the change on the shipping document or on a document attached to the shipping document. [Section 3.5(5)].

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The telephone number of someone who is not the consignor, but who is competent to give technical information on the shipment, such as CANUTEC, may be used instead. To use CANUTEC's phone number, the consignor must receive permission, in writing, from CANUTEC. A consignor who uses the telephone number of an organization or agency other than CANUTEC must ensure that the organization or agency has current, accurate information on the dangerous goods the consignor offers for transport and, if the organization or agency is located outside Canada, the telephone number must include the country code and, if required, the city code [Section 3.5 (2)].

Consignor's Certification: "I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations." (Section 3.6.1)

Additional requirements can be found in "Packaging and Transport of Nuclear Substances Regulation"

Radioactive materials have special documentation requirements. Dangerous goods shipped by air must be documented in a prescribed form known as "Shipper's Declaration for Dangerous Goods". For details of alternate and additional documentation requirements, consult Part 3 of the TDG Regulations or call the Coordination and Information Centre at 1-800-272-9600.

Waste Manifest

A waste manifest or recycling docket produced by Alberta Environment and Parks is an acceptable dangerous goods shipping document, as it contains all the requirements listed in Section 3.5 of the TDG Regulations.

A waste manifest or recycling docket is used when shipping a dangerous good that is no longer in its original form and is intended for treatment, disposal or recycling. These forms are serialized pre-printed forms which are only available through government offices. In order to obtain these documents, please call Alberta Environment and Parks at (780) 427- 0666 (for a toll free call in Alberta dial 310-0000).

Oilfield Waste Manifest

When shipping oilfield production wastes a special waste, manifest is used. This document was developed by the Alberta Energy Regulators (AER) and meets the requirements for a waste manifest as specified by Alberta Environment. This document is similar to the waste manifest described previously but uses a different waste tracking system.

For information, contact your nearest AER Customer Contact Centre at 1-855-297-8311.

SAFETY MARKS

Safety marks are the placards, labels and package markings which identify dangerous goods shipments. Anyone who offers for transport, transports or imports a means of containment that contains dangerous goods must display the safety marks required by the TDG Regulations [Section 4.1].

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A person must not display a safety mark on a means of containment if that safety mark is misleading as to the contents or potential danger [Section 4.2].

A person must not load or pack dangerous goods into a large means of containment unless the means of containment displays the safety marks required before the dangerous goods are loaded [Section 4.3].

The consignor (shipper) must ensure that each package of dangerous goods is properly labeled and marked and that all necessary placards are provided. It is the consignor's responsibility to provide the safety marks to the carrier [Section 4.4].

The carrier is responsible for displaying the required safety marks on the large means of containment and ensuring that the required safety marks remain displayed on the small means of containment and the large means of containment. The carrier must also provide, display or remove the safety marks if the requirements for them change while in transport. [Section 4.5].

General Features of All Safety Marks

All safety marks must be:

- visible and legible;
- displayed against a background of contrasting colour;
- made of durable, weather-resistant material; and
- displayed in colours specified in the Pantone® "Formula Guide", the Part 172 of CFR 49 or Chapters 5.2 and 5.3 of the UN Dangerous Goods Recommendations [Section 4.6].

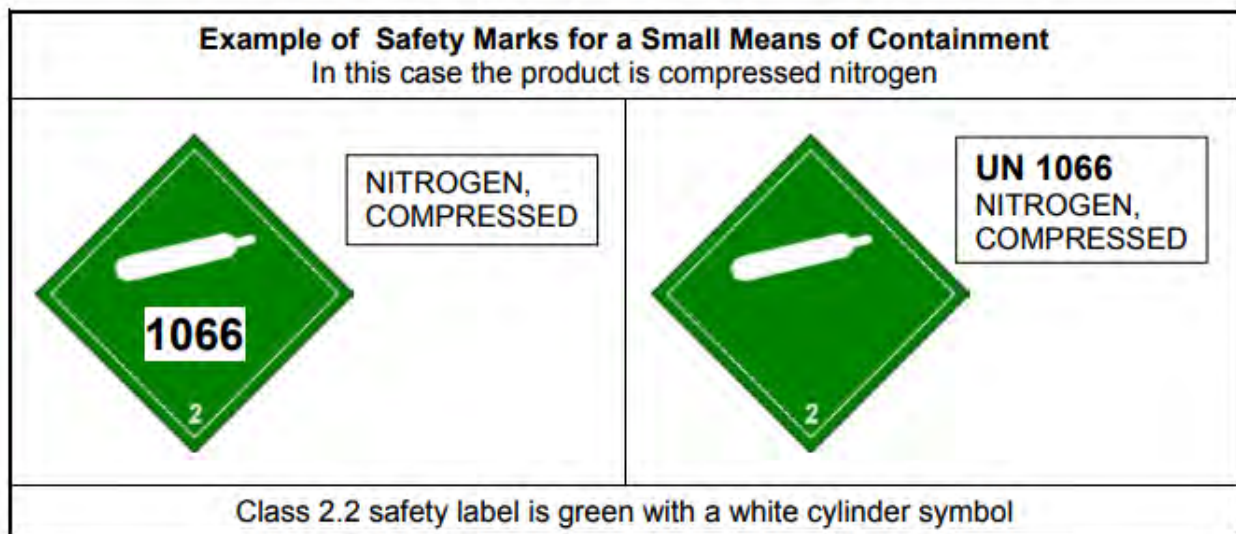
Small Means of Containment

A small means of containment has a capacity of 450 liters or less. A small means of containment must display the dangerous goods label(s), the shipping name, the technical name (if applicable) and the UN number of the product [Sections 4.10 to 4.12]. A label must be at least 100 mm on each side. If the container is too small or it has an irregular shape, the label can be reduced in size up to a dimension of 30 mm on each side [Section 4.7(2)]. If the label is reduced in size to 30 mm, the UN number, shipping name and label may be displayed on a tag affixed to the means of containment [Section 4.10(4)].

If the size of the label is reduced, every symbol, letter and number required on that label must be reduced proportionally. If a small means of containment is placed inside another, and the outer container is not opened during loading, transport or unloading, then the label is required to be displayed only on the outer small means of containment [Section 4.10(1)(a)].

The UN Number must also be displayed either within a white rectangle located on the primary class label itself or next to the primary class label [Section 4.8(a) and Section 4.12(1)]. When the primary class label for dangerous goods in transport is displayed on a tag, the UN number must also be displayed on the tag on or next to the primary class label [Section 4.12(2)]. If the UN number is displayed on the label itself, the letters "UN" must not be displayed with the number [Section 4.8(1)(b)].

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If a small means of containment is placed inside another, and the outer container is not opened during loading, transport or unloading, then the label is required to be displayed only on the outer small means of containment [Paragraph 4.10(1)(a)].

If the shipment includes dangerous goods in Class 7, Radioactive Materials, then two labels are required on the small means of containment [Paragraph 4.10(1)(c)]. The labels must be displayed on two opposite sides of the outer surface of a small means of containment [Paragraph 4.10(3)(c)]. When a small means of containment contains a radioactive material, a label is not required to be displayed if the shipping name and UN number of the radioactive material are displayed on the small means of containment and the radioactive material is contained in an exposure device, and the small means of containment is marked in accordance with paragraph 16(5)(a) of the "Packaging and Transport of Nuclear Substances Regulations" or the radioactive material is LSA-I material, and the small means of containment is marked in accordance with paragraph 16(5)(c) of the "Packaging and Transport of Nuclear Substances Regulations" [Subsection 4.10(5)].

When a small means of containment is inside an overpack and a safety mark is required by Part 4 of the Transportation of Dangerous Goods Regulations, the **person who prepares the overpack** must display the word "Overpack" on at least **one side** of the overpack, the information required by subsection 4.10.1(3) on one side of the overpack, if its capacity is **less than 1.8 m3 (64 cubic feet)**, and the information required by subsection 4.10.1(3) on **two opposite sides** of the overpack, if its capacity is **greater than or equal to 1.8 m3 (64 cubic feet)** [Subsection 4.10.1(1)].

When a label is required by Part 4 of the Transportation of Dangerous Goods Regulations to be displayed on a small means of containment that is inside a consolidation bin, an indication of each class of dangerous goods contained in the consolidation bin must be clearly and legibly displayed on the consolidation bin. It can either be a **tag** or a **fixed display device** (white board or a simple piece of paper) that will be updated every time a dangerous good is removed or added (Section 4.10.2).

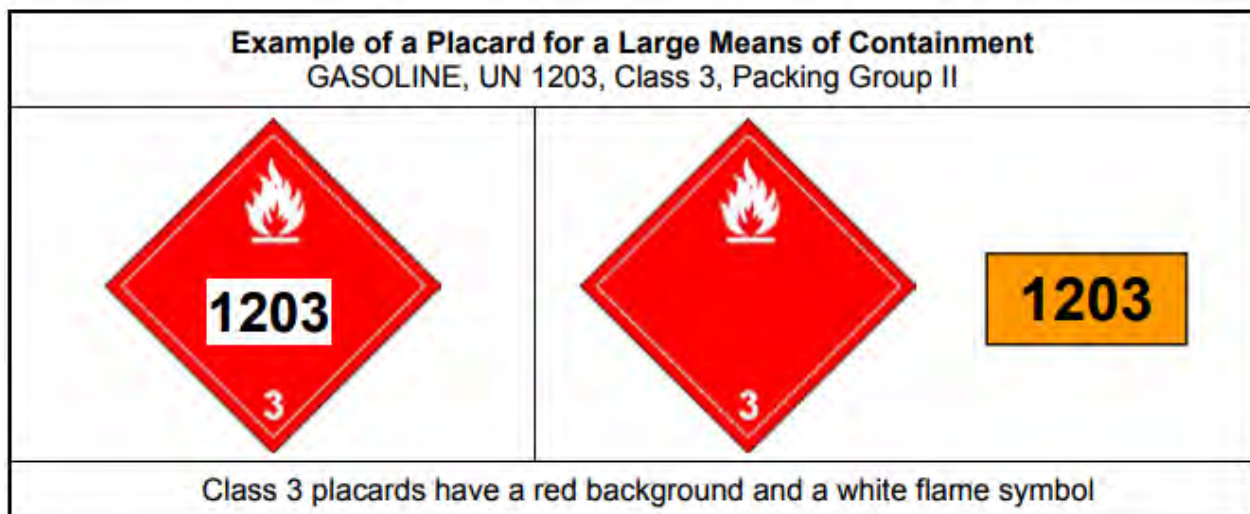
For details on labelling, please consult the "Safety Mark" bulletin published by Dangerous Goods and Rail Safety.

Large Means of Containment

A large means of containment has a capacity greater than 450 litres. Placards representing the various chemical hazards are placed on all four sides of large means of containment or transport units. Placards can be used to represent both the primary and the subsidiary class of the dangerous goods in transport.

Each side of a placard must be at least 250 mm in length. Except for the DANGER placard, all placards have a line running 12.5 mm inside the edge. If the large means of containment has an irregular shape or its size is too small, the placard can be reduced in size, but the dimensions must never be less than 100 mm on each side [Section 4.7(3)].

The UN number must be displayed in the center of the placard or on an orange panel next to the placard in black numerals not less than 65 mm high. The letters "UN" are not displayed.

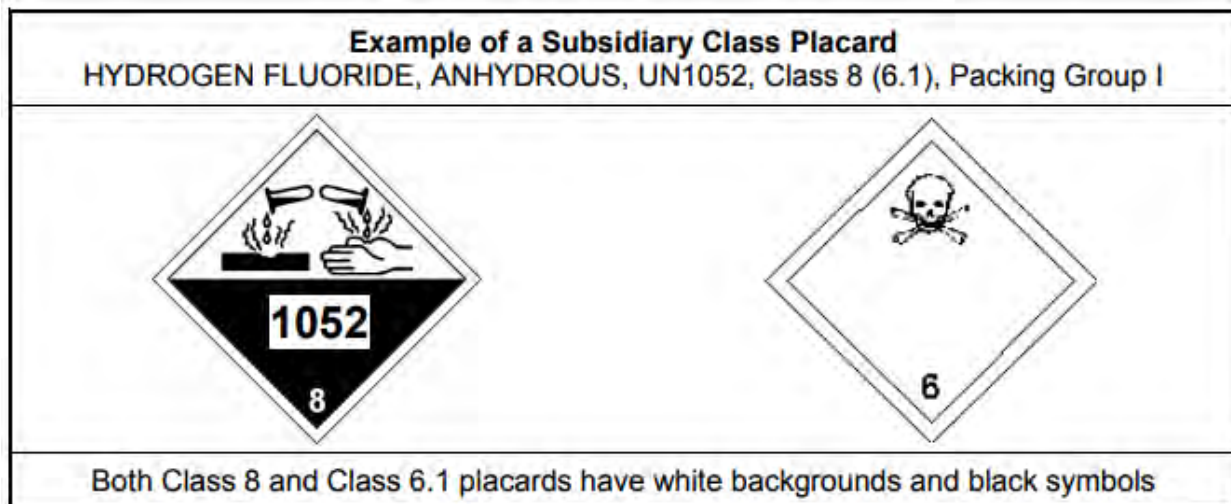


[Subsection 4.8(2)].

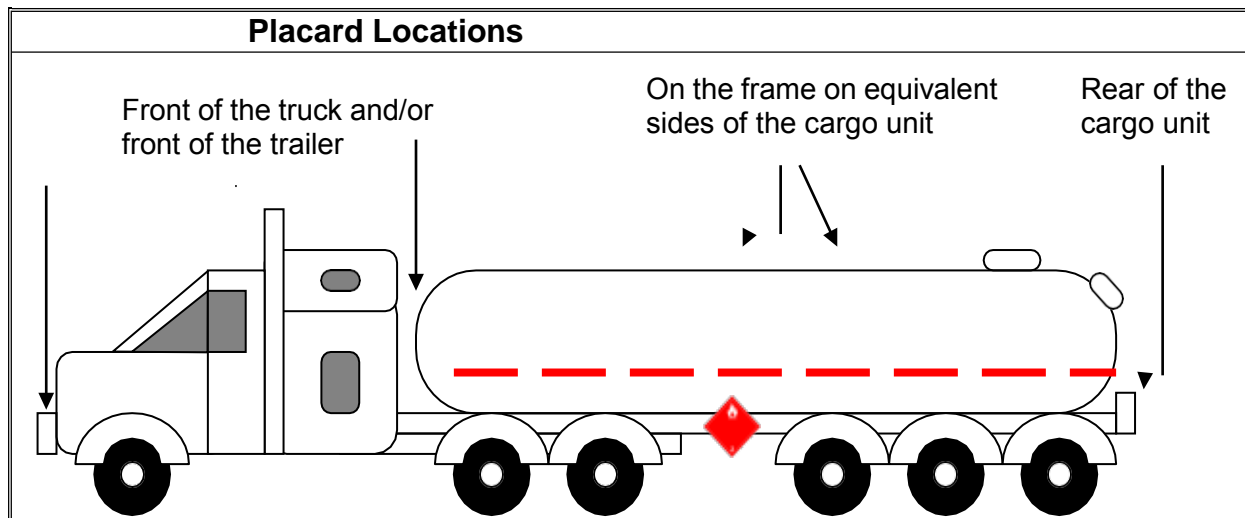
A subsidiary class placard must also be displayed on each side and each end of a large means of containment for dangerous goods for which an ERAP is required and that have a subsidiary classification of:

- Class 1: the placard will be the same as for Classes 1.1, 1.2 and 1.3.
- Class 4.3.
- Class 6.1, in Packing Group I.
- Class 8, and the UN number is UN2977 and UN2978 (both these products are uranium

hexafluoride radioactives) [Section 4.15.1].



A placard, or a placard and UN number, must be displayed on each side and on each end of a large means of containment except in the case of a large means of containment that is permanently connected to a frame. Placards may be displayed on the **frame** if the resulting position of the placard, or the placard and UN number, is equivalent on each side and on each end of the means of containment. In the case of a large means of containment that is a trailer unit, the placard, or the placard and UN number, may also be displayed on the **front of the vehicle** that is attached to the trailer unit rather than on the leading end of the trailer unit. The placards must be displayed on all four sides of a large means of containment [Section 4.15.3],



and must be visible, legible and displayed against a background of contrasting colour [Section 4.6].

If two or more dangerous goods have different UN numbers but are identified by the same placard or placards, the placard or placards are required to be displayed only once on each side and on each end of a large means of containment regardless of how many products in the large means of containment have that class (primary or subsidiary) [Section 4.15].

DANGER PLACARD

The display of a DANGER placard is not mandatory, but it is permitted to be displayed on a large means of containment instead of any other placard if the large means of containment contains two or more dangerous goods that require different placards and the dangerous goods loaded into the large means of containment are contained in two or more small means of containment [Section 4.16 (1)].





The DANGER placard must not be displayed on a large means of containment for [Section 4.16 (2)]:

- a) Dangerous goods that have a gross mass greater than 1 000 kg, are included in the same class and are offered for transport by one consignor.
- b) Dangerous goods that require an Emergency Response Assistance Plan (ERAP).
- c) Dangerous goods included in Class 1, Explosives.
- d) Dangerous goods included in Class 2.3, Toxic Gases.
- e) Dangerous goods included in Class 4.3, Water-reactive Substances.
- f) Dangerous goods included in Class 5.2, Organic Peroxides, Type B, liquid or solid, that require a control or emergency temperature.
- g) Dangerous goods included in Class 6.1, Toxic Substances, subject to Special Provision (Refer to Pages 7 and 8)
- h) Dangerous goods included in Class 7, Radioactive Materials, that require a Category III Yellow label [Subsection 4.16(2)].

Orientation of Labels and Placards

Labels and placards must be displayed “square on a point”. That is, resting on a corner rather than on a side [Section 4.7(1)]. The example below shows the proper orientation.

Safety Mark Orientation	
Correct	Incorrect
	

For details on safety marks, please consult the “Safety Mark” bulletin published by Dangerous Goods and Rail Safety.

TRAINING

Anyone who handles, offers for transport or transports dangerous goods must be adequately trained and have a valid Dangerous Goods Training Certificate or must be in the presence of and under the direct supervision of a trained person. [Section 6.1].

A person is adequately trained if the person has sound knowledge of the topics listed below that relate directly to the person’s duties [Section 6.2]:

- classification of dangerous goods, shipping names, UN numbers, packing groups;
- schedules 1, 2 and 3
- shipping documentation;
- safety marks;
- certification safety marks, safety requirements and safety standards;
- emergency response assistance plan requirements;
- reporting requirements;
- safe handling and transportation practices, including characteristics of dangerous goods;
- proper use of equipment; and
- emergency measures to take in case of releases.

The employer issues a training certificate when he/she has reasonable grounds to believe that an employee possesses adequate training. The training certificate may be in paper or electronic format. A training certificate must have the following information [Section 6.3(1)]:

- the name and address of the place of business of the employer,
- the name of the employee,
- the date when the training certificate expires preceded by the words “Expires on” , the aspects of handling, offering for transport or transporting dangerous goods for which the employee is trained, and
- the signatures of the employer and the employee [Section 6.3(3)]

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A self-employed person who has reasonable grounds to believe that he or she is adequately trained and who will perform duties to which the training relates must issue to himself or herself a training certificate [Section 6.3(2)].

The employer or self-employed person must keep a record of training and a copy of a training certificate from the date the training certificate was issued until two years after it expires [Section 6.6].

The training certificate must be immediately presented to an inspector who requests it [Section 6.8].

REPORTING REQUIREMENTS

Any person who has the charge, management or control of the Dangerous Goods must report a release or anticipated release of dangerous goods that are being offered for transport, handled or transported by road vehicle, railway vehicle or ship as soon as possible, after a release or anticipated release. The verbal report has to be made to any local authority that is responsible for responding to emergencies at the location of the release or anticipated release. The report must be made if the dangerous goods are, or could be, in excess of the quantity set out in the following table.

Class	Packing Group or Category	Quantity
1	II	Any quantity
2	Not applicable	Any quantity
3, 4, 5, 6.1 or 8	I or II	Any quantity
3, 4, 5, 6.1 or 8	III	30 L or 30 kg
6.2	A or B	Any quantity
7	Not applicable	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substance Regulations, 2015"
9	II or III, or without packing group	30 L or 30 kg

Local reporting authorities in Alberta include **911** (or local police) and the **Dangerous Goods and Rail Safety Section of Alberta Transportation** (1-800-272-9600)

The Emergency Report provided to the local authority referred to in Section 8.2 must include the following information:

- the name and contact information of the person making the report;
- the date, time and geographic location of the release; or the incident that led to the anticipated release
- the mode of transport used;
- the shipping name or UN number of the dangerous goods;
- the quantity of dangerous goods that was in the means of containment before the release or

- anticipated release;
- f)** the quantity of dangerous goods estimated to have been released; and
- g)** if applicable, the type of incident leading to the release, including a collision, roll- over, derailment, overfill, fire, explosion or load-shift.

The Release or Anticipated Release Report will be required in the following situations [Section 8.4]:

- the death of a person;
- a person sustaining injuries that required immediate medical treatment by a health care provider;
- an evacuation of people or their shelter in place;
- the closure of a facility used in the loading and unloading of dangerous goods, or a road, a main railway line or a main waterway.
- a means of containment has been damaged to the extent that its integrity is compromised;
- the centre sill or stub sill of a tank car is broken or there is a crack in the metal equal to or greater than 15 cm (6 in.).

The Release or Anticipated Release Report must be made to:

- a)** CANUTEC at 1-888-CANUTEC (1-888-226-8832) or 613-996-6666;
- b)** The consignor;
- c)** In the case of dangerous goods included in Class 7, Radioactive Materials, the Canadian Nuclear Safety Commission; and
- d)** In the case of a ship, a Vessel Traffic Services Centre or a Canadian Coast Guard radio station.

Information required on the Release or Anticipated Release are [Section 8.5]:

- a)** the name and contact information of the person making the report;
- b)** in the case of a release of dangerous goods, the date, time and geographic location of the release;
- c)** in the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release;
- d)** the mode of transport used;
- e)** the shipping name or UN number of the dangerous goods;
- f)** the quantity of dangerous goods that was in the means of containment before the release or anticipated release;
- g)** in the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released;
- h)** if applicable, the type of incident leading to the release or anticipated release, including a collision, rollover, derailment, overfill, fire, explosion or load-shift;
- i)** if applicable, the name and geographic location of any road, main railway line or main waterway that was closed;
- j)** a description of the means of containment containing the dangerous goods;
- k)** if applicable, an estimate of the number of people evacuated or sheltered in place; and
- l)** if applicable, the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider.

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After submitting the Release or Anticipated Release Report, the person or the person's employer, must make a follow-up report in writing to the Director General within 30 days after the day on which the report was made [Section 8.6]. The 30-Day Report must include the following information [Section 8.7].

1. the name and contact information of the person making the report;
2. the names and contact information of the consignor, consignee and carrier;
3. in the case of a release of dangerous goods, the date, time and geographic location of the release;
4. in the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release;
5. the mode of transport used;
6. the classification of the dangerous goods;
7. the quantity of dangerous goods that was in the means of containment before the release or anticipated release;
8. in the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released;
9. a description of the means of containment containing the dangerous goods;
10. if applicable, a description of any failure of or damage to the means of containment;
11. information about the events leading to the release or anticipated release of dangerous goods;
12. information as to whether there was an explosion or fire;
13. the name and geographic location of any facility used in the loading or unloading of the dangerous goods that was closed, and the duration of the closure;
14. the name and geographic location of any road, main railway line or main waterway that was closed, and the duration of the closure;
15. if applicable, an estimate of the number of people evacuated or sheltered in place and the duration of the evacuation or shelter in place;
16. if applicable, the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider;
17. if applicable, the ERAP reference number;
18. the date on which the report referred to in section 8.4 was made; and
19. an estimate of any financial loss incurred as a result of the release or anticipated release, and any emergency response cost or remediation costs related to it.

For detailed information on reporting requirements, request the CIC information bulletin entitled Emergency, Release or Anticipated Release Report Requirements.

EMERGENCY RESPONSE ASSISTANCE PLAN (ERAP)

An Emergency Response Assistance Plan (ERAP) is required in instances where dangerous goods are potentially very hazardous when transported in moderate or large quantities. If a large enough amount of these dangerous goods were released, the potential for harm to people and the environment would be great. For this reason, Part 7 of the TDG Regulations requires consignors and importers of dangerous goods to register an ERAP if necessary [Section 7.1].

An ERAP is required for the following circumstances:

A quantity of dangerous goods having the same UN number in one means of containment. If the quantity of dangerous goods exceeds the ERAP limit, an ERAP is required regardless of the size of the means of containment;

A quantity of one or more dangerous goods from one of the following classes that are in

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one or more means of containment [Section 7.1(3)]:

- Class 1 Explosives
- Class 3, Flammable Liquids with a subsidiary class of 6.1, Toxic Substances
- Class 4, Flammable Solids
- Class 5.2, Organic Peroxides, that are Type B or Type C
- Class 6.1, Toxic Substances, Packing Group I

An ERAP is necessary whenever a quantity of dangerous goods that have the same UN number exceeds the ERAP limit if the dangerous goods have an index number greater than that listed in column 7 of Schedule 1 and

- a) if a solid, have a mass that is greater than the index number when that number is expressed in kilograms;
- b) if a liquid, have a volume that is greater than the index number when that number is expressed in litres;
- c) if a gas, including a gas in a liquefied form, that have the same UN number, that are contained in a more than one means of containment, each has a capacity greater than 225 L, either as a single unit or interconnected units through piping arrangement and are mounted permanently on the transport unit. The total capacity if all means of containment is greater than the index number. [Section 7.1(5)]

In many instances dangerous goods do not require an ERAP; however, consignors and importers of dangerous goods must make sure that the quantities of dangerous goods in a consignment do not exceed the ERAP quantity limits.

An ERAP is required if UN1202, UN1203 or UN1863 Dangerous Goods is being transported or imported, in a single train, rail tank cars, if

- a) The rail tank cars are interconnected in such a way that the loading or unloading of more than one rail tank car can be done from the first or last of those rail tank cars; and
- b) 17 or more of the rail tank cars are each filled to 70% or more of their capacity.

If you are not sure whether a consignment of dangerous goods requires an ERAP, you may call the Coordination and Information Centre at 1-800-272-9600. You can obtain an application to register an ERAP by calling CANUTEC at (613)992-4624.

GUIDE FOR DANGEROUS GOODS SHIPPERS

To determine the proper shipping name and/or UN Number, refer to Schedule 1 of the TDG Regulations, which lists regulated dangerous goods by UN Number, or Schedule 3 of the TDG Regulations, which lists regulated dangerous goods alphabetically by shipping name.

STEP 1 – Determine the proper shipping name

The shipper must determine the proper shipping name of the materials according to TDG Regulations, Schedule 1, Column 2.

STEP 2 – Determine the class (and subclass, if any)

Refer to TDG Regulations, Schedule 1, Column 3, and locate the classification and, if any, the subsidiary classification of the product.

STEP 3 – Select the UN Number

Refer to TDG Regulations, Schedule 1, Column 1 and select the UN Number.

STEP 4 – Determine the mode(s) of transport to ultimate destination

- A. As a shipper, you must assure yourself that the shipment complies with various modal requirements.
- B. The modal requirements may affect the following:
 - 1. Packaging
 - 2. Quantity per package
 - 3. Markings
 - 4. Shipping documentation

STEP 5 – Determine and select the proper packaging

- A. Packaging requirements will vary according to modes of transportation.
- B. Some exemptions for packaging may apply. For a full explanation of exemptions refer to Part 1 and Schedule 2 of the TDG Regulations. For example, Section 1.15 (150 kg Gross Mass) and Section 1.17 (Limited Quantities).
- C. If packaged by a prior shipper, make sure the packaging is correct and in proper condition for transportation.

STEP 6 – Prepare the shipping document

- A. The basic requirements for the shipping document include: Shipping name, class, UN number, total quantity, packing group, 24-hour emergency response telephone number, date, name and address of the shipper.
- B. Make all entries on the shipping document legible using the information required and in proper order.
- C. For additional requirements, see Part 3 of the TDG Regulations, or read Part 2 of this document.
- D. A copy of the shipping document must be retained for 2 years by the consignor and carrier.

STEP 7 – Select the proper safety marks and apply as required

- A. Refer to the TDG Regulations, Part 4, for required labels or placards.
- B. For a small means of containment (capacity less than or equal to 450 litres), the shipping name and UN number should be printed on the package.
- C. Unless the vehicle is already correctly placarded according to Part 4 of the TDG Regulations, the consignor must provide the required placards.

STEP 8 – Loading, blocking and bracing

If the shipper loads the freight container or transport vehicle, the shipper is responsible for the proper loading, blocking, and bracing of the materials in accordance with the requirements for mode of transport.

GUIDE FOR DANGEROUS GOODS CARRIERS

If the shipment is packaged and loaded by the shipper, it may be difficult for the carrier to examine it physically. Therefore, it is very important to carefully review the shipping documents. Always visually inspect the transport vehicle or freight container for leaks or potential problems.

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STEP 1 – Determine Employee Qualifications

An employer is required to ensure employees who have any responsibility for handling or transporting of dangerous goods are thoroughly trained. The following suggestions will help to meet this requirement:

- A. Identify all personnel who have dangerous goods handling or transportation responsibility.
- B. Determine training needs. Training for dangerous goods includes the following criteria:
 - a. classification, nature and characteristics of dangerous goods;
 - b. packaging requirements;
 - c. safety marking requirements;
 - d. documentation requirements;
 - e. special precaution requirements;
 - f. reporting requirements;
 - g. emergency action requirements;
 - h. proper equipment uses;
 - i. safety equipment use.
- C. Ensure that those needing training receive training specific to their duties.
- D. Issue training certificates to the trained personnel. Specify the aspects of training received.
- E. Maintain records of training for 2 years from the date of expiration of the certificate.
- F. Review training whenever necessary. New training certificates must be issued to trained employees every 3 years. Old training certificates must be retained by the employer for two years after expiry.

STEP 2 – Determine condition of transport vehicle

- A. Ensure that the cargo space is suitable for loading. It should be free of nails and other protruding sharp objects.
- B. Ensure the type of vehicle is suitable for the material to be loaded. It must be in compliance with the Traffic Safety Act.

STEP 3 – Is the shipment acceptable for transport?

- A. Determine if the shipping document is accurate and complete.
- B. Determine the proper placards and UN numbers are displayed if required.
- C. Determine that each package is properly marked and labeled as required.
- D. Determine whether authorized packaging has been used and whether it is in proper condition for transportation.
- E. The freight is adequately blocked and braced to prevent movement and damage in transit.

STEP 4 – Is the shipment to be interlined?

- A. An interlined shipment is one in which the mode of transport will change before the shipment reaches its destination; e.g., from road transport to air transport. Properly prepare the material so the secondary carrier will accept it from you.
- B. Changes in the mode of transport may affect the following requirements
 - 1. packaging;
 - 2. quantity per packaging;
 - 3. marking;
 - 4. labeling;

5. shipping documentation.

STEP 5 – Prior to loading the shipment

- A.** Determine documentation matches the shipment.
- B.** Check for damaged or leaking packages.
- C.** Proper placards and UN numbers are displayed, if required.
- D.** Ensure the required documentation is provided to the driver/pilot/conductor/captain.
- E.** Avoid loading toxic substances with foodstuffs.

STEP 6 – Incident Reports

The person in charge of the dangerous goods at the time of the incident is responsible to report a dangerous occurrence as defined in Part 8, section 8.1 of the TDG Regulations.

Dangerous Goods Shipping Document for Road Transport on Canadian shipments

CONSIGNOR				DESTINATION (City-Town)		
Name: Address:				Name: Address:		
Name of Carrier		Prepaid		Transport Unit Number		
Collect		<input type="checkbox"/>		<input type="checkbox"/>		
Point of Origin				Shipping Date		Shipper's No.
REGULATED DANGEROUS GOODS						
UN Number	Shipping Name	Primary Class	Subsidiary Class	Packing Group	Quantity	Packages Requiring Labels
24-Hour Number: _____						
ERAP Reference _____ and Telephone Number _____						
Consignor's Certification I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations.						
Name of Consignor: _____						
Special Instructions						
NON-REGULATED GOODS						
Packages	Description of Articles			Weight		
Received in apparent good order				<div style="border-bottom: 1px solid black; width: 100%;"></div>		
Consignee's Signature				Shipper's Signature		
Received in Apparent Good Order	Driver's Signature			Driver's No.		

Please note that this sample shipping document contains some information that is not required in the TDG Regulations. The additional information reflects current industry practices.

18.26 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

Workplace Hazardous Materials Information System legislation came into effect in October 1988. The intent of the legislation was to ensure that workers know the hazards associated with the use, handling and storage of controlled products such as chemicals and biological substances; and the precautionary measures to prevent worker injury or illness.

WHMIS provides the legislated tools for all employers to receive up-to-date materials information needed to educate workers regarding the inherent risks associated with dangerous and toxic substance use, storage and handling in the workplace.

WHMIS gives workers the right to know about the chemical and/or biological hazards associated with products they may come in contact with, by providing information in three (3) ways:

1. Labels
2. Safety Data Sheets (S.D.S.'s)
3. Training

Labels

The supplier is required to provide a label for each class that the product falls under. The label has a unique border, and in addition to prominently displaying the prescribed information, it must be legible, be written in both official languages, and reference the Material Safety Data Sheet(s).

Supplier labels are required to be affixed to containers of controlled products with a volume of over 100 ml, and must include:

- Product identification
- Appropriate hazard symbols
- Risk phrases (such as "Dangerous if Inhaled")
- Precautions (such as "Wear Protective Glasses")
- First Aid measures
- Supplier identifier
- Reference to the SDS
- All must be inside a WHMIS frame and in English and French

Workplace labels are required when controlled products are produced and used in a workplace or have been decanted or transferred from the original supplier-labeled container to another container. If a label is missing or illegible, they should be replaced with a workplace label.

A workplace label must include the following items:

- Product identifier
- Safe handling instructions
- Reference to the SDS

Material Safety Data Sheets (MSDS) is now SDS

Data sheets must provide the following items:

- Product identifier
- Hazardous ingredients
- Physical data
- Fire and explosive data
- Reactivity data
- Health hazards

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- Preventative measures
 - First Aid measures
 - Name and phone # of person who prepared the SDS and the date of preparation.

The SDS must be re-evaluated and re-written when altering, changing or modifying the formula of the controlled product(s), or at least every three (3) years.

Worker Education and Training

Worker education for controlled products will be provided as an integral part of the WHMIS information delivery system. Worker education includes all those activities that provide knowledge and skills to workers so that they may work safely with or near controlled products at the workplace. WHMIS requires that a program of instruction be established that not only provides training in specific work procedures, but also information about requirements for labels, SDSs and information of significance to worker health and safety.

Information and instruction will be provided to all workers who work with or in proximity to a controlled product. A worker who works with a controlled product is any worker who stores, handles, uses or disposes of a controlled 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. The physical area of risk depends on the quantity of product, its form, the extent of enclosure during its use, scheduling of work activities and persistence of the product after its release.

A company-specific training component will be provided by Pidherney's. This education and training to result in all employees having and being able to apply, the information necessary to conduct their work duties in a safe and productive manner.

WHMIS legislation is designed to reduce the incidence of illness and injury resulting from the use of hazardous substances in the workplace.

Pidherney's encourages all of our workers to seek materials information, to consult data sheets and to participate in and actively support, these workplace precautionary measures instituted in the interests of employee health and safety.

We shall endeavor to ensure that:

- Ensure that every container in the workplace that contains hazardous material is, and remains labeled in the prescribed manner.
- Ensure that Material Safety Data Sheets containing such information as may be prescribed are obtained or prepared by the employer and are not more than 3 years old.
- Ensure that labels and SDS labels are available.
- Ensure that a copy of every SDS is made available in the workplace in such a manner that it is readily accessible by all workers who may be exposed to the hazardous material.
- Ensure that the workers exposed, or likely to be exposed to a hazardous material, receive instruction and training, and further ensures that the worker participates in such training as prescribed.

What is a pictogram?

Pictograms are graphic images that immediately show the user of a hazardous product what type of hazard is present. With a quick glance, you can see, for example, that the product is flammable, or if it might be a health hazard.

Most pictograms have a distinctive red "square set on one of its points" border. Inside this border is a symbol that represents the potential hazard (e.g., fire, health hazard, corrosive, etc.). Together, the symbol and the border are referred to as a pictogram. Pictograms are assigned to specific hazard classes or categories.

The graphic below shows hazard pictograms. The bold type is the name given to the pictogram; the words in the brackets describe the hazard.

18.27 UTILITY TASK VEHICLE AND ALL TERRAIN VEHICLES

Utility Task Vehicles (UTVs) and All-Terrain Vehicles (ATVs) are commonly used in operations as a tool of the trade. While they can enhance the efficiency of work tasks, they present unique hazards. Nationwide, over 100,000 injuries and several hundred deaths are attributed to ATVs each year.

General Precautions

- Restrict ATV operation to trained competent employees. Competent employees are determined by training received and using a competency check-list which is completed by an experienced ATV operator.
- Prior to operation, riders should read the equipment manual, participate in hands-on instruction, and demonstrate competency to an experienced ATV operator.
- The ATV should be thoroughly inspected prior to each use, including tire condition and pressure, driveshaft or chain condition, lever and cable condition and smooth operation, operable lights and ignition/stop switches, and secure wheel nuts/pins.
- All riders must use appropriate protective gear, including a DOT rated helmet, long pants, eye protection (or face shield), and sturdy boots with ankle supports. Consider riding gloves and long-sleeved shirt or jacket, as well. ***Operators and passengers are exempt from the need to wear helmets, if workers are protected by a rollover protective structure and are wearing seat belts.***
- Do not carry passengers where manufacturer seating and safety restraints are unavailable.
- When carrying a load, ensure that it is properly balanced and secured to a rack that is intended for this purpose.
- Do not operate an ATV on pavement. The vehicle is not designed to be used on paved surfaces and may be difficult to control.
- Avoid operating an ATV on a public road. If absolutely necessary, the ATV must be in use specifically for oilfield related purposes, have head-lights and tail-lights illuminated, fitted with a bicycle flag that is a minimum of 5 feet off of the ground, and operated by a licensed driver.
- Do not consume alcohol or drugs before or while operating an ATV.
- Be familiar with the area of operation and do not operate the ATV at excessive speeds. Go at a speed that is proper for the terrain, visibility conditions, and your experience.
- Never attempt to do wheelies, jumps or other stunts.
- Be cautious when operating an ATV, especially when approaching hills, turns, and obstacles and when operating on rough terrain.

Selecting the Right ATV for the Work

When selecting an ATV for your operations, you need to consider many factors and features: intended use of the ATV, terrain and ground conditions, power, speed, gear ratio, suspension, center of gravity, drive mechanism, brakes, lights, starter, seat, carrying racks, and reverse gear. The most important factor, however, is to purchase a "workhorse" ATV, not a "thrill-type" recreational model. The workhorse model is four-wheeled, and designed for power, traction, and stability. Recreational models are built for speed and thrills and are not suitable for the workplace. The following information is provided to help you select an appropriate vehicle for your operations.

Suspension Systems

The only suspension system provided on some ATV models is the low pressure (usually two to six psi) balloon tires. These can provide a smooth ride and good vehicle control at slow speeds on a smooth surface. However, with added speed or on rough terrain, they tend to bounce and

pitch up and down and from side to side. Control of the machine becomes more difficult and the ride is more tiring on these models. Some models have suspension systems only on the front wheel(s), while other models include suspension systems on all four wheels. Some use only coil springs, others use both shock absorbers and coil springs. The latter type, both coil springs with shock absorbers, provides the best traction, maximum control, and the smoothest ride. Other models are more likely to cause or aggravate back or leg problems.

Drive Lines

For most agricultural operations, an ATV with an automatic clutch, reverse gear, shaft drive and a differential with a locking mechanism is appropriate.

A power take-off is available on some models, for operating attachments such as mowers, spray equipment, and other machinery. The anticipated use of the machine would determine whether or not this feature is desired.

Power and Speed

ATVs come equipped with engines ranging from less than 100 cc to over 500 cc, and with gear ratios that permit speeds in excess of 50 mph. The use(s) planned for the ATV should determine the size of the engine and the gear ratio. There are few, if any, justifications for a maximum speed of more than 20 to 25 mph on ATVs for agricultural operations. Serious ATV accidents are frequent at higher speeds. Make sure the ATV's gear ratio fits your needs.

Other Features

- Select a model with both front and rear brakes with independent controls.
- The rear fenders and foot peg or rest should be designed to make it difficult or impossible for the foot to slip off and be caught under the rear wheel.
- The muffler, exhaust, and other hot engine components should be located, or guarded, to prevent burns. The design should also prevent the build-up of dry trash near hot exhaust parts to reduce the risk of fire.
- If carrier racks are installed on the ATV, both front and rear racks are recommended. This permits the load to be balanced front and back to maintain stability. Remember, an extra load, such as carrier racks or a passenger, significantly raises the center of gravity of the loaded machine and increases the risk of an overturn.

18.28 WORKING AT HEIGHTS

The purpose of this program is to provide fall protection information, including protection planning, potential hazards, PPE, and legislation to prevent injury to employees while performing work assignments at elevated heights.

18.28.1 RESPONSIBILITIES

Management

Management must ensure that sufficient resources essential to the implementation and maintenance of a fall protection plan is available.

Supervisors

A competent person must be appointed to develop, implement, maintain, and evaluate the fall protection plan. This person must:

- Define, document, and communicate roles, responsibilities, and accountabilities of all levels that may be affected by plan
- Evaluate the need to work at height
- Ensure all reasonably practicable measures and methods are taken to eliminate hazard
- Ensure all workers are properly trained in the use, maintenance and care of personal fall equipment and recognize the hazard associated with their use
- Ensure all devices, equipment, and materials used for fall protection are maintained at design specifications
- Ensure all devices, equipment, and materials used for fall protection are inspected/certified as per manufacturer and/or local regulatory/approved standards
- Implement emergency response procedures and to investigate falls
- Ensure compliance with all applicable regulatory requirements and reporting of performance to top management for review

Workers

Any worker that may be exposed to working at heights must receive training in the proper use of fall arrest systems.

Before any work commences, workers must develop and be aware of the fall rescue plan for their worksite.

Any worker that may be exposed to a fall from heights that is 3 m or greater is required to use fall protection equipment. However, all workers that are required to perform tasks at height on a client's worksite must adhere to the client's height restriction requirements of 1.8m or less and don fall protection when working at or above these restricted heights.

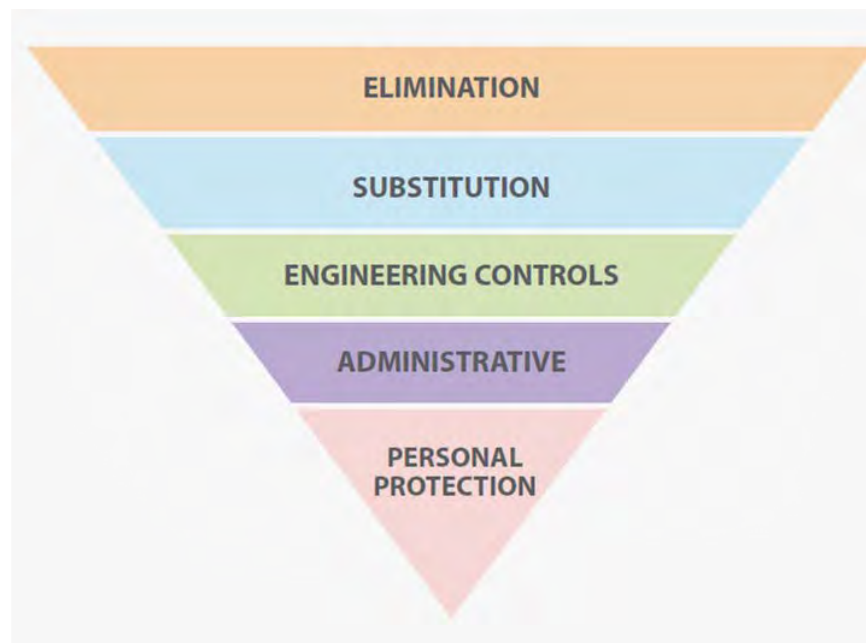
RISK CONTROL MEASURES



HIERARCHY OF CONTROL

If risks exist, the employer shall, as far as reasonably practicable, put measures in place to control the risks. Any measures selected to reduce or maintain a risk shall be carefully assessed and implemented to ensure its effectiveness.

The hierarchy of control is a list of measures that may be used to reduce/maintain a risk. The measures are listed in descending order of effectiveness, so the item at the top of the list will be the most effective measure.



Elimination

Elimination involves a total removal of hazards, making all the identified possible accidents and ill health possible. If all hazards are removed, there is no longer a requirement for specialized PPE and action plans. Elimination is a permanent solution and should be the first attempted control measure.

Substitution

Substitution involves replacing one hazard for another that presents a lower risk to the health and safety of workers. For example, working from an elevated platform, that has guard-rails, rather than working from a ladder.

Engineering Controls

Engineering controls are physical control measures that limit the potential hazard. These would include structural changes such as installing guard-rails at open sides to prevent persons from falling over.

Administrative Controls

Administrative controls are systems of work or work procedures that help to reduce the exposure of workers to the risks of falling, limit the frequency and duration of exposure, and limit the number of persons involved in the risk.

Administrative controls may also be used to support other control measures. For example, if you use temporary work platforms rather than ladders, you may need safe work procedures for the safe use of temporary work platforms. The temporary platform would be an engineering control and the safe work procedures would be administrative controls.

When creating administrative controls such as safe work procedures, you should involve the people who regularly perform the tasks as they often have a good understanding of the risk involved and how to limit them.

It is necessary to ensure that all information is adequately and effectively communicated to all levels on the worksite, through safety bulletins and worksite meetings.

Prohibition of Access

Prohibition of access involves marking out an area with sufficient signage and, if possible, physical barriers to warn against entering a hazardous area. Employers should provide adequate information and supervision to ensure that no one enters a “No Entry” area.

Safe Work Procedures

Safe Work Procedures are the most common form of administrative control. They are detailed instructions on how jobs are to be performed, persons involved, safety precautions, and training/certification required. These procedures must be clearly communicated to all workers involved in the job and to all members of the public that will be affected by the job.

Make sure that work is well organized so that workers are not increasing the risk of hazards. For example, sequence jobs so that different trades are not working above or below each other at the same time.

Personal Protection

Personal protective equipment (PPE) is at the very bottom of the Hierarchy of Control and should be used only as a last resort if all other control measures prove to be inadequate.

Effectiveness of PPE is dependent on the correct equipment being chosen, fitted and worn properly at all times when required.

The following questions should be considered when selecting PPE:

- What kind of hazard/risk has been identified?

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- What areas of the body need to be protected?
- What degree of protection does the worker require?
- Is the protective equipment relatively comfortable and easy to use?
- Is the protective equipment readily available to workers?
- Is the protective equipment reliable?
- Is the protective equipment easy to inspect and maintain?

Inspection and Maintenance

Inspections are important for ensuring equipment is free from observable defects and that it has not reached/passed its recommended usage life. Inspections must be conducted before each use of the fall protection equipment and must only be performed by a trained and competent person.

A maintenance program should be established and should include:

- An inventory of equipment that requires regular maintenance
- Frequency of inspection and maintenance
- Procedures of inspection and maintenance
- Preventative maintenance, such as servicing
- Repair for damaged items
- Replacement for irreparable items
- Record keeping for damages, flaws detected, preventative maintenance, repairs and replacements

INSPECTION OF FALL ARREST SYSTEMS

Fall arrest systems should be periodically inspected by a competent person and include the following:

- Inspection of the rope/webbing, including anchorage lines, for defects or damage; and checking the condition of the anchorage
- Inspection of the harness body for damage to the mounting ring or the body; checking for any signs of activation of the fall arrest indicator; and ensuring all labels are present and legible.
- Inspection of the locking mechanisms and rope guides for excessive wear; ensure that the rope runs freely through the anchorage; and that the locking mechanism works properly.
- Ensuring that snap hooks and links are in proper working condition

Pre-Use Check for Lanyard and Flexible Anchorage Lines

Inspect lanyards and flexible anchorage lines for:

<ul style="list-style-type: none"> • Cuts/frays • Excessive wear • Abrasion (furriness), particularly to load bearing parts • Stitching (unauthorized repair) • Discoloration (sign of chemical or UV damage) 	<ul style="list-style-type: none"> • Hardening/stiffness • Heat glazing/burns (heat damage) • Dirt, oil, grease • Age • Flattening/thinning • Lumps
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Pre-Use Check for Harnesses

Inspect harness bodies for:

- Inside and outside textile attachment point loops for all features listed under checking procedure for textile-based equipment above
- Fastening and adjustment buckles as well as any other safety critical metal and plastic parts for

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Correct assembly
Correct functioning
Excessive wear

Corrosion
Cracks
Other damage

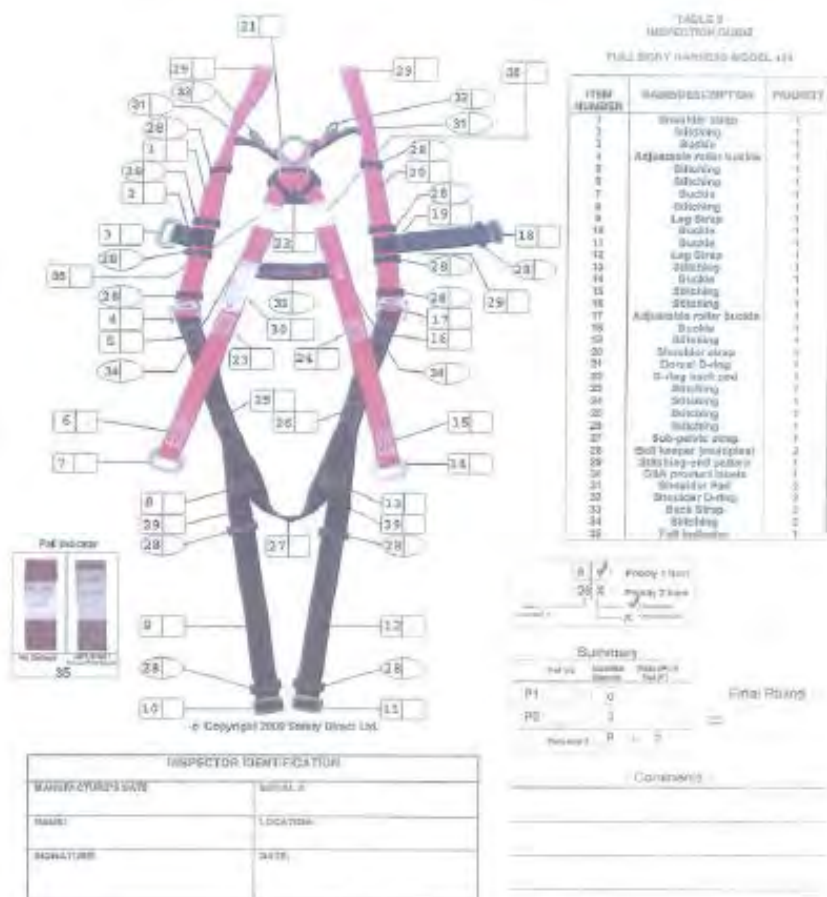
Pre-Use Check for Connectors

Inspect connectors for:

- Obvious damage or deformations (bent, twisted, corroded, worn, cracked, etc.), especially at contact points
- Rust/corrosion
- Contamination by chemicals (pitting/flaking)
- Build-up of foreign matter (grit, grease, paint)
- Cuts/serrations/blurring, heaving marking or scoring
- Hinge pin (ensure it is in good condition)
- Catch pin (ensure it is not bent)
- Functionality of moving parts such as locking mechanisms

Pre-Use Check for Shock Absorbers

Inspect shock absorbers for signs of activation and any wear/tear of the attachment points.



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Safety Harness Inspection Checklist

FALL PROTECTION EQUIPMENT INSPECTION INSTRUCTIONS PRIOR TO USE		PERIODIC INSPECTION INSTRUCTIONS		TABLE 1 NON-ACCEPTANCE CRITERIA *	
FREQUENCY	INSPECTION INSTRUCTIONS	1	2	PART	TYPES OF DAMAGE
BEFORE EACH USE	<p>WEAVING Visual inspection: Check at webbing for signs of cuts, pinching, excessive fraying, pulled or broken stitching, abrasion, excessive wear, altered or missing straps, burns, and heat or chemical exposure of the webbing.</p> <p>Pass/Fail criteria: If any of the above defects are observed on the webbing, which would compromise the integrity of the harness, the harness should be removed from service.</p> <p>CHEST STRAP Visually check the fastening mechanism.</p> <p>Pass/Fail criteria: If the fastening mechanism is found to be defective the harness should be removed from service. For any fastening device, other than a metal buckle the harness should be removed from service.</p> <p>HARDWARE Determine the design of all buckles. Any buckles that are torso bar slide buckles, and not two piece metal buckles should be removed from service.</p> <p>Appearance: Visually check all hardware for cracks, burrs, deformations, dents, nicks, corrosion or any other significant defects.</p> <p>Pass/Fail criteria: Remove from service if any cracks are apparent. Minor defects are acceptable if the function of the hardware is not impaired.</p>	<p>Spread the harness out on a flat surface.</p> <p>Visually inspect each component and assess its condition. Refer to Table 1 "Non-acceptance criteria" and Table 2 "Inspection guide" for guidance in making the Pass/Fail determination.</p> <p>Mark either "✓" (acceptable) or "✗" (not acceptable) in the corresponding empty box for each component.</p> <p>Commenting with the Priority 1 items (rectangular boxes) count the total number of ✗'s. Enter this total in the summary.</p> <p>Count the total number of ✗'s for the Priority 2 items (oval boxes). Enter this total in the summary.</p> <p>In the summary box, determine pass (P) or fail (F) for each of the two priorities.</p> <p>Determine the overall evaluation of the harness and mark either pass (P) or fail (F) in the large box.</p> <p>Fill in the inspector identification information in the area provided at the bottom left of the reverse side of this card.</p>	<p>Metallc</p> <p>Diagonal Drip Burn Abrasion</p> <p>Corrosion Cracks Dents Nicks Deformation</p> <p>Plastic</p> <p>Along body webbing Along chest strap Along leg webbing</p> <p>Stitching</p> <p>Along body webbing Along chest strap Along leg webbing</p> <p>Webbing</p> <p>Along body webbing Along chest strap Along leg webbing</p>		
		3	4	<p>Summary</p> <p>Priority 1 items: <input type="checkbox"/> Pass <input type="checkbox"/> Fail</p> <p>Priority 2 items: <input type="checkbox"/> Pass <input type="checkbox"/> Fail</p> <p>Overall: <input type="checkbox"/> Pass <input type="checkbox"/> Fail</p>	
		5	6	<p>Inspector Identification</p> <p>Name: _____</p> <p>Job Title: _____</p> <p>Date: _____</p>	
		7	8	<p>Notes</p> <p>_____</p> <p>_____</p> <p>_____</p>	

Storage and Maintenance of Fall Protection Equipment

- Never store the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outside exposed to the elements (i.e., sun, rain, snow, etc.).
- Hang equipment in a cool dry location in a manner that retains its shape.
- Always follow manufacturer recommendations for inspection.
- Clean with a mild, nonabrasive soap, and hang to dry.
- Never force dry or use strong detergents in cleaning.
- Never store equipment near excessive heat, chemicals, moisture, or sunlight.
- Never store in an area with exposures to fumes or corrosive elements.
- Avoid dirt and build-up on equipment.
- Never use the equipment for any purpose other than personal fall arrest.
- Once exposed to a fall, remove equipment from service immediately.

TRAINING

All persons that may encounter working at heights should be provided with sufficient information, instruction, and training. It should help them understand:

- The nature of fall hazards to which they are exposed
- The risk of injury associated with the task
- The control measures that are needed, include Safe Work Procedures and use of PPE
- Proper usage and maintenance of equipment, such as inspections
- Procedures to follow in the event of an emergency, such as rescue, accident, or injury
- The amount of training a person requires depends on the risk involved, their level of skill involving the equipment, and the complexity of the tasks and procedures.

Information should be provided in a format that is easily understood by all levels and can be administered through tool box meetings and on-the-job training.

*Classroom teachings should be supplemented by hands-on training.

TRAINING FOR PERSONS USING INDIVIDUAL FALL ARREST SYSTEMS

- Workers using individual fall arrest systems should be trained and instructed in:
- The correct fitting and attachment of safety harnesses;
- The dangers of using incompatible hardware;
- The inspection (see Sect. 7.1), maintenance and storage of equipment;
- The correct anchorage, installation and use of the system; and
- Emergency rescue procedures (see Sect. 10.2)

Upon completion of training, workers should be assessed for their competency in the safe use of the equipment.

ACCIDENT/INCIDENT INVESTIGATION

All accidents/incidents should be investigated for the following:

- Underlying deficiencies in existing fall protection plan, which may have contributed
- Identify need for corrective action to address such deficiencies
- Identify the opportunities for preventative actions
- All investigation results should be promptly communicated to all parties involved and be properly documented.

EMERGENCY RESPONSE

EMERGENCY PREPAREDNESS

Emergency responders must be appointed, adequately trained, and be easily identified by all workers. Emergency response equipment must be readily available to all workers on site and a written emergency response plan (ERP) must be established. The ERP should include:

- Rescue method
- Equipment required
- Procedures to gain access into less accessible areas
- Training required

Workers must be provided with information on who to approach or call in case of emergency and what procedures to follow, including those for persons suspended in safety harnesses during fall arrest. Training in self-rescue techniques is greatly recommended for those workers that will be using safety harnesses.

Provisions of first aid treatment supplies and facilities should be considered. Refer to OH&S Code Schedule 2 for regulatory first aid requirements.

RESCUE PROCEDURES FOR FALL ARREST SYSTEMS

The immediate rescue of a worker after an arrested fall can prevent further injuries, such as suspension trauma. Before any work commences that uses a fall arrest system; a fall arrest rescue plan must be developed.

Emergency plans and rescue operations should consider the following:

- Type of equipment required for rescue
- Must be suitable for all foreseeable situations

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- Existing equipment such as mobile elevated work platforms and scissor lifts may be used if suitable/available
- Installation of individual fall arrest systems and individual rope systems should be at locations where it is possible to assist or rescue a person quickly, if required
- Ensure all workers using fall arrest systems are familiar with devices before commencement of work
- Make provisions for access to first aid facilities
- Rescue team should include persons trained in first aid in the event of injuries occurring during the fall itself
 - Details of additional support facilities
 - Location
 - Contact information
 - Availability of emergency services, ambulance and hospitals
 - An effective and readily available method of communication

PRECAUTIONS FOR SUSPENSION TRAUMA

Suspension trauma may occur when a person has an arrested fall and is suspended in an upright position for a long period of time. Legs dangling without support causes blood not to travel out of the legs and back to the heart, which may cause:

- Fainting or loss of consciousness
- Death
- Loss of limbs

Depending on a person's susceptibility, conditions may elevate quickly if dehydrated or working in extreme temperatures.

The rescued worker must sit with legs horizontal and torso vertical to allow sufficient time for blood to return to heart and circulation to return to normal.

RESCUE OF WORKERS WHO ARE USING INDIVIDUAL FALL ARREST SYSTEMS

The immediate rescue of a worker after an arrested fall can prevent further injuries, such as suspension trauma.

Written rescue procedures should include plans for:

- Preventing prolonged suspension
- Identifying symptoms of suspension trauma (light headedness, nausea, paleness of skin, hot flushes, breathlessness)
- Performing rescue and treatment as quickly as possible

A person should not use a fall arrest system unless there is at least one other person present on site who is trained to conduct rescue operations in the event of a fall.

It is recommended to prepare specialized rescue equipment that is designed and certified to cope with the additional load during a rescue instead of improvising a rescue plan using existing equipment.

Supervision

A competent person should be assigned to provide supervision for workers to ensure that they are not exposed to hazards and to ensure, in the event of a fall, that they are rescued as soon as possible.

Supervision is especially important if a worker is new to the use of fall protection or the current work environment.

Persons performing supervision must ensure that:

- Required safety measures are in place before the commencement of the work;
- Workers are adequately supervised particularly when working in an elevated position; and
- Only workers who have received appropriate training and instruction in relation to the tasks they are to perform are to carry out the work.

RISK MANAGEMENT

Risk management involves identifying hazards, assessing risks, implementing control measures, and monitoring and reviewing those control measures.

Hazard identification and risk assessment are fundamental tools that identify hazards, assess risk levels, and determine suitable control measures. These tools should be reviewed periodically to ensure their effectiveness.

HAZARD IDENTIFICATION

Hazard identification is the process of recognizing any work process, activity, or situation with potential to cause injury or harm. It is important to plan the process for hazard identification and, while the emphasis is on fall protection and prevention, it is important to also mention other hazards such as manual lifting, noise, hazardous substances, falling objects, and slips or trips.

All hazards to which a person, including members of the general public, could be exposed must be identified prior to work commencing. They must also be identified when there are changes to the worksite or the work being carried out.

Work environments that pose a fall from heights risk:

- Raised work surfaces, such as slopes;
- Slippery work surfaces;
- Uneven work surfaces;
- Cramped work areas;
- Cluttered work areas;
- Weather conditions (heavy rain, strong winds, extreme heat, etc.);
- Unprotected edges;
- Materials, tools, or equipment that need to be carried;
- Overloading of work platform, which may lead to collapse;
- Moving equipment or objects (loads from lifting operations).

There are various ways to identify hazards or situations:

- Investigate or review previous injuries and near miss incidents pertaining to your worksite or similar worksites.
- Review relevant codes of practice

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- Consult with stakeholders (safety & health personnel, supervisors, engineers, technical personnel and workers) to find out what risks they are regularly exposed to on their worksites.
- Do regular walk-through inspections of the workplace.
- Review previous records and statistics
- The hazard identification process can range from a checklist for specific equipment to an open-ended review of the worksite with a group of workers. A combination of the two is generally the most effective.

RISK ASSESSMENT

Risk assessment involves looking at the likelihood of a fall occurring and the extent of any potential harm or injury and should be conducted by all levels of a worksite.

A risk assessment will provide information on:

- Where injuries are most likely to occur on the worksite
- How many employees are likely to be affected
- The likelihood that such injuries would occur, taking into consideration the current control measures in place
- Potential severity of such injuries, not taking into consideration the current control measures in place

Once the risks have been assessed, reasonably practicable measures must be taken to reduce/maintain the risk level at an acceptable level. No work is to commence until all control measures are in place or if the risks are deemed to be at an unacceptable level.

Control measures should be implemented within the shortest time frame possible, with priority given to high risk items. An action plan should be prepared to implement control measures and should include a timeline of implementation and the responsibilities of persons implementing. This action plan should be monitored regularly until all control measures are implemented.

ACCESS TO AND EGRESS FROM WORK AREAS

ACCESS AND EGRESS RISK ASSESSMENT

When planning suitable means of access to and egress from a work area, you must assess what kinds of tools, equipment, and material workers will be carrying.

ACCESS AND EGRESS SAFETY CONSIDERATIONS

When planning safe and proper access to and egress from a work area, the following should be considered:

- Installation of fixed work platforms, walkways and stairways;
- Use of temporary work platforms such as scaffolds and crawl boards;
- Installation of fall arrest systems;
- Frequency and number of people who may need access to or egress from the work area. Supervision and regular inspection should also be considered;
- Provision of safe work surfaces;
- Method of getting equipment and materials to the work area;
- Exposure of access ways to the weather (rain can make walkways slippery; strong winds can cause loss of hand grip and move materials; etc.)
- Provision of adequate natural or artificial lighting to all access ways;

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- The clearance of obstructions so that persons are able to move easily to and from the workplace; and
- Location and space required for any equipment or materials used or being temporarily stored.

HOUSEKEEPING AND MATERIAL STORAGE

Good housekeeping practices involving proper storage of tools and materials will promote a cleaner and safer work area, reduce the risks of slips, trips, and falls, and improve productivity.

ROOF ACCESS

Safe access ways must be planned and implemented before the job commences and should be located where the work on the roof is to begin.

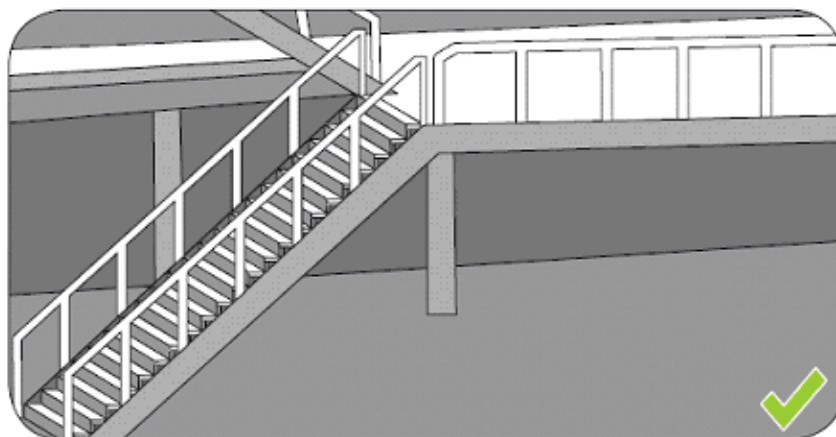
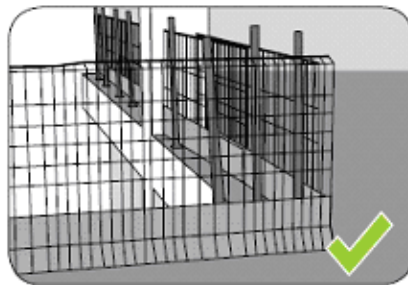
GUARDING OF OPENINGS

Openings on floors or platforms present significant hazards. If a worker falls through an opening, serious injury or death may occur. If a worker trips on small opening cuts, bruises, or serious injury may occur.

Barriers should be erected around any openings to prevent worker injury. They should be guarded with mesh and covered with material of adequate strength to prevent any entry by persons or objects. Be sure to secure the material, so as to prevent any dislodging.

When a cover is guarded and secured with material, adequate signage should be available. Signs such as “**Opening Beneath**” should be placed on or nearby the cover to warn workers.

Edge Protection



PERIMETER GUARD-RAILING

Edge protection is used to reduce the risks of a person falling from open sides and must be provided wherever practicable. It must be provided to the edge of scaffolds, walkways, ramps, stairs, etc. The protection provided must be able to withstand the weight and force of a worker falling against it.

Edge protection must adhere to the following requirements:

- Temporary or advance guards must be provided to reduce the risk of a scaffold erector falling from the uppermost, unsecured or exposed scaffolding level during the process of erecting or dismantling scaffold.
- The guard-rail system must be of sound construction and be able to withstand the weight of a person applied at any point.
- Top-rails must be at least 1m about the working surface.
- Mid-rails and toe-boards must be provided. However, the wire mesh infill panels incorporating a toe-board may be used instead of the mid-rails.
- A bottom rail above the toe-board on some roof slopes may be provided for more severe roof slopes. Both a mid-rail and infill mesh panel will assist in preventing persons and objects from sliding off the roof.
- If access points are required for equipment, they should be protected adequately with gates, safety chains or any other means to prevent a person falling. The access points must always be covered when not in use.
- Where guard-rail systems are intended to be used in conjunction with steel structures or tilt-up construction, designers and builders should plan for the guard-rails and fixings to be attached to the panels prior to the structures being raised from the edge protection that is being used. This is in order to reduce the risk of a person falling from one level to another.
- Scaffold may be used as fall protection around the edge of the roof by incorporating guard-railing as edge protection into the scaffold.

FALL PROTECTION SYSTEMS

INDIVIDUAL FALL PREVENTION SYSTEMS

Individual fall prevention systems are intended to safely stop a worker from falling an uncontrolled distance and to reduce the impact of the fall. They can be used where workers are required to carry out their work near an unprotected edge, where the work platform is unstable, or where it is not practicable to use a guardrail system.

When using fall prevention systems:

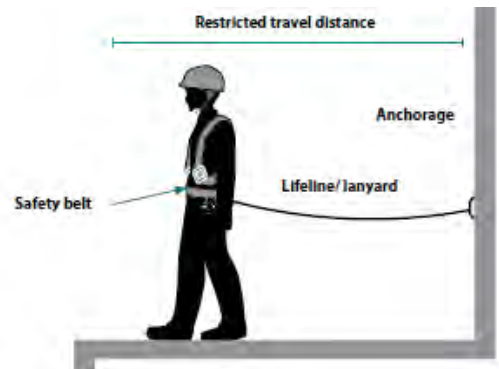
- The system should be rigged such that if a fall occurs, the distance fallen will be the shortest possible. This is to minimize the impact and swing of the arrest;
- All fall protection equipment should be visually checked prior to usage;
- Once a fall arrest system has been used to arrest a fall, it must be removed from service;
- Anchoring of lanyards to guard-rails of scaffolding should be avoided where possible, unless the guard-rail is designed to withstand the force generated by a person falling. If it is necessary to anchor to the guard-rails, the part to be anchored must be properly tightened.

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Travel Restraint Systems

A travel restraint system consists of a safety harness or belt, attached to one or more lanyards, each of which is attached to a static line of anchorage point.

It is designed to restrict the traveling range of a person wearing the safety harness or belt so that the person cannot get into a position where the person could fall off an edge of a surface or through a surface. It can be used in conjunction with other fall protection methods such as guard-rails.



Travel restraint systems are not designed to stop or sustain falls!

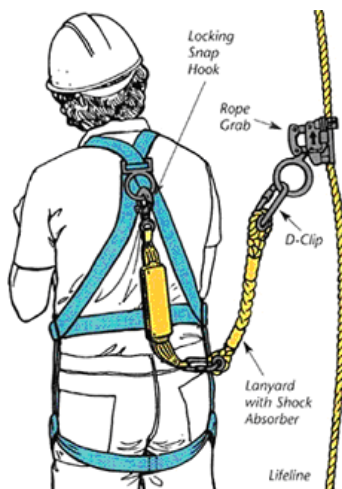
The following conditions should be complied before use of the system:

- Should prevent a person falling from the edge of a roof.
- Should not be used on fragile roofs.
- Persons setting up and/or using system should be able to demonstrate that they have a clear and thorough understanding of the system and how the work area can be assessed without the possibility of a fall occurring.
- Where access to a corner edge is required, workers should be attached to 2 or more sets of ropes and anchorage points.
- Anchorage points must be able to withstand the full weight of the person using it without failure. And should be designed to carry additional loads, should multiple people be using the system.

Travel restraint systems are only suitable for work such as:

- Roof inspections (not fragile roofs)
- Installation and removal of perimeter guard-rail systems
- Minor repair work, including replacement of some isolated parts of the roof
- Painting and cleaning

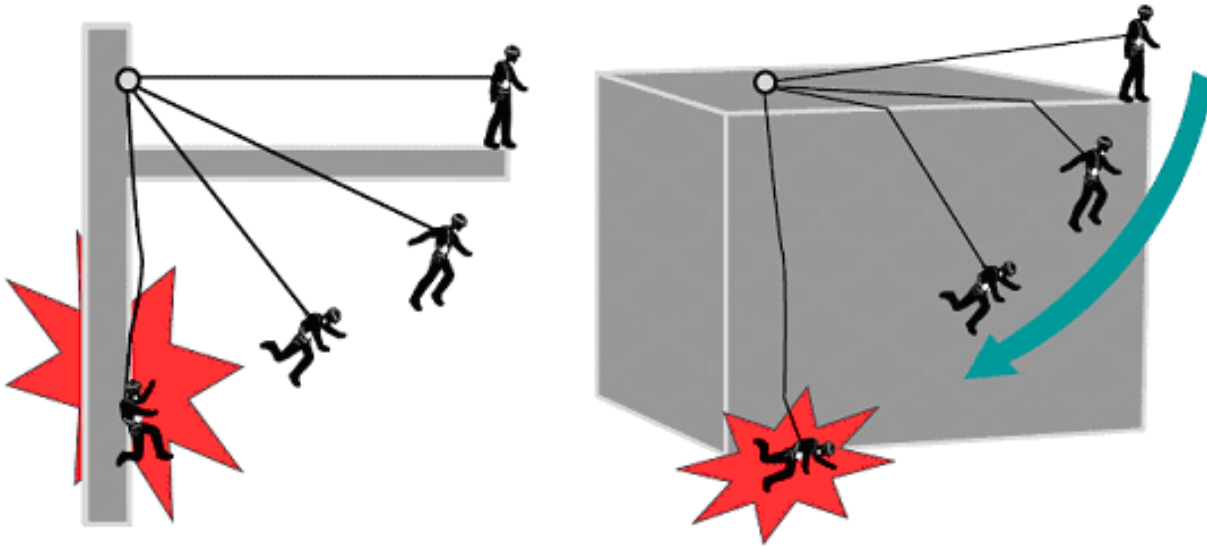
Fall Arrest Systems



- **lanyard**
 - Used to connect a fall arrest harness to an anchorage point or static line.
 - Should be as short as reasonably practicable
- **anchorage point or static line**
 - a static line is a horizontal or vertical line of a fall arrest system
 - connected to a fixed anchorage point
 - can be made of metal tube, metal rod, steel wire rope, synthetic webbing, or synthetic rope
- **harness**
- **personal energy absorber**
 - can be used in conjunction with a harness and lanyard to reduce the deceleration force imposed by a sudden arrested fall
 - reduces loading on the anchorage point
 - may be a separate item or manufactured into the lanyard

Hazards of Fall Arrest Systems

Swing back (left diagram) – In a fall, particularly from a perpendicular edge, the worker will swing back into the building structure and collide with any obstructions in the path of the swing. If there is a risk of a swing back occurring, the use of an individual fall arrest system should be reassessed.



Swing down (right diagram) – In a swing down, the arrest line extends diagonally from the anchor point, following the perimeter edge of the roof. If the worker falls, the fall arrest line will slide back along the perimeter until it is at a right angle with the edge of the roof. If the arrest line is too long, the worker will drop and hit the ground, or the arrest line may break when contacting the edge of the roof and result in the worker hitting the ground.

Calculation of Free Fall Distance

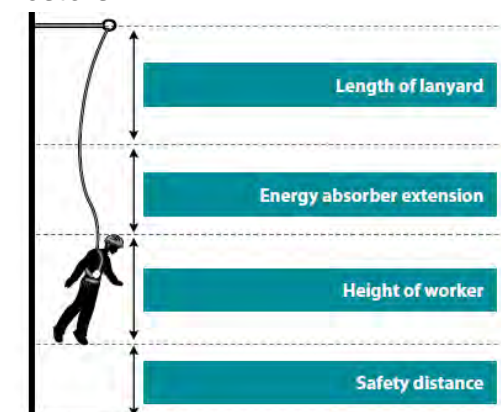
For a harness and lanyard, with energy absorber assembly:

Clearance Height = Length of Lanyard + Length of Energy Absorber Extension + Height of Worker + Safety Distance (usually taken as 3ft/1m)

For a Self-Retracting Lifeline (SRL)/Retractable Fall Arresters:

Clearance Height = Deceleration Distance + Height of Worker + Safety Distance (usually taken as 3ft/1m)

If the individual fall arrest system is attached to a horizontal life line (HLL), the deflection of the HLL needs to be included.



LADDERS AND PLATFORMS

LADDERS

If a ladder is leaning against a supporting structure it should be set up on a level area on firm footing and the base should be located a distance from the wall approximately a $\frac{1}{4}$ of the vertical height of the ladder. For example: If the ladder is 4ft tall, the bottom of the ladder should be 1 ft. away from the structure.

Where a ladder is used as a means of access or as a working place, adequate handholds should be provided to a height of at least 1m above the place of landing of the highest rung to be reached by the feet of and person working on the ladder.

Persons on ladders should maintain 3 points of contact at all times.

Fall prevention measures may be necessary with the use of ladders.

If the ladder is more than 3m in length, it should be securely fixed to a structure or a person should be stationed at the base of the ladder to prevent the ladder from slipping or falling.

SAFETY GUIDELINES FOR LADDERS

When using ladders:

- Use a 2-person team to transport ladders that are greater than 2m in height;
- Always inspect a ladder before use;
- Do not paint or coat ladders. This will cover any flaws or damage that could potentially weaken the ladder and cause harm to users;
- Do not use or handle metal ladders near power lines or live electrical equipment;
- Do not set up ladders in passageways, doorways, or any other place where a worker, vehicle, or crane-lifted load may hit it.
- Do not use step ladders on or near edges;
- Do not carry materials or tools by hand when ascending or descending ladders;
- Do not work on the ladder for extended periods of time – it is not a work platform;
- Do not use a ladder for heavy or strenuous work;
- Do not overreach when working on a ladder;
- Do not do work that will impose a side loading on the ladder, unless ladder is secured;
- Do not work directly over other workers' work areas;
- Only 1 worker is to be on a ladder at a time;
- Do not use ladders during strong winds or wet conditions; and
- Ensure you are wearing slip-resistant footwear when working on a ladder.

When securing a ladder:

- Ensure the ladder is on firm ground;
- For A-frame ladders, ensure both spreaders are straightened and firmly attached and locked in the open position before use;
- Tie the ladder to a suitable point making sure that both stiles are tied;
- If this is not possible, then securely wedge the ladder;
- If none of the above can be achieved, foot the ladder (footing is a last resort, and should be avoided if possible).

SECTION 18: Topic Specific

Do not use ladders with any of the following:

- Timber stiles that are warped, splintered, cracked, or bruised;
- Metal stiles which are corroded, twisted, bent, kinked, crushed, or with crack welds or damaged feet;
- Tie rods missing, broken, or loose;
- Ropes, braces or brackets which are missing, broken, or worn; and
- Timber members which are covered with paint or other treatment that could disguise faults.

Ladders can be checked for serviceability by:

- Taking each end of the ladder in turn and trying to push the stiles apart and then together. Any movement indicates insecure rungs or loose tie rods;
- Laying the ladder flat, raising none end and attempting to push one stile while pulling the other., if the stiles move relative to each other, the rungs are loose; and
- Tapping timber rungs with a mallet. A dull sound is an indication of a defective rung.

PORTABLE LADDERS

Portable ladders should be used only as a means of access to and egress from a work area. They should never be used as a work platform.

Step and trestle ladders should only be used when they are in the fully open position.

Standing on the top rung of a ladder is extremely dangerous and must never be done.

STEP PLATFORMS

Step platforms are safer alternatives to step ladders, especially when the job requires a worker to work extended periods of time working at heights or with restricted movement and vision. They are more stable and provide a larger work surface than a step ladder.

Elevated Work Platforms

A mobile elevated work platform is any telescoping, scissor or articulating equipment used to position personnel, materials or equipment at height. Mobile elevated work platforms consist of a platform surrounded by an edge protection system. The protected platform is used to position persons at work areas.

Mobile elevated work platforms are available in a wide variety of types and sizes. There are battery powered and internal combustion engine types. Some are designed for hard flat surfaces only, while others are designed for operation on rough terrain.

Mobile elevated work platforms

Should only be used on a solid level surface. The surface area should be checked to make sure that there are no penetrations or obstructions that can cause uncontrolled movement or the platform to overturn;

- Should be clearly marked with a safe working load limit or maximum rate capacity notice; and
- Should not be used in high wind conditions or where there is risk of lightning.

SECTION 18: Topic Specific

The following requirements are needed to provide for the safe use of mobile elevated work platforms:

- Operators of boom lifts should be properly trained and competent for the job.
- A risk assessment of the work and the area must be done by the operator before commencing any work.
- A pre-operation inspection must be performed by the operator before usage. The inspection must include functional tests to determine if the mobile elevated work platform is in proper working condition
- There must be no unauthorized alteration or modification of the mobile elevated work platform or any of its safety devices or functions.
- It is recommended that the load pressure at the contact points of the mobile elevated work platform with the ground be marked near the contact points. This is to help in preventing accidental positioning of the work platform on surfaces which may not be able to sustain the weight of the work platform.
- The operator must be able to recognize conditions such as hazardous terrain, such as slopes or trenches.
- Operators working in boom lifts should wear a suitably anchored safety harness.

Anchoring to nearby poles or equipment outside the work platform is prohibited.

The use of planks, ladders or any other devices on the work platforms for the purpose of achieving additional height or reach is strictly prohibited.

Always refer to the operator's or service manual for additional fall protection requirements for specific lift equipment.

HAZARDS OF WORKING AT ROOFTOP

One of the main hazards of working at rooftop is the condition of the roof itself. If a person is required to work on or from a roof that is fragile and can break easily, it is important to ensure that:

- Brittle or fragile areas are identified before work commences, as part of your risk assessment;
- Workers are informed of all brittle or fragile areas;
- Safe access is provided to enable workers to step directly onto a safe platform or area;
- Work is carried out from a working platform that is located and constructed to allow work to be performed safely;
- An adequate fall arrest system is installed and used;
- There is another person present at all times in case of emergency;
- Training and instruction has been provided to workers on precautions to be taken;
- Training in rescue techniques has been provided and rescue equipment is readily available for use at the workplace;
- Warning signs are fixed securely in a position where they will be clearly visible to persons assessing the work area.

ELEVATING WORKERS IN LOADER BUCKET

The following are **mandatory** procedures when elevating a worker in the bucket of a front end loader, for the purpose of gaining access to a work site:

To secure footing, bucket should be in a partial rollback position.

- To prevent workers from falling out of bucket, attach safety rail to bucket. Secure the worker to the anchor points by means of a lanyard and safety harness worn by the worker.

Under no circumstances shall a loader be moved while a worker is in the bucket.

- The loader operator shall remain in the operator's seat at all times while a worker is being raised to a work site.
- The operator shall not raise or lower the bucket unless given a proper signal by either the worker in the bucket or a third person at ground level.
- The loader operator will be responsible to ensure that any worker being elevated in a loader bucket is secured with the approved safety harness, belt or lanyard, and that the floor area on which the worker is to stand, is prepared to prevent slipping.
- Safety harness and lanyard will be supplied in a special tool box mounted on the loader and the operator shall be responsible for the same.

FORMS - See Appendix B

- Fall Protection Plan Template
- Harness Inspection

18.29 ABOVE GROUND STORAGE TANKS

The following applies to the use of above ground bulk storage fuel tanks owned by Pidherney's Inc.

DEFINITIONS

For the purpose of this section:

Above-ground storage tank means a storage tank with all the storage tank volume above grade.

Combustible Liquid or Product means any liquid having a closed cup flash point at or above 37.8 Celsius and below 93.3 Celsius.

Construction means erection or installation

Corrosion means the deterioration of a metal resulting from a reaction with its environment

Discharge means releasing, spilling, leaking, pumping, pouring, emitting, emptying, or dumping of petroleum or allied petroleum products into the environment, whether intentional or unintentional.

Flammable liquid or product means any liquid having a closed cup flash point below 37.8 °C and a vapor pressure not exceeding 275.8 kPa (absolute) at 37.8 °C.

Handling means the storing, transmitting, transporting, or distributing of petroleum or allied petroleum products and includes putting petroleum products into a container or into the fuel tank of a motor vehicle, vessel, or aircraft.

Interstitial space means the space between the primary storage tank or piping wall and the impermeable barrier within a secondary containment system.

Operator means the person who is responsible for the day-to-day operation of an installation where an aboveground or underground storage tank is located or, when referring to a vehicle, the driver in charge of the vehicle

Out-of-service means that a storage tank system or portion thereof is no longer serving its intended use.

Overfill protection device means a mechanical device, electrical device, or fill procedure system that is intended to prevent a storage tank from being overfilled

Secondary containment means an impermeable barrier that prevents leaks from the primary storage tank system from reaching outside the containment area

Spill means any loss of liquid *petroleum* or *allied petroleum product* from a *storage tank system* that is not attributable to a *leak* in the *storage tank system*

Spill Response Plan means planned procedures for reporting, containing, removing, and cleaning up a spill or leak.

Storage tank means a closed container for the storage of *petroleum* or *allied petroleum products* with a capacity of more than 230 L that is designed to be installed in a fixed location.

FUEL DELIVERIES

All deliveries will be known to Pidherney's yard coordinator prior to delivery.

The person responsible for transferring petroleum to the storage tank shall take all reasonable steps to prevent spills.

When a tank is being loaded the person responsible must remain in constant view of the fill pipe and in constantly in attendance at delivery control valve.

Emergency procedures shall be posted in printed form for convenient reference.

As per the Canada's Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Product;

8.5.7(1) No person shall transfer petroleum or allied petroleum product to an aboveground storage tank with a capacity of 5000 L or more unless a liquid and vapor-tight fill connection is made to the storage tank.

INVENTORY

Pidherney's conducts inventory control and reconciliation in compliance with regulations for aboveground storage tanks as follows:

A gauge stick is to be used to measure the depth of liquid in a storage tank. It must be marked to the ½ cm (with the zero at the bottom end of the stick). The stick must be inspected prior to dipping to ensure that the end is not broken, worn or shortened, and that the stick is not warped. The stick is to be made of non-sparking material such as wood or fiberglass. Wooden sticks must be varnished to keep the fuel from soaking into the stick and causing false readings.

The measurement is to be taken from the drop tube, which extends to within one foot from the tank bottom. This ensures that the stick is straight up and down and allows for more precise measurement.

The product level must be measured and documented. All product must be reconciled to account for fuel usage. Measurements must also be taken upon fuel deliveries.

The tank cannot be measured during any time product is being added to or removed.

DISPENSING AND TRANSFER

All Pidherney's personnel dispensing fuel from any aboveground tank must be familiar with:

- Emergency Response Procedures for the worksite.
- Spill Response and Notification Procedures for the worksite.
- Safe Work Practices
- Trucks and Equipment must be shut off prior to beginning the fueling process
- No Worker is to smoke while fueling equipment

SECTION 18: Topic Specific

- Operators must ensure that no ignition source is present within 7.5m of the tank or any of its components during fueling.
- Minimum PPE requirements while dispensing fuel are eye protection and gloves
- Cell phones are to be left in vehicles and equipment during fueling
- Operators are to be in attendance of the nozzle at all times while fueling

Inspections

Visual inspection of the tank, its components and the fueling area must be conducted weekly to identify any deficiencies. Inspections must be documented and signed off by the Inspector. All deficiencies must be noted on the inspection and corrected as soon as reasonably practicable.

SPILL RESPONSE, CONTAINMENT AND NOTIFICATION

In the event of a Leak detected or environmental spill:

1. Stop the spill at the source if possible
 - a. The leak or spill should be stopped by properly qualified and equipped personnel, if this can be done safely. Turn off all nozzles and valves. Use Emergency shut off located on the tank.
2. Cover drains and escape routes if possible
3. Ensure no sources of ignition are present.
4. Contain the spill using the best method
5. Build a dyke
6. Replace or repair leak proof container
7. Channel the spill to a contained area or container
8. Place an empty container under the leak to catch the fluid (pan, pail, shovel, etc.)
9. Use absorbent materials to soak up the spill. Spreading sorbent materials such as kitty litter (Flor-Dri), sand, straw, sawdust, woodchips, and sorbent pads can stop the flow and soak up any liquids. However, sorbents do not make the substance non-flammable.
10. Collect the contaminated sorbent material.
 - a. Use brooms/shovels to sweep and gather up any sorbent materials that have been used to soak up the liquids and place them into buckets, garbage cans, barrels or on material that will act as a barrier against any further absorption into the ground.
11. Secure the Waste
 - a. All contaminated material must be cleaned up and disposed of appropriately. A contained waste bin shall be made available for proper disposal and will be emptied regularly.

Notification

All leaks or spills must be reported immediately to **Pidherney's Head Office: (403) 845-3072**

ALBERTA ENVIRONMENT:

A spill must be reported to Alberta Environment if the product:

1. Is causing, have caused or may cause an adverse effect
 - Is a flammable substance and exceeds 200 L
 - Are released into a groundwater or surface water body

Alberta Environment: 1-800-222-6514

A written report must be submitted to the appropriate Alberta Environment Director within seven days after the immediate report. Written reports must include:

- The date and time of the release
- The location of the release
- The duration of the release and the release rate
- The concentration, total weight, quantity or amount released
- A detailed description of the circumstances leading to the release
- The steps/procedures taken to minimize, control or stop the release
- The steps/procedures that will be taken to prevent similar releases in the future
- Any other information required by the Director

RECORDS

All records, including delivery slips, measurement logs, inspections, spills, maintenance and reconciliation must be kept and be available to an inspector in reasonable time upon request. Records must be retained for at least two years.

SECTION 19: RECORDS & STATISTICS

Pidherney's Safety System is a dynamic and constantly evolving process. Well maintained records provide the information necessary to assess the program, make necessary modifications, and plan for future activities. Analysis of these records provides an opportunity to determine trends, measure success and improve overall safety performance.

19.1 TRAINING RECORDS

Training records for employees must be kept current and updated on a regular basis.

19.2 STATISTICS

Data collected relating to safety provides management with an overview of our program's activities and results. Examining summaries provides information to determine trends and setting priorities for future safety program measures. These summaries will be circulated to all management levels within Pidherney's and are to be reviewed with employees at regular safety meetings

The monthly Pidherney's statistical report will consist of a breakdown of

- | | |
|-------------------------------------|--------------------------------------|
| • Average number of employees | • Number of Employee work hours |
| • Lost time incidents | • Modified/restricted work incidents |
| • Medical aid incidents | • First aid incidents |
| • Near misses | • Number of days away from work |
| • Number of recordable incidents | • Total recordable frequency |
| • Lost time frequency | • Lost time severity |
| • Total number of vehicle incidents | • Total kilometers driven |
| • Vehicle incident rate | • Equipment/property damage incident |
| • Facility contact | |

A separately prepared monthly report will be circulated, consisting of a breakdown of:

- Pidherney's safety documentation requirements.
- Other safety related trending and measurements (Audit)

19.3 PERMANENT FACILITY SAFETY FILES

Each permanent facility will maintain a filing system for their divisions that includes;

- | | |
|--|-----------------------------|
| • Pre-job safety meetings | • Emergency response plans |
| • Pre-job hazard assessments | • FLHA / JSA |
| • Permits – Ground Disturbance, Confined Space, etc. | • ECO plan |
| • Employee orientations | • Employee sign-up packages |
| • Approved driver records and abstracts | • Near miss reports |
| • Safety opportunity cards | • Safety/tailgate meetings |
| • Safe work/safe operating procedures | • On-site contractor review |

SECTION 19: Records & Statistics

- Worksite inspections
- Worker competency reports
- ACSA Audits
- Incident/investigation reports
- Site audits
- Any other required safety documentation relating to the job.

All safety documentation is filed in the appropriate job number located in the designated safety personnel's office, employee files are filed in the Human Resource office.

19.4 COMPANY SAFETY FILES

The designated safety/environment personnel will maintain a filing system that includes;

- Incident investigation reports
- Statistics
- Safety alerts
- Modified work offers
- Modified work and lost time reports
- All WCB documentation

Note: The following documents will be filed in the employee's HR file;

- Incident investigation reports
- All WCB documentation including modified work offers, modified work and lost time reports will be filed in the employee's HR file after they have been closed.
- Drug Test Results (LOCKED)

19.5 FILE RETENTION

All safety related files such as Tailgate/Toolbox meetings, safety meetings, hazard I.D's, near misses, inspections and incident reports will be retained for 3 years unless part of incident investigation (recordable incident) these will be retained for at least 7 years. First aid incidents will also be retained for at least 3 years.

19.6 INCIDENT CLASSIFICATION

The final classification of all incidents is the responsibility of the Company Safety Department

Note: Record each incident only once, at the highest level of severity, in the quarter in which it first occurred.

FIRST AID INJURY

A first-Aid injury is any one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters and so forth that do not require advanced medical care, even though provided by a physician or registered medical professionals.

Examples of first aids;

- Visit to a physician for observation only.
- Using a non-prescription medication at non-prescription strength.
- Cleaning, flushing or soaking wounds on the surface of the skin.
- Using wound coverings such as bandages, Band-AidsTM, gauze pads, etc.

- Using any non-rigid means of support, such as elastic bandages, wraps or non-rigid back belts, etc.
- Relieving pressure from a fingernail or toenail or draining fluid from a blister.
- Removing foreign bodies from the surface of the eye using only irrigation or a cotton swab.
- Removing splinters or foreign material from area other than the eye by irrigation, tweezers, cotton swabs or other simple means.
- Using finger guards.
- Drinking fluids for relief of heat stress.
- Any other first aid treatment that does not require medical aid.

MEDICAL AID INJURY

A medical aid injury is any injury that involved neither lost workdays nor modified workdays, but which includes treatment by physician and / or registered health professional personnel above the skills of a person trained in first aid. Medical aid treatment does not include first aid treatment. The following are classified as medical aid injury;

- Providing prescription medication.
- Suturing/wound closing (other than bandages)
- Removal of foreign bodies from a wound (complicated)
- Removal of foreign bodies from the eye (except irrigation and cotton swab).
- Treatment of infection.
- Treatment of a bruise via blood drainage.
- Treatment of 2nd/3rd degree burn.
- Positive x-ray diagnosis (fracture/break found).
- Supplying a rigid means of support.
- Amputation/permanent loss of usage.
- Vaccine (except tetanus).
- Cutting away dead skin.

MODIFIED WORK INJURY

A modified work injury is an injury (excluding the day of the injury) that results in a person;

- Assigned to another job on a temporary basis.
- Working at a permanent job less than full time.
- Working at their permanent job, but not able to perform all the normal job duties connected with it. This excludes limitations for incidental/peripheral job duties.


LOST TIME INJURY

A lost time injury is an injury that results in complete days away from work, after the day the injury occurred. An exception is time for medical assessment, including travel time, provided there is no time delay in seeking treatment.

APPENDIX B: FORMS

Section 4 – Hazard Assessment and Control

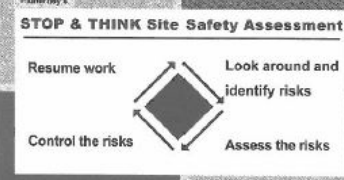
Field Level Hazard Assessment



Pidherney's
DRIVEN TO EXCEL FROM START TO FINISH

Field Level Hazard Assessment *"Safe From Start to Finish"*

Check off the hazards that apply to this job. List the item # in the 2nd column (other side). Identify the plans to eliminate or control them in the 3rd column (other side).

<p>Environmental Hazards</p> <ol style="list-style-type: none"> 1. Work area clean <input type="checkbox"/> 2. Material storage identified <input type="checkbox"/> 3. Dust / Mist / Fume <input type="checkbox"/> 4. Noise in area <input type="checkbox"/> 5. Extreme temperatures <input type="checkbox"/> 6. Spill potential <input type="checkbox"/> 7. Waste containers needed <input type="checkbox"/> 8. Waste properly disposed <input type="checkbox"/> 9. Waste plan identified <input type="checkbox"/> 10. Other workers in area <input type="checkbox"/> 11. Weather conditions <input type="checkbox"/> 12. MSDS reviewed <input type="checkbox"/> 	<p>Access / Egress Hazards</p> <ol style="list-style-type: none"> 27. 3 point contact <input type="checkbox"/> 28. Railing in place <input type="checkbox"/> 29. Ladders (tied off) <input type="checkbox"/> 30. Slips / Trips <input type="checkbox"/> 31. Evacuation (alarms, routes, ph. #) <input type="checkbox"/> <p>Confined Space</p> <ol style="list-style-type: none"> 32. Confined space entry permit required <input type="checkbox"/> 33. Restricted Space <input type="checkbox"/> 34. Hazardous Atmosphere <input type="checkbox"/> 35. Product / contents in space <input type="checkbox"/> 36. Rescue Plan <input type="checkbox"/> 	<p>Rigging & Hoisting Hazards</p> <ol style="list-style-type: none"> 42. Lift study required <input type="checkbox"/> 43. Proper tools used <input type="checkbox"/> 44. Tools inspected <input type="checkbox"/> 45. Equipment inspected <input type="checkbox"/> 46. Slings inspected <input type="checkbox"/> 47. Others working overhead / below <input type="checkbox"/> 48. Critical lift permit <input type="checkbox"/> 49. Hoisting (tools, equipment) <input type="checkbox"/>
<p>Ergonomic Hazards</p> <ol style="list-style-type: none"> 13. Awkward Body Position <input type="checkbox"/> 14. Over extension <input type="checkbox"/> 15. Prolonged twisting bending motion <input type="checkbox"/> 16. Working in a tight area <input type="checkbox"/> 17. Lift too heavy / Awkward to lift <input type="checkbox"/> 18. Parts of body in line of fire <input type="checkbox"/> 19. Repetitive motion <input type="checkbox"/> 20. Hands not in line of fire <input type="checkbox"/> 21. Working above your head <input type="checkbox"/> 	<div style="border: 2px solid black; padding: 10px; margin: 10px auto; width: 150px;"> <p>STOP & THINK Site Safety Assessment</p>  </div>	<p>Electrical Hazards</p> <ol style="list-style-type: none"> 50. GFI test <input type="checkbox"/> 51. Lighting levels too low <input type="checkbox"/> 52. Working on / near energized equipment <input type="checkbox"/> 53. Electrical cords condition <input type="checkbox"/> 54. Electrical tools condition <input type="checkbox"/> 55. Fire extinguisher <input type="checkbox"/> 56. Hot work or electrical permit required <input type="checkbox"/>
<p>Ground Disturbance</p> <ol style="list-style-type: none"> 22. Permit / Checklist <input type="checkbox"/> 23. 1st Call <input type="checkbox"/> 24. Soil stability / condition / type <input type="checkbox"/> 25. Trench wall cutbacks <input type="checkbox"/> 26. Spoil pile <input type="checkbox"/> 	<p>Overhead Hazards</p> <ol style="list-style-type: none"> 37. Barricades & signs in place <input type="checkbox"/> 38. Hole coverings identified <input type="checkbox"/> 39. Falling items <input type="checkbox"/> 40. Foreign bodies in eyes <input type="checkbox"/> 41. Hoisting or moving loads overhead <input type="checkbox"/> 	<p>Personal Limitations / Hazards</p> <ol style="list-style-type: none"> 57. Procedure not available for task <input type="checkbox"/> 58. Confusing instructions <input type="checkbox"/> 59. No training for task or tools to be used <input type="checkbox"/> 60. First time performing the task <input type="checkbox"/> 61. Micro Break (stretching / flexing) <input type="checkbox"/> 62. Report all injuries to your supervisor <input type="checkbox"/> 63. Fit & ready for work <input type="checkbox"/>

It is important that all hazards have plans to eliminate them and the plans are put in place. Ensure that all associated permits are closed off at the end of the job.

Remember: "Stop & Think" & See It Again For The First Time".



Hydrovac Field Level Risk Assessment



JOB Number: _____

HYDROVAC FIELD LEVEL RISK ASSESSMENT

Client / Project:				Date:							
Location:				Time:							
Unit #:		Field Ticket #:		Onsite Foreman:							
SCOPE OF WORK											
GENERAL TOPICS				ERGONOMIC HAZARDS				ATTENDEES			
General Housekeeping				Yes	No	N/A	Excessive Force Required	Yes	No	N/A	Name (Print)
Overhead Hazards				Yes	No	N/A	Prolonged Twisting or Bending	Yes	No	N/A	Name (Print)
Conflicting Work in Area				Yes	No	N/A	Repetitive Motion	Yes	No	N/A	Name (Print)
Permit Reviewed				Yes	No	N/A	Awkward Position	Yes	No	N/A	Name (Print)
Signage in Place				Yes	No	N/A	Heat Exhaustion	Yes	No	N/A	Name (Print)
Area Flagged				Yes	No	N/A	Exposure to Cold	Yes	No	N/A	Name (Print)
Standard PPE				Yes	No	N/A	Other _____			Name (Print)	
Specialized PPE				Yes	No	N/A	SOIL CONDITIONS AND DUMPSITE				Name (Print)
Fall Restraint in Place				Yes	No	N/A	Soil Conditions _____				Name (Print)
Equal Potential Protection				Yes	No	N/A	Dumpsite Authorization		Yes	No	N/A
Wheel Chocks in Place				Yes	No	N/A	Dumpsite Authorized By (Print)		EMERGENCY MUSTER LOCATION		
Shoring Protection Required				Yes	No	N/A	Dumpsite Authorized By (Signature)				
Walk Around				Yes	No	N/A					
TASK		POTENTIAL HAZARDS				HAZARD CONTROL / MEASURES TAKEN					

Operator: _____ Signature: _____

WHITE: Office Copy

YELLOW: Customer Copy

PINK: Stays in Book





JOB Number:

To calculate Pre-Risk, multiply "Severity" x "Probability" = Risk

Example: "Insignificant" is 1 x "Almost Certain" is 5 = Risk of 5. Combine Risk Letters with the Risk Numbering i.e. M5

To calculate Post-Risk, multiply "Severity" x "Probability" = Risk

Once Mitigations are in place, the Post Risk will be at a lower Risk #;

You must look back at the table and determine the probability and the severity dependent now on the mitigation

Now that the mitigations are in place determine what the probability of the incident happening.

Example: Lifting was H12 due the Severity "Moderate" and Probability "Likely". Falling in the High zone because of the # 12 ranking.

The Risk drops now because of the controls; Personal experience of lifting injury's place the risk now at **Severity Insignificant and Probability Likely = M4** because now we are following controls that greatly help lower the risk of performing the task of lifting.

All risks must fall into the yellow or green zones before they are to be attempted.

C = Catastrophic, H = High, M = Moderate, L = Low

		Severity				
		Insignificant (1) No injuries / minimal financial loss	Minor (2) First aid / medium financial loss	Moderate (3) Medical treatment / high financial loss	Major (4) Hospitalize / large financial loss	Catastrophic (5) Death / massive financial loss
Probability	Almost Certain (5) Often occurs / once a week	Moderate (5)	High (10)	High (15)	Catastrophic (20)	Catastrophic (25)
	Likely (4) Could easily happen / once a month	Moderate (4)	Moderate (8)	High (12)	Catastrophic (16)	Catastrophic (20)
	Possible (3) Could happen or known it to happen / once a year	Low (3)	Moderate (6)	Moderate (9)	High (12)	High (15)
	Unlikely (2) Hasn't happened yet but could / once every 10 years	Low (2)	Moderate (4)	Moderate (6)	Moderate (8)	High (10)
	Rare (1) Conceivable in extreme circumstances / once in 100 years	Low (1)	Low (2)	Low (3)	Moderate (4)	Moderate (5)



Job Safety Analysis Form

Pidherney's <small>FROM START TO FINISH</small>		<i>Job Safety Analysis Form</i>	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">JOB Number: _____</div>			
WORK ACTIVITY (JOB): _____		DATE: _____	
LOCATION OF JOBSITE: _____			
SUPERVISOR APPROVAL: _____			
SAFETY EQUIPMENT REQUIRED:	<input type="checkbox"/> Hard Hats	<input type="checkbox"/> Leather Gloves	<input type="checkbox"/> Goggles
	<input type="checkbox"/> Fire Retardant Coveralls	<input type="checkbox"/> Cotton Gloves	<input type="checkbox"/> Steel Toe Boots
	<input type="checkbox"/> Regular Coveralls	<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Fire Extinguisher
	<input type="checkbox"/> Reflective stripes	<input type="checkbox"/> Face Shields	<input type="checkbox"/> SCBA
	<input type="checkbox"/> Barricades	<input type="checkbox"/> Hot Work Permit	
		<input type="checkbox"/> Other _____	<input type="checkbox"/> Other _____
SEQUENCE OF BASIC STEPS	POTENTIAL ACCIDENTS OR HAZARDS	HOW TO ELIMINATE OR REDUCE POTENTIAL HAZARDS	PERSON(S) RESPONSIBLE FOR CONTROLS
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
CRITICAL QUESTIONS : <input type="checkbox"/> Everyone Ready/Capable To Work? <input type="checkbox"/> Potential Spill/Gas Release Addressed? <input type="checkbox"/> Worst Case Discussed?			
WORK TEAM (PRINT NAME & SIGN)			<div style="border: 1px solid black; padding: 5px; display: inline-block;">PAGE OF</div>
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	
<small>Revised February 2007</small>			<div style="border: 1px solid black; padding: 5px; display: inline-block;">Office use only - Received on: _____</div>




Pidherney's
DRIVEN TO EXCEL FROM START TO FINISH

2018

APPENDIX B: Forms

Oilfield Safety Meeting and Hazard Assessment (Carbon Copy Booklets)



Pidherney's
SAFE FROM START TO FINISH

M. Pidherney Trucking Ltd.
Box 940 Station Main
Rocky Mountain House, AB T4T 1A7
Phone: (403) 945-3072 Fax: (403) 945-5370

Safety Meeting and Hazard Assessment
OILFIELD CONSTRUCTION & MAINTENANCE, RECLAMATION, REMEDIATION AND WASTE HAULING

The site supervisor must complete a safety meeting and hazard assessment at the beginning of each job or at anytime in which the job scopes changes. This form represents a combined safety meeting and hazard assessment. This form shall be reviewed with the workers and available at the worksite.

Date:		Time:	
Supervisor:		Phone:	
Alternate supervisor:		Phone:	
Client/Owner (company):		Contact:	Phone:
Location #1:	Location #2:	Location #3:	
Job Description: <input type="checkbox"/> New construction <input type="checkbox"/> Clean-up/restoration <input type="checkbox"/> Reclamation <input type="checkbox"/> Truck Haul <input type="checkbox"/> Other:			
Driving directions:			
Emergency Numbers: Ambulance:		Fire:	Police:
		Other:	

HAZARD ASSESSMENT (to be completed prior to work beginning on site)

HAZARD CHECKLIST	APPLICABLE	MITIGATION
1. Approval to work	<input type="checkbox"/>	Safe work permit required <input type="checkbox"/>
2. Short service workers	<input type="checkbox"/>	Special training needed <input type="checkbox"/> Everyone on site aware <input type="checkbox"/>
3. Personal injury	<input type="checkbox"/>	Personnel fit for task <input type="checkbox"/> Eyes on task <input type="checkbox"/> Mind on task <input type="checkbox"/> Not in line of fire <input type="checkbox"/> Proper balance, grip, traction <input type="checkbox"/> 3rd point contact <input type="checkbox"/> Appropriate PPE <input type="checkbox"/> Appropriate footwear <input type="checkbox"/> Stretching <input type="checkbox"/>
4. Underground facilities	<input type="checkbox"/>	Ground disturbance checklist <input type="checkbox"/> Everyone aware <input type="checkbox"/> 3" Party crossing agreements on hand <input type="checkbox"/>
5. Overhead obstructions/power	<input type="checkbox"/>	Signs up <input type="checkbox"/> Barricades <input type="checkbox"/> Appropriate clearance (7 meters) <input type="checkbox"/>
6. Excavations/ditches/pumps	<input type="checkbox"/>	Adequate access, egress <input type="checkbox"/> Stay back from edges <input type="checkbox"/> Sloping <input type="checkbox"/> Barricades <input type="checkbox"/> Fencing <input type="checkbox"/> Signs <input type="checkbox"/>
7. Live well site/facility/H2S	<input type="checkbox"/>	Permits <input type="checkbox"/> Training <input type="checkbox"/> Monitors <input type="checkbox"/> SCBA required <input type="checkbox"/> Safe distance <input type="checkbox"/> Barricades <input type="checkbox"/>
8. Working alone	<input type="checkbox"/>	Means of communication <input type="checkbox"/> Call in/call out <input type="checkbox"/> Timing <input type="checkbox"/> Satellite phone <input type="checkbox"/>
9. Special tools (chain saws, grinders...)	<input type="checkbox"/>	Training <input type="checkbox"/> Appropriate PPE <input type="checkbox"/> Body position <input type="checkbox"/> Safe distance <input type="checkbox"/>
10. Driving conditions	<input type="checkbox"/>	Weather <input type="checkbox"/> Speed <input type="checkbox"/> Seatbelts <input type="checkbox"/> Cell phone <input type="checkbox"/> Vehicle pre-trip inspection <input type="checkbox"/> Obey traffic laws <input type="checkbox"/>
11. Wildlife on roads	<input type="checkbox"/>	Personnel for task <input type="checkbox"/> Reduce speed <input type="checkbox"/> Keep eyes moving <input type="checkbox"/> Clean lights <input type="checkbox"/> Clean windows <input type="checkbox"/>
12. Worker fatigue	<input type="checkbox"/>	Micro breaks <input type="checkbox"/> Hours of service <input type="checkbox"/>
13. Equipment loading/unloading	<input type="checkbox"/>	Proper procedure <input type="checkbox"/> Level ground <input type="checkbox"/> Spotters <input type="checkbox"/> Reflective vests <input type="checkbox"/> 5 meters from well head <input type="checkbox"/> Hand signals <input type="checkbox"/>
14. Heavy equipment activities	<input type="checkbox"/>	Communication <input type="checkbox"/> Reflective vests <input type="checkbox"/> Hand signals <input type="checkbox"/> Eye contact <input type="checkbox"/> Lower buckets/blades before exiting <input type="checkbox"/> 3 point mount and dismount <input type="checkbox"/>
15. Pulling, towing, winching	<input type="checkbox"/>	Appropriate equipment <input type="checkbox"/> Keep distance <input type="checkbox"/> Hand signals <input type="checkbox"/> Location of slings <input type="checkbox"/>
16. Pumping water off site	<input type="checkbox"/>	Landowner approval <input type="checkbox"/> Water tested <input type="checkbox"/>
17. Spills	<input type="checkbox"/>	Report immediately <input type="checkbox"/> Location of spill <input type="checkbox"/> Park on level ground <input type="checkbox"/> Do not rely on auto shut off <input type="checkbox"/>
18. Garbage	<input type="checkbox"/>	Pick it up and take it out <input type="checkbox"/> Do not throw in truck boxes <input type="checkbox"/>
19. Parking	<input type="checkbox"/>	Designated parking area <input type="checkbox"/> Back in <input type="checkbox"/> Park side by side <input type="checkbox"/>
20. Confined space	<input type="checkbox"/>	Class A B C (choose one) Gas testing required <input type="checkbox"/>
21. Truck haul	<input type="checkbox"/>	Dump on level ground <input type="checkbox"/> Stay back from truck box while loading <input type="checkbox"/> Bolt tailgates <input type="checkbox"/> Road use agreement <input type="checkbox"/> Ensure operation of tarps <input type="checkbox"/> Signage <input type="checkbox"/> Manifests <input type="checkbox"/> Dust control <input type="checkbox"/> Plastic/crow needed <input type="checkbox"/> Visibility <input type="checkbox"/>
22. Smoking	<input type="checkbox"/>	Designated area <input type="checkbox"/>
23. ATV/snowmobile	<input type="checkbox"/>	Training <input type="checkbox"/> Helmets <input type="checkbox"/> Speed <input type="checkbox"/> Loading/unloading <input type="checkbox"/> Securing loads <input type="checkbox"/> Terrain <input type="checkbox"/>
24. Burning brush	<input type="checkbox"/>	Appropriate equipment <input type="checkbox"/> Permits <input type="checkbox"/> Fire extinguishers <input type="checkbox"/> Safety Controls <input type="checkbox"/> Distance from tree line <input type="checkbox"/> Adequate berm <input type="checkbox"/> Water available <input type="checkbox"/>
25. Other:	<input type="checkbox"/>	
26. Other:	<input type="checkbox"/>	

ON SITE REVIEW (to be completed prior to work beginning on site)

CHECK APPLICABLE	CHECK APPLICABLE	LOCATION
1. PPE	2. SAFETY EQUIPMENT	
a) Hard hats <input type="checkbox"/>	a) Fire extinguisher <input type="checkbox"/>	
b) Steel toed boots <input type="checkbox"/>	b) First aid kit <input type="checkbox"/>	
c) Safety glasses <input type="checkbox"/>	c) Spill kit <input type="checkbox"/>	
d) High visibility stripes/vest <input type="checkbox"/>	d) Other <input type="checkbox"/>	
e) Coveralls- Fire retardant or Regular <input type="checkbox"/>	3. EMERGENCY RESPONSE	
f) Hearing protection <input type="checkbox"/>	a) Muster point identified <input type="checkbox"/>	
g) Personal gas detector <input type="checkbox"/>	b) Emergency numbers listed <input type="checkbox"/>	
h) Gloves <input type="checkbox"/>	c) Reviewed E R plan <input type="checkbox"/>	
i) Other <input type="checkbox"/>	d) Other <input type="checkbox"/>	

OTHER TOPICS DISCUSSED, INJURIES/INCIDENTS REVIEWED

ATTENDANCE (read and sign)

I am fully aware of the scope of the job, associated hazards and the legal responsibility of every worker to protect himself and all other worker at the worksite. I will comply with safety regulations and legislation regarding safety policies and procedures.

Name (print)	Signature	FIRST AID CPR	H2S	TDG	WHMIS	GROUND DIST.	IRP 15	OTHER
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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			



APPENDIX B: Forms

Civil Safety Meeting/Hazard Assessment (Carbon Copy Booklet)



Pidherney's
SAFE FROM START TO FINISH

Pidherney's Trucking
Box 940 5th Main
Rocky Mountain House, AB T4T 1A7
Phone: (403)845-5072 Fax: (403)845-8573

Safety Meeting and Hazard Assessment

CIVIL CONSTRUCTION, UTILITIES INSTALLATION, EARTHWORKS, HIGHWAY BASE CONSTRUCTION

The site supervisor must complete a safety meeting and hazard assessment at the beginning of each job or at anytime in which the job scopes changes. This form represents a combined safety meeting and hazard assessment. This form shall be reviewed with the workers and available at the worksite.

Date:	Time:
Supervisor:	Phone:
Alternate supervisor:	Phone:
Client/Owner (company):	Contact: Phone:
Location #1	Location #2
Location #3	
Job Description: <input type="checkbox"/> Utilities installation <input type="checkbox"/> Road building <input type="checkbox"/> Earthworks <input type="checkbox"/> Truck Haul <input type="checkbox"/> Other:	
Directions to job site:	
Emergency numbers: Ambulance:	Fire: Police: Other:
Muster point:	Secondary muster point: Other:
Emergency response plan:	

HAZARD ASSESSMENT (to be completed prior to work beginning on site)

HAZARD CHECKLIST	APPLICABLE	MITIGATION
1 First Call Confirmed	<input type="checkbox"/>	Safe work permit required <input type="checkbox"/>
2 Crossing agreements	<input type="checkbox"/>	Special training needed <input type="checkbox"/> Everyone on site aware <input type="checkbox"/> Permits on site <input type="checkbox"/>
3 Personal injury	<input type="checkbox"/>	Personnel fit for task <input type="checkbox"/> Eyes on task <input type="checkbox"/> Mind on task <input type="checkbox"/> Not in line of fire <input type="checkbox"/> Proper balance, grip, traction <input type="checkbox"/> 3 point contact <input type="checkbox"/> Appropriate PPE <input type="checkbox"/> Appropriate footwear <input type="checkbox"/> Stretching <input type="checkbox"/>
4 Underground facilities	<input type="checkbox"/>	Ground disturbance checklist <input type="checkbox"/> Everyone aware <input type="checkbox"/> 3rd Party crossing agreements on hand <input type="checkbox"/>
5 Overhead obstructions/power	<input type="checkbox"/>	Signs up <input type="checkbox"/> Barricades <input type="checkbox"/> Appropriate clearance <input type="checkbox"/>
6 Excavations/ditches/snake pits/burrows	<input type="checkbox"/>	Adequate access, egress <input type="checkbox"/> Stay back from edges <input type="checkbox"/> Sloping <input type="checkbox"/> Barricades <input type="checkbox"/> Fencing <input type="checkbox"/> Signs <input type="checkbox"/>
7 Heavy equipment activities	<input type="checkbox"/>	Communication <input type="checkbox"/> Reflective vests <input type="checkbox"/> Hand signals <input type="checkbox"/> Eye contact <input type="checkbox"/> Lower buckets/blades before exiting <input type="checkbox"/> 3 point mount and dismount <input type="checkbox"/> Seat belts <input type="checkbox"/>
8 Equipment loading/unloading	<input type="checkbox"/>	Proper procedure <input type="checkbox"/> Level ground <input type="checkbox"/> Spotters <input type="checkbox"/> Reflective vests <input type="checkbox"/> 5 meters from well head <input type="checkbox"/> Hand signals <input type="checkbox"/>
9 Pulling, towing, winching	<input type="checkbox"/>	Appropriate equipment <input type="checkbox"/> Keep distance <input type="checkbox"/> Hand signals <input type="checkbox"/> Location of slings <input type="checkbox"/> Spotter <input type="checkbox"/>
10 Special tools (out off saw, hole saw...)	<input type="checkbox"/>	Training <input type="checkbox"/> Appropriate PPE <input type="checkbox"/> Body position <input type="checkbox"/> Safe distance <input type="checkbox"/>
11 Jumping/jacks	<input type="checkbox"/>	Mixed fuel <input type="checkbox"/> Straight gas <input type="checkbox"/>
12 Driving conditions	<input type="checkbox"/>	Weather <input type="checkbox"/> Speed <input type="checkbox"/> Seatbelts <input type="checkbox"/> Cell phone <input type="checkbox"/> Vehicle pre-trip inspection <input type="checkbox"/> Obey traffic laws <input type="checkbox"/>
13 Wildlife on roads	<input type="checkbox"/>	Reduce speed <input type="checkbox"/> Keep eyes moving <input type="checkbox"/> Clean lights <input type="checkbox"/> Clean windows <input type="checkbox"/> Watch for 2nd animal <input type="checkbox"/>
14 Worker fatigue	<input type="checkbox"/>	Micro breaks <input type="checkbox"/> Hours of service <input type="checkbox"/> Everyone on site well rested <input type="checkbox"/>
15 Working alone	<input type="checkbox"/>	Means of communication <input type="checkbox"/> Cell initial out <input type="checkbox"/> Timing <input type="checkbox"/> Satellite phone <input type="checkbox"/>
16 Pumping water off site/ Pumps	<input type="checkbox"/>	Landowner approval <input type="checkbox"/> Water tested <input type="checkbox"/> Oil checked <input type="checkbox"/> Diesel <input type="checkbox"/> Gas <input type="checkbox"/>
17 Spills	<input type="checkbox"/>	Report immediately <input type="checkbox"/> Park on level ground <input type="checkbox"/> Do not rely on auto shut offs <input type="checkbox"/> Location of spill kit <input type="checkbox"/>
18 Garbage	<input type="checkbox"/>	Pick it up and take it out <input type="checkbox"/> Do not throw in truck boxes <input type="checkbox"/> Portable lavatory <input type="checkbox"/>
19 Parking	<input type="checkbox"/>	Designated parking area <input type="checkbox"/> Back in <input type="checkbox"/> Park side by side <input type="checkbox"/>
20 Confined space	<input type="checkbox"/>	Gas testing required <input type="checkbox"/> Checklist completed <input type="checkbox"/> Permits used/issued <input type="checkbox"/>
21 Truck haul	<input type="checkbox"/>	Dump on level ground <input type="checkbox"/> Stay back from truck box while loading <input type="checkbox"/> Bolt tailgates <input type="checkbox"/> Road use agreement <input type="checkbox"/> Ensure operation of tarps <input type="checkbox"/> Signage <input type="checkbox"/> Manifests <input type="checkbox"/> Dust control <input type="checkbox"/> Plastic/straw needed <input type="checkbox"/> Visibility <input type="checkbox"/> Loaded truck has right away <input type="checkbox"/> Clean hitches & box sides <input type="checkbox"/>
22 Fueling equipment	<input type="checkbox"/>	Designated area <input type="checkbox"/> No smoking around equipment while refueling <input type="checkbox"/>
23 ATV/snowmobile	<input type="checkbox"/>	Training <input type="checkbox"/> Helmets <input type="checkbox"/> Speed <input type="checkbox"/> Loading/unloading <input type="checkbox"/> Securing loads <input type="checkbox"/> Terrain <input type="checkbox"/>
24 Burning brush	<input type="checkbox"/>	Appropriate equipment <input type="checkbox"/> Permits <input type="checkbox"/> Fire extinguishers <input type="checkbox"/> Safety controls <input type="checkbox"/> Adequate berm <input type="checkbox"/>
25 Soil	<input type="checkbox"/>	Distance from tree line <input type="checkbox"/> Water available <input type="checkbox"/>
26 PPE	<input type="checkbox"/>	Type: Clay <input type="checkbox"/> Sand <input type="checkbox"/> Rock <input type="checkbox"/> Other <input type="checkbox"/> Condition: Wet <input type="checkbox"/> Dry <input type="checkbox"/> Other <input type="checkbox"/>
27 Safety equipment	<input type="checkbox"/>	Hard hats <input type="checkbox"/> Steel toed boots <input type="checkbox"/> Safety glasses <input type="checkbox"/> High visibility stripes/vest <input type="checkbox"/> Hearing protection <input type="checkbox"/>
28 Personnel fit for duty	<input type="checkbox"/>	Coveralls- fire retardant or regular or flagging <input type="checkbox"/> Gloves <input type="checkbox"/> Other <input type="checkbox"/>
29 Ground personnel	<input type="checkbox"/>	Fire extinguisher <input type="checkbox"/> First aid kit <input type="checkbox"/> Spill kit <input type="checkbox"/> Other <input type="checkbox"/>
30 Other:	<input type="checkbox"/>	No drugs or alcohol on site <input type="checkbox"/> No one on site under the influence of drugs or alcohol <input type="checkbox"/>

OTHER TOPICS DISCUSSED, INJURIES/INCIDENTS REVIEWED

ATTENDANCE (read and sign)

I am fully aware of the scope of the job, associated hazards and the legal responsibility of every worker to protect himself and all other workers at the worksite. I will comply with safety regulations and legislation regarding safety policies and procedures.

Name (print)	Signature	Name (print)	Signature

SUPERVISOR SIGNATURE: _____

DATE: _____

White copy- Office copy Pink copy- Job site copy Yellow copy- Client copy

February 2007



Shop Safety Meeting Form

 **Pidherney's**
DRIVEN TO EXCEL FROM START TO FINISH

Supplies Meeting Form

SHOP SAFETY MEETING FORM

Date: _____ Time: _____

Location: _____

Presenter name: _____
(please print)

Weekly Safety Opportunity Cards completed by all Personnel: _____

If the answer is no, who did not complete: _____

Date of last Shop Inspection: _____

Previous Items Outstanding:


Safety Opportunity Cards reviewed: List items discussed.

New Items

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Tailgate Meeting (Carbon Copy Booklets)

 **Pidherney's**

Office Use Only
Date: _____

TAILGATE MEETING

To Be Completed DAILY Prior to Work:

Date:	Time:	Client:	Job#:
Supervisor:	Phone:	Alt. Supervisor:	Phone:
Primary Muster Location:		Secondary:	

SUPERVISOR CHECKLIST

<input type="checkbox"/> Emergency Response Plan In Place	<input type="checkbox"/> First Aid Completed and Located On Site
<input type="checkbox"/> All Workers Fit for Duty	<input type="checkbox"/> Applicable Permits in Place
<input type="checkbox"/> JSA's for All Medium/High Hazard Work Reviewed	<input type="checkbox"/> Hazards Identified and Controls in Place

Conditions (Wind): _____ Temp: _____ Fog _____ Snow _____ Rain _____ Ice _____ Mud _____ Dust _____ Other: _____

Review of Previous Day (Incidents/Progress/Issues/Concerns/Corrective Action/etc.):
(Trenches/Support contractor work in proximity/Weddings/ Hazards created/etc.)

Description/Review of Today's Operations (Projection of Work/Tasks Assigned):

Additional Hazards and Controls Specific to Today's Work or Tasks:

Safety Moment (Employee Input):

Visitors expected, Green Workers, Subcontractors or other Services on site:

In Attendance: (All personnel on site must sign below acknowledging their understanding prior to commencing work)

NAME (Print)	SIGNATURE & Unit # (If applicable)	NAME (Print)	SIGNATURE & Unit # (If applicable)

Pidherney's Supervisor: _____ Reviewed By: _____

Revised 10/2017

Section 8 – Preventive Maintenance Program

Vehicle Safety Inspection (Carbon Copy Booklet)



**VEHICLE SAFETY INSPECTION
AND CONDITION REPORT**

M. PIDHERNEY'S TRUCKING
Highway 11, RR #70, P.O. Box 940
Rocky Mountain House, AB T4T 1A7
403-845-3072

MONTH DAY YEAR

TRUCK UNIT # / TRAILER UNIT #

LICENSED MASS TRUCK + LICENSED MASS TRAILER = TOTAL

Total not to exceed 11793 kg
unless truck and trailer CVIP'ed
and driver using log book.

TO BE COMPLETED AT THE BEGINNING AND END OF WORK SHIFT
CHECK ONLY IF ITEM NEEDS ATTENTION

Pre Trip	Post Trip		Pre Trip	Post Trip		Pre Trip	Post Trip	
<input type="checkbox"/>	<input type="checkbox"/>	Battery	<input type="checkbox"/>	<input type="checkbox"/>	Alternator	<input type="checkbox"/>	<input type="checkbox"/>	Safety Equipment
<input type="checkbox"/>	<input type="checkbox"/>	Body	<input type="checkbox"/>	<input type="checkbox"/>	Horn	<input type="checkbox"/>	<input type="checkbox"/>	Fine Extinguisher
<input type="checkbox"/>	<input type="checkbox"/>	Park Brake	<input type="checkbox"/>	<input type="checkbox"/>	Mirrors	<input type="checkbox"/>	<input type="checkbox"/>	First Aid Kit
<input type="checkbox"/>	<input type="checkbox"/>	Brakes	<input type="checkbox"/>	<input type="checkbox"/>	Muffler/Exhaust	<input type="checkbox"/>	<input type="checkbox"/>	Reflective Triangles
<input type="checkbox"/>	<input type="checkbox"/>	Defroster/Heater	<input type="checkbox"/>	<input type="checkbox"/>	Oil/Fuel/Fluid Leaks	<input type="checkbox"/>	<input type="checkbox"/>	Spare Bulbs & Fuses
<input type="checkbox"/>	<input type="checkbox"/>	Engine	<input type="checkbox"/>	<input type="checkbox"/>	Pink Card			
<input type="checkbox"/>	<input type="checkbox"/>	Oil Level/Pressure	<input type="checkbox"/>	<input type="checkbox"/>	Registration			
<input type="checkbox"/>	<input type="checkbox"/>	Antifreeze Level	<input type="checkbox"/>	<input type="checkbox"/>	Springs	<input type="checkbox"/>	<input type="checkbox"/>	TRAILER
<input type="checkbox"/>	<input type="checkbox"/>	Belts	<input type="checkbox"/>	<input type="checkbox"/>	Steering	<input type="checkbox"/>	<input type="checkbox"/>	Brake Connections
<input type="checkbox"/>	<input type="checkbox"/>	Trans Level	<input type="checkbox"/>	<input type="checkbox"/>	Tires	<input type="checkbox"/>	<input type="checkbox"/>	Breakaway Switch
<input type="checkbox"/>	<input type="checkbox"/>	Fuel Tank	<input type="checkbox"/>	<input type="checkbox"/>	Pressure	<input type="checkbox"/>	<input type="checkbox"/>	Brake Controller
<input type="checkbox"/>	<input type="checkbox"/>	Frame	<input type="checkbox"/>	<input type="checkbox"/>	Wear	<input type="checkbox"/>	<input type="checkbox"/>	Connected Securely
<input type="checkbox"/>	<input type="checkbox"/>	Lights	<input type="checkbox"/>	<input type="checkbox"/>	Wheels & Rims	<input type="checkbox"/>	<input type="checkbox"/>	Safety Chains w/ Clips
<input type="checkbox"/>	<input type="checkbox"/>	Head	<input type="checkbox"/>	<input type="checkbox"/>	Lug Nuts Tight	<input type="checkbox"/>	<input type="checkbox"/>	Lights - All
<input type="checkbox"/>	<input type="checkbox"/>	Stop	<input type="checkbox"/>	<input type="checkbox"/>	Windows/Cracks	<input type="checkbox"/>	<input type="checkbox"/>	Springs
<input type="checkbox"/>	<input type="checkbox"/>	Signal	<input type="checkbox"/>	<input type="checkbox"/>	Load Securement	<input type="checkbox"/>	<input type="checkbox"/>	Tires/Wheels
<input type="checkbox"/>	<input type="checkbox"/>	Clearance				<input type="checkbox"/>	<input type="checkbox"/>	Lug Nuts
<input type="checkbox"/>	<input type="checkbox"/>	ID				<input type="checkbox"/>	<input type="checkbox"/>	Registration
<input type="checkbox"/>	<input type="checkbox"/>	Cab				<input type="checkbox"/>	<input type="checkbox"/>	Load Securement
						<input type="checkbox"/>	<input type="checkbox"/>	Hitch

	TIME	LOCATION	KMS
PRE TRIP	am pm		
POST TRIP	am pm		

REMARKS _____

☐ NO DEFECTS FOUND

PRINT NAME _____

SIGNATURE _____

This inspection is done in
accordance with applica-
ble laws and legislation.


White - Office (Truck)

Yellow - Office (Trailer)

Pink - Driver (Keep)



Harness Inspection Form

 Job Trailer

Harness Inspection Form

A formal inspection to be completed monthly; ensure Harness is clean prior to completing inspection.

If inspection or operation reveals defective condition or has been subjected to a fall arrest or impact force, remove from service immediately and contact the Safety Department.


Webbing - Grasp the webbing with your hands and bend the webbing, checking both side. this creates surface tension making the damaged fibers or cuts easier to see. Webbing damage may not show up through a sight (visual) inspection only - manual (touch) the harness is equally important.

SITE INFORMATION			
Foreman:		Job Trailer	
Inspector:		Inspector Signature:	
Date of Inspection:			
Harness Model:		Manufacturer Date:	
Serial Number:		Lot Number:	
General Factors	Accepted	Rejected	Supportive Details or Comments
1. Hardware: (includes D-rings, buckles, keepers and back pads) Inspect for damage, distortion, sharp edges, burns, cracks, and corrosion.	<input type="checkbox"/>	<input type="checkbox"/>	
2. Webbing: Inspect for cuts, burns, tears, abrasion, frays, excessive soiling, and discoloration.	<input type="checkbox"/>	<input type="checkbox"/>	
3. Stitching: Inspect for pulled or out stitches.	<input type="checkbox"/>	<input type="checkbox"/>	
4. Labels: Inspect; make certain all labels are securely held in place and legible.	<input type="checkbox"/>	<input type="checkbox"/>	
5. Impact Indicator: Stitch intact; not deployed.	<input type="checkbox"/>	<input type="checkbox"/>	
6. Other:	<input type="checkbox"/>	<input type="checkbox"/>	
7. Overall: Disposition	<input type="checkbox"/>	<input type="checkbox"/>	
NOTES:			

Revised March 2018

Sling & Hook Inspection Form

Job Number:



Sling & Hook Inspection Form

Sling and Hook Inspection (Wire Rope & Chain)

A daily sling inspection prior to use shall be carried out by a competent person.


RESPONSIBILITIES:

1. To ensure hooks and slings are used according to the capacity and intended application.
2. Must be familiar with standard types and capacities of hooks and slings.
3. Never tie a sling in a knot or alter it in any way.
4. If hooks are painted, visual inspection should take the coating into consideration. Surface variations can disguise evidence of heavy or severe service. The surface condition may call for stripping the paint in such instances.
4. Always inspect prior to each use and Never use if in questionable condition.
5. A wire rope sling or hook shall be removed from service if conditions such as the following are present:

SITE INFORMATION		
Client / Project:	Location:	
Foreman:	Operator/Inspector:	
Foreman Signature:	Inspector Signature:	
Date of Inspection:		
SLING INFORMATION		
Sling Manufacturer:	Serial Number:	
Working Load Limit:	Sling Type:	
Expiry Date:	Hook Manufacturer:	
CHECK ALL ITEMS		
	YES	NO
Wire Rope Sling		
1. Inspection tag due date valid?	<input type="checkbox"/>	<input type="checkbox"/>
2. Manufacturing label missing or illegible?	<input type="checkbox"/>	<input type="checkbox"/>
3. Broken Wires: <ul style="list-style-type: none"> • For strand-laid and single-part slings, ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in one rope lay. • For cable-laid slings, 20 broken wires per lay. • For six-part braided slings, 20 broken wires per braid. • For eight-part braided slings, 40 broken wires per braid. 	<input type="checkbox"/>	<input type="checkbox"/>
4. Severe localized abrasion or scraping.	<input type="checkbox"/>	<input type="checkbox"/>
5. Kinking, crushing, bird-bagging, or any other damage resulting in damage to the rope structure.	<input type="checkbox"/>	<input type="checkbox"/>
6. Evidence of heat damage.	<input type="checkbox"/>	<input type="checkbox"/>
7. End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.	<input type="checkbox"/>	<input type="checkbox"/>
8. Severe corrosion of the rope, end attachments, or fittings.	<input type="checkbox"/>	<input type="checkbox"/>
9. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.	<input type="checkbox"/>	<input type="checkbox"/>
Chain Sling - Chain slings not to inspection (see more easily see damage or defects)		
10. Links by this inspection: <ul style="list-style-type: none"> • Excessive wear • Twisted, bent, gauged, nicked, worn or elongated links • Cracks in the Weld area or any portion of the link. Transverse cracking is the most dangerous. 	<input type="checkbox"/>	<input type="checkbox"/>
11. Identification grade visible on chain.	<input type="checkbox"/>	<input type="checkbox"/>
Hook		
12. Deformation - Any visibly apparent bend or twist from the plane of the unbent hook.	<input type="checkbox"/>	<input type="checkbox"/>
13. Throat opening - Any distortion causing an increase in throat opening exceeding 5 percent, not to exceed 1/4 inch. (or as recommended by the manufacturer).	<input type="checkbox"/>	<input type="checkbox"/>
14. Wear - Any wear exceeding 10 percent (or as recommended by the manufacturer) of the original section dimension of the hook or its load pin.	<input type="checkbox"/>	<input type="checkbox"/>
15. Cracks.	<input type="checkbox"/>	<input type="checkbox"/>
16. Latch - Inoperative because of wear or deformation or fails to fully bridge the throat opening.	<input type="checkbox"/>	<input type="checkbox"/>
17. Evidence of heat damage.	<input type="checkbox"/>	<input type="checkbox"/>
18. Welds - Evidence of fractures or cracks.	<input type="checkbox"/>	<input type="checkbox"/>
19. Plate - Evidence of wear, bend, twist, hook is not sitting flush on plate.	<input type="checkbox"/>	<input type="checkbox"/>
NOTES - Use other side for notes		

Winch and Tripod Inspection Form

Job Title:



Inspection of Winch & Tripod

Formal inspection is to be completed monthly; ensure Harness is clean prior to completing inspection.
If inspection or operation reveals defective condition or has been subjected to a fall arrest or impact force, remove from service immediately and contact the Safety Department.

SITE INFORMATION			
Foreman:		Job Trailer:	
Inspector:		Inspector Signature:	
Date of Inspection:			
TRIPOD INFORMATION			
Manufacturer:		Date of Manufacture:	
Serial #:			
CHECK ALL ITEMS	PASS	FAIL	COMMENT
Visual and Touch Inspection			
1. All bolts and nut must be securely attached.	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are there any missing altered or substituted bolts, nuts, locking detent pins or other parts?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Is there any sign of corrosion which may weaken or affect parts in their function?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does each leg telescope in and out freely?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does each leg lock into place when the tripod is erect?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Check the feet on each leg, ensure they pivot and the	<input type="checkbox"/>	<input type="checkbox"/>	
7. Check leg chain and connections; ensure they are tight and undamaged, chain must be free of defects and hook must be in place and work properly.	<input type="checkbox"/>	<input type="checkbox"/>	
8. Inspect the labels, labels are present and fully legible.	<input type="checkbox"/>	<input type="checkbox"/>	
WINCH INFORMATION			
Winch Manufacturer:		Model #:	
Serial #:		Date of Manufacture:	
Date of Re-Certification:			
GENERAL	PASS	FAIL	COMMENT
1. Load Impact Indicator			
2. Housing cover			
3. Deformation			
4. Labeling (tags)			
5. Crank handle			
6. Attachment swivel			
SNAP HOOKS			
1. Swivel Connectors			
2. Hook Body & Hook Nose			
3. Gate Keeper & Lock			
4. Eye & Hinge			
5. Spring (inside gate)			
WIRE ROPE - Grasp wire rope with your hands and rotate, checking both sides. Watch for unusual wearing patterns on the wire. Broken strands or wires will separate from the body of the wire rope. To avoid injury always wear protective gloves when inspecting a wire rope lifeline.			
1. Cuts, frayed areas			
2. Worn or broken strands/wires			
3. Overall deterioration/excessive outside wear			
4. Rust/pitting/corrosion			
5. Crushed/jammed or flattened strands			
6. Bulges in rope			
7. Gaps between strands			
8. Heat damage, torch burns, or electric arc strikes			
9. Kinks, bird-caging			
10. Core protrusion			

Small Engines Inspection Form - Field Copy



Date:	Unit or S/N #
Make/Model:	Hour meter if applicable #
Job Var#	Foreman:

Item	Satisfactory (yes/no)	Item	Satisfactory (yes/no)
Oil change complete? Oil Type:	Yes <input type="checkbox"/> No <input type="checkbox"/>	Air filters replaced?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Guards/ Safety Controls in place?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Pull cords in good shape?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Moving parts greased?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Electrical components work?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Fluids topped up?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Any visible damage? If yes, please explain	Yes <input type="checkbox"/> No <input type="checkbox"/>
Inspected for leaks?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Any repairs required, If yes, please explain	Yes <input type="checkbox"/> No <input type="checkbox"/>
Air filters inspected?	Yes <input type="checkbox"/> No <input type="checkbox"/>		

Additional Comments:

Inspector Name _____

Inspector Signature _____

Revised April 2018/CC

APPENDIX B: Forms

Light Duty Vehicle Inspection Form



Date:	Unit #:
Make/Model Year:	Odometer Reading (km):
Next Service Due:	

Documentation

Item	Checked (yes/no)
Insurance	Yes <input type="checkbox"/> No <input type="checkbox"/>
Registration	Yes <input type="checkbox"/> No <input type="checkbox"/>

Vehicle Interior

Item	Satisfactory (yes/no)
Heating	Yes <input type="checkbox"/> No <input type="checkbox"/>
Air Conditioner	Yes <input type="checkbox"/> No <input type="checkbox"/>
Windshield defogging system	Yes <input type="checkbox"/> No <input type="checkbox"/>
Window operation	Yes <input type="checkbox"/> No <input type="checkbox"/>
Door handles/locks	Yes <input type="checkbox"/> No <input type="checkbox"/>
Doors	Yes <input type="checkbox"/> No <input type="checkbox"/>
Seats & covers	Yes <input type="checkbox"/> No <input type="checkbox"/>
Clean exterior/interior	Yes <input type="checkbox"/> No <input type="checkbox"/>
Turn signals	Yes <input type="checkbox"/> No <input type="checkbox"/>
Radio 2 way	Yes <input type="checkbox"/> No <input type="checkbox"/>
First Aid Kit/Stocked – under back seat of driver's side	Yes <input type="checkbox"/> No <input type="checkbox"/>
Horn	Yes <input type="checkbox"/> No <input type="checkbox"/>
Emergency brake	Yes <input type="checkbox"/> No <input type="checkbox"/>
Seat belts work & free of damage/excessive wear	Yes <input type="checkbox"/> No <input type="checkbox"/>
Track Shovel	Yes <input type="checkbox"/> No <input type="checkbox"/>
No warning lights are on	Yes <input type="checkbox"/> No <input type="checkbox"/>

*(Disclosure: Visual Inspection only
NOT a Mechanical Inspection)*

Vehicle Exterior

Item	Satisfactory (yes/no)
Fire Extinguisher (Valid)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Windows/windshield good repair	Yes <input type="checkbox"/> No <input type="checkbox"/>
Headlights (high/low beam)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Tail lights/brake lights/turn signals	Yes <input type="checkbox"/> No <input type="checkbox"/>
Beacon light (installed or in truck)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Triangle/ flare kit	Yes <input type="checkbox"/> No <input type="checkbox"/>
Vehicle free of damage	Yes <input type="checkbox"/> No <input type="checkbox"/>
Spill kit	Yes <input type="checkbox"/> No <input type="checkbox"/>
Placards	Yes <input type="checkbox"/> No <input type="checkbox"/>
Company Stickers	Yes <input type="checkbox"/> No <input type="checkbox"/>
Spare tire & located under frame	Yes <input type="checkbox"/> No <input type="checkbox"/>
Tools for replacing tire (jack/bolt wrench)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Oil fluid level good	Yes <input type="checkbox"/> No <input type="checkbox"/>
Windshield fluid (extra)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Slip tank pump operating	Yes <input type="checkbox"/> No <input type="checkbox"/>
Tool box good repair	Yes <input type="checkbox"/> No <input type="checkbox"/>
Grease Gun / Grease	Yes <input type="checkbox"/> No <input type="checkbox"/>

Additional Comments:

Unit issued to (print & sign):

Indicate body damages on the diagram provided.

Document & Form #10-000

Light Duty Truck Inspection - Field Copy



Client Name: _____

Date:	Unit #:
Make/Model Year:	Odometer Reading (km):
Next Service Due:	

Documentation

Item	Checked (yes/no)
Insurance	Yes <input type="checkbox"/> No <input type="checkbox"/>
Registration	Yes <input type="checkbox"/> No <input type="checkbox"/>

Vehicle Interior

Item	Satisfactory (yes/no)
No warning lights are on	Yes <input type="checkbox"/> No <input type="checkbox"/>
Window operation	Yes <input type="checkbox"/> No <input type="checkbox"/>
Door handles/locks	Yes <input type="checkbox"/> No <input type="checkbox"/>
Doors	Yes <input type="checkbox"/> No <input type="checkbox"/>
Seats & covers	Yes <input type="checkbox"/> No <input type="checkbox"/>
Clean exterior/interior	Yes <input type="checkbox"/> No <input type="checkbox"/>
Turn signals	Yes <input type="checkbox"/> No <input type="checkbox"/>
First Aid Kit/Stocked – under back seat of driver's side	Yes <input type="checkbox"/> No <input type="checkbox"/>
Horn	Yes <input type="checkbox"/> No <input type="checkbox"/>
Emergency brake	Yes <input type="checkbox"/> No <input type="checkbox"/>
Seat belts work & free of damage/excessive wear	Yes <input type="checkbox"/> No <input type="checkbox"/>

Vehicle Exterior

Item	Satisfactory (yes/no)
Fire Extinguisher (Valid)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Windows/windshield good repair	Yes <input type="checkbox"/> No <input type="checkbox"/>
Headlights (high/low beam)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Tail lights/brake lights/turn signals	Yes <input type="checkbox"/> No <input type="checkbox"/>
Beacon light (installed or in truck)	Yes <input type="checkbox"/> No <input type="checkbox"/>
Triangle/flare kit	Yes <input type="checkbox"/> No <input type="checkbox"/>
Vehicle free of damage If "no" was it reported?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Spill kit	Yes <input type="checkbox"/> No <input type="checkbox"/>
Placards	Yes <input type="checkbox"/> No <input type="checkbox"/>
Company Stickers	Yes <input type="checkbox"/> No <input type="checkbox"/>
Spare tire & located under frame	Yes <input type="checkbox"/> No <input type="checkbox"/>
Slip tank pump operating	Yes <input type="checkbox"/> No <input type="checkbox"/>
Tool box good repair	Yes <input type="checkbox"/> No <input type="checkbox"/>
Load Securement Net?	Yes <input type="checkbox"/> No <input type="checkbox"/>


Additional Comments:

Truck Issued to: _____

Revised March 2018



Damage Notification Form


 <p>Pidherney's Inc. Highway 11/R.R. 70 5 miles east of R.M.H. P.O. Box 940 Rocky Mtn. House, AB T4T 1A7 403-845-3072</p>		Risk Ranking Check One
DAMAGE NOTIFICATION CARD BOTH SIDES OF THIS CARD MUST BE COMPLETED		<input type="checkbox"/> HIGH
Unit #:		<input type="checkbox"/> MEDIUM
Reported By:	LSD/Job #:	<input type="checkbox"/> LOW
Date:	Client/Owner:	
Description of event and people involved:		
<div style="border: 1px solid black; height: 150px;"></div>		
<input type="checkbox"/> Oilfield <input type="checkbox"/> Underground <input type="checkbox"/> Earthworks <input type="checkbox"/> Transit Mix <input type="checkbox"/> Rocky Shop/Yard <input type="checkbox"/> Blackfalds Shop/Yard <input type="checkbox"/> Field Mechanics <input type="checkbox"/> Crusher <input type="checkbox"/> Hydrovac <input type="checkbox"/> Trucking <input type="checkbox"/> Pits		
Incident Code: (Office Use Only)		
Description: (Office Use Only)		

EQUIPMENT TYPE		
<input type="checkbox"/> Dozer	<input type="checkbox"/> Low Bed	<input type="checkbox"/> Heavy Truck
<input type="checkbox"/> Hoe	<input type="checkbox"/> Forklift	<input type="checkbox"/> Tractor
<input type="checkbox"/> Grader	<input type="checkbox"/> Skidsteer	<input type="checkbox"/> Excavator
<input type="checkbox"/> Loader	<input type="checkbox"/> Packer	<input type="checkbox"/> Attachments
<input type="checkbox"/> Other	<input type="checkbox"/> Pick-up Truck	
DAMAGE DETAILS		
DAMAGE TYPE	SPECIFIC DAMAGE LOCATION	
<input type="checkbox"/> Body Damage		
<input type="checkbox"/> Mechanical Damage		
<input type="checkbox"/> Glass Damage		
<input type="checkbox"/> Under Carriage		
<input type="checkbox"/> Tires & Rims		
<input type="checkbox"/> Animal Hit		
<input type="checkbox"/> Damage to Third Party		
<input type="checkbox"/> Product Leak		
<input type="checkbox"/> Other		
CONTRIBUTING FACTORS		
<input type="checkbox"/> Unsafe Act	<input type="checkbox"/> Inadequate Training/Competency	<input type="checkbox"/> Failed to follow:
<input type="checkbox"/> Unsafe Condition	<input type="checkbox"/> Inadequate Leadership/Supervision	<input type="checkbox"/> Safe Job Procedure
<input type="checkbox"/> Complacency	<input type="checkbox"/> Inadequate Hazard Identification	<input type="checkbox"/> Safe Work Practice
<input type="checkbox"/> Mechanical Failure	<input type="checkbox"/> Inadequate Communication	<input type="checkbox"/> Instruction
<input type="checkbox"/> Stress / Fatigue	<input type="checkbox"/> Inadequate Equipment or Tools	<input type="checkbox"/> Job Safety Analysis JSA
<input type="checkbox"/> Other- EXPLAIN		
FOLLOW-UP ACTION		
<input type="checkbox"/> Review Procedure (List procedure reviewed)		
<input type="checkbox"/> Review Practice (List practice reviewed)		
<input type="checkbox"/> Review JSA (List JSA reviewed)		
<input type="checkbox"/> Verbal Warning (Attached) <input type="checkbox"/> Written Warning (Done by Management)		
<input type="checkbox"/> OTHER (Explain)		
<input type="checkbox"/> ACTION COMPLETED DATE		
Foreman/Dispatcher Name:		
Manager/Superintendent:		
Safety Representative:		



Section 9 - Orientation, Training and Communication

Short Service Employee Form (SSE Form)

 **Pidherney's**
DRIVEN TO EXCEL FROM START TO FINISH

Client Service Employees

Short-Service Employee Form

Contractor Company Name:		Request Date:	
Short Service Employee Name:			
Date of Employment:		Years Onfield Experience:	
Current Job Title:		Experience in Present Position:	
Previous Employer (s)			
1		Years:	
2		Years:	
3		Years:	
1. Is the employee trained to safely perform this job?		Yes	No
2. Is the employee in compliance with your Substance Abuse Program?		Yes	No
3. Review of contractor HES Policies (including Stop Work Authority)?		Yes	No
By Whom?			

4. Who has been assigned as SSE Mentor(s)?

A. _____

B. _____

C. _____

5. List all training provided to SSE

A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

6. List any Previous Training

A. _____

B. _____

C. _____

D. _____

SSE Review and Approval: Removal from SSE Program:

Contractor Management Name:		
Signature:		
Date:		



Civil Green Worker Form



Pidherney's

Green Worker Form

Civil Green Worker Form

Green Worker Name:			
Date of Employment:		Expected Date of Competency:	
Driver's License:	Yes	No	Does the worker hold a GDL? Yes No
Current Job Title:		Foreman:	
Previous Employer (s)			
1			Years:
2			Years:
3			Years:

1. Has the hazard assessment been reviewed with the new worker?	Yes	No
2. Site orientation completed?	Yes	No
3. Site-specific practices and procedures reviewed?	Yes	No
3. Is the worker aware of the ERP? First Aid Supplies and Eye Wash Station located?	Yes	No
4. Location of SDS Binder, Safety Manual including SWP and SDP?	Yes	No
By Whom?		

4. Who has been assigned as Mentor(s)? (to be revised when the worker changes crews)	
A.	
B.	
C.	
5. List all training provided to Green Worker (To be filled Safety Personnel)	
A.	
B.	
C.	
D.	
E.	
F.	
6. List any Previous Training (Mentor is to request proof of certification)	
A.	
B.	
C.	
D.	

Mentor		Foreman	
Name:			
Signature:			
Date:			

This document is uncontrolled when printed

Revised March 2018 SMC



Rev: 002



Worker Assessment Checklist		
Worker Name (first & last)	Job Position	Date of Assessment
<input type="checkbox"/> New Worker	<input type="checkbox"/> Returning Worker	<input type="checkbox"/> Re-Evaluation
Worker assessment to be completed on all new "Green Workers" 12 weeks from date of hire. This checklist should also be used to assess a returning worker that has been away from the job for more than 6 months. Check appropriate boxes if "unsafe" or mark N/A. If "unsafe", provide corrective action comments for worker.		
Company Policies & Procedures:	"X" if Unsafe	Add comments below or check the box to the right if all items on list are "safe"
Emergency Response Plan (ERP)		
Knows ERP Procedures:		
Knows the location of Muster Points:		
Knows who is trained in first aid:		
Knows the location of first aid kit, eyewash and fire extinguishers:		
Knows the location of SDS Binder, Safe Work Manual, SWP and SOPs:		
PPE requirements for the job:		
Safety		
Can identify worksite hazards/controls:		
Actively participates in daily activities (i.e. meetings, JSA's, etc.):		
Understands and follows site rules:		
Demonstrates safe use of tools & equip:		
Makes eye contact with equipment operators before approaching:		
Uses 3-point mount / dismount:		
Completes pre-operational checklist(s) (when required):		
Has required license / certificate(s):		
Wears proper PPE for the task:		
Completes required safety paperwork- BBO, JSA's, Site Inspection Reports, etc.:		
Competency (review with Mentor)		
Do their tasks as efficiently as an experienced worker:		
Operate equipment - operator competency completed?		
Demonstrate safe use of tools?		
General		
Is alert and focused on job:		
Follow instructions given by the supervisor:		
Arrives to work fit for duty, punctuality, attendance:		
Understands the right to refuse unsafe work:		
Personal Protective Equipment (PPE)		
Hard hat:		
Uses appropriate eye / face protection:		
Uses required hearing protection:		
Wears high visibility / protective clothing:		
Wears appropriate footwear for job - Approved safety boots with ankle support:		
Wear the appropriate green worker identification:		
Other:		
Additional Comments: <input type="checkbox"/> New worker is competent to perform assigned duties under normal supervision		
Signature of Employee / Contractor		Signature of Supervisor / Trainer



Operator Competency

Competency Checklist

OPERATOR COMPETENCY CHECKLIST

Name of Worker _____		
Check all equipment types that the worker is competent to operate. Note: If the worker is a new operator for any of the equipment types listed, a separate operator competency checklist must be filled out so that competency can be re-evaluated in 3 months.		
<input type="checkbox"/> Excavator <input type="checkbox"/> Dozer <input type="checkbox"/> Grader <input type="checkbox"/> Loader <input type="checkbox"/> Bobcat <input type="checkbox"/> Rock Truck <input type="checkbox"/> Skid Steer <input type="checkbox"/> Tractor <input type="checkbox"/> Back Hoe <input type="checkbox"/> Packer <input type="checkbox"/> Discs <input type="checkbox"/> Other _____		
Indicate operator is competent by checking the box below. Mark N/A if item is not applicable.		
PRE-STARTUP		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Checked radiator coolant level
<input type="checkbox"/>	<input type="checkbox"/>	Checked Hydraulic oil level
<input type="checkbox"/>	<input type="checkbox"/>	Walked around machine to check for leaks/repairs needed, safe to move
<input type="checkbox"/>	<input type="checkbox"/>	Checked engine oil level
PRE-OPERATION		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Noted hazards present in work area (overhead/underground facilities)
<input type="checkbox"/>	<input type="checkbox"/>	Noted objects present in work area (buildings, vehicles, other equipment)
<input type="checkbox"/>	<input type="checkbox"/>	Noted work site conditions, layout (soft/muddy/cy areas, slopes, banks, split piles)
<input type="checkbox"/>	<input type="checkbox"/>	Ensured windows are clean
<input type="checkbox"/>	<input type="checkbox"/>	Ensured backup alarm in operation
<input type="checkbox"/>	<input type="checkbox"/>	Used safe practices when putting on blade/changing buckets and attachments
<input type="checkbox"/>	<input type="checkbox"/>	Used safe practices when refueling/greasing machine
<input type="checkbox"/>	<input type="checkbox"/>	Sufficient engine and hydraulic warm-up
<input type="checkbox"/>	<input type="checkbox"/>	Participated in the pre-job safety/tailgate meeting
OPERATION		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Knowledge of controls, safety lockouts
<input type="checkbox"/>	<input type="checkbox"/>	Smooth operation of controls
<input type="checkbox"/>	<input type="checkbox"/>	Caution when working around hazards, objects, slopes, banks, etc.
<input type="checkbox"/>	<input type="checkbox"/>	Awareness of ground personnel (proximity to machine, recognizing and following signals)
<input type="checkbox"/>	<input type="checkbox"/>	Stounded blade, ripper/bucket, attachment and used lockouts before exiting machine
<input type="checkbox"/>	<input type="checkbox"/>	Looks in front/behind before moving/backing up
Notes (Supervisor comments): _____		

By initialing below the worker acknowledges that they are competent in the following items:

Worker Initials	Training has included the following items:
	a) the selection of the appropriate equipment
	b) the limitations of the equipment
	c) an operator's pre-use inspection
	d) the use of the equipment
	e) the operator skills required by the manufacturer's specifications for the equipment
	f) the basic mechanical and maintenance requirements of the equipment
	g) loading and unloading the equipment if doing so is a job requirement
	h) the hazards specific to the operation of the equipment at the work site

Name of Supervisor/Trainer

Date

Supervisor/Trainer Signature

Worker Signature

Officer/Supervisor/Trainer



Forklift Operator Competency



Pidherney's

Operating Manual

FORKLIFT OPERATOR COMPETENCY CHECKLIST

Name of Worker		
Equipment Type & Model		
Indicate operator is competent by checking the box below. And item receiving 'needs coaching' must be addressed under "Supervisor/Trainer Comments".		
PRE-STARTUP:		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Perform a pre-operation walk-around and completes Forklift Inspection Log.
<input type="checkbox"/>	<input type="checkbox"/>	Demonstrates knowledge of equipment (controls, capacities, etc.)
BASIC FORKLIFT OPERATION:		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Starting vehicle.
<input type="checkbox"/>	<input type="checkbox"/>	Driving backward and forward, using shoulder checks when necessary.
<input type="checkbox"/>	<input type="checkbox"/>	Come to complete stop before shifting directions (forward/reverse).
<input type="checkbox"/>	<input type="checkbox"/>	Slows down and sounds horn when entering and exiting building, intersections, aisles.
<input type="checkbox"/>	<input type="checkbox"/>	Arms and legs in truck at all times.
<input type="checkbox"/>	<input type="checkbox"/>	Turns corners correctly, aware of the rear end swing.
<input type="checkbox"/>	<input type="checkbox"/>	Pedestrian traffic awareness.
<input type="checkbox"/>	<input type="checkbox"/>	Maintains proper speed.
<input type="checkbox"/>	<input type="checkbox"/>	Proper parking technique.
OPERATING FORKLIFT WITH A LOAD:		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Travels with load at proper height.
<input type="checkbox"/>	<input type="checkbox"/>	Ensures load is balanced.
<input type="checkbox"/>	<input type="checkbox"/>	Ensures forks are under load fully and load is tilted back slightly.
REMOVING AND STACKING A LOAD:		
<input type="checkbox"/>	<input type="checkbox"/>	Knows load limit of truck & where name plate is located on forklift.
<input type="checkbox"/>	<input type="checkbox"/>	Truck is stopped prior to raising or lowering forks.
<input type="checkbox"/>	<input type="checkbox"/>	Checked for overhead clearance.
<input type="checkbox"/>	<input type="checkbox"/>	Picks up load properly.
<input type="checkbox"/>	<input type="checkbox"/>	Proper stacking, load placement.
REFUELING:		
<input type="checkbox"/>	<input type="checkbox"/>	Change propane tank.
Notes (Supervisor/Trainer comments):		

By initialing below the worker acknowledges that they are competent in the following items:

Worker Initial	Training has included the following items:
	a) the selection of the appropriate equipment.
	b) the limitations of the equipment.
	c) an operator's pre-use inspection.
	d) the use of the equipment.
	e) the operator skills required by the manufacturer's specifications for the equipment.
	f) the basic mechanical and maintenance requirements of the equipment.
	g) the hazards specific to the operation of the equipment at the work site.

Name of Supervisor/Trainer

Supervisor/Trainer Signature

Date

Worker Signature



Trailer Competency Checklist



Pidherney's



Competency Checklist

TRAILER COMPETENCY CHECKLIST

Name of Worker		
Trailer Type & Model		
Has the worker completed the following training: <input type="checkbox"/> Completion of ACSA Load Securement Safety Course (LSSC) <input type="checkbox"/> Training in SOP Trailer Safety & Hook Up Procedure <input type="checkbox"/> Practical training in Trailer Safety & Hook Up Procedure <input type="checkbox"/> Completion of Vehicle Safety Inspection and Condition Report (Pre/Post Inspection required)		
Indicate operator is competent by checking the box below. Mark N/A if item is not applicable.		
PRE-TRIP CHECKLIST		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Breakaway battery – fully charged, connections clean.
<input type="checkbox"/>	<input type="checkbox"/>	Safety chains and hooks – check for wear and damage
<input type="checkbox"/>	<input type="checkbox"/>	Coupler and hitch ball – checked for cracks, pits, and flats
<input type="checkbox"/>	<input type="checkbox"/>	Leg Jacks
<input type="checkbox"/>	<input type="checkbox"/>	King and Pintle – checked for cracks, pits, and flats
<input type="checkbox"/>	<input type="checkbox"/>	Tires – tread, damage, tire pressure - Load Rating & Matching
<input type="checkbox"/>	<input type="checkbox"/>	Wheels – Lug Nuts/Bolts & Hub – secure? Missing?
<input type="checkbox"/>	<input type="checkbox"/>	Running lights, brake lights, turn signals, and hazard lights
<input type="checkbox"/>	<input type="checkbox"/>	Reflectors intact
<input type="checkbox"/>	<input type="checkbox"/>	License plate and light? Insurance/registration?
<input type="checkbox"/>	<input type="checkbox"/>	Body and floor of trailer in good conditions.
<input type="checkbox"/>	<input type="checkbox"/>	Tie downs in good condition, free of damage?
PRE-OPERATION		
Competent	Needs Coaching	
<input type="checkbox"/>	<input type="checkbox"/>	Noted objects present in work area (buildings, vehicles, other equipment)
<input type="checkbox"/>	<input type="checkbox"/>	Noted work site conditions, layout (soft/muddy/icy areas, slopes, banks,)
<input type="checkbox"/>	<input type="checkbox"/>	Trailer type designed for intended usage
<input type="checkbox"/>	<input type="checkbox"/>	Checked tire information or User's Manual for maximum recommended load for the vehicles?
<input type="checkbox"/>	<input type="checkbox"/>	Cargo loaded from front to rear? Balanced from side to side? Heavy items placed near the trailer axle centerline? (When connected, the trailer and tow vehicle are level at the hitching point?)
<input type="checkbox"/>	<input type="checkbox"/>	Securing small equipment – proper size chains for weight load. Minimum 4 chains and 4 ratchets. front and back chains crossed over each other (i.e. right hookup point on equipment attached to left side of trailer). secured to the appropriate hook up points on equipment.
<input type="checkbox"/>	<input type="checkbox"/>	Cargo securely fastened on trailer? Cargo secured with certified tie downs and/or chains
<input type="checkbox"/>	<input type="checkbox"/>	Ensure ball is the proper size for the trailer hitch of the trailer. Ensure the trucks hitch has the sleeve installed.



Directional Drill Competency

JOB NUMBER: _____

DIRECTIONAL DRILL COMPETENCY CHECKLIST

Name of Worker	_____
Equipment Type & Model	_____
Indicate operator is competent by checking the box below. Mark N/A if item is not applicable.	
PRE-STARTUP	
<input type="checkbox"/>	Checked radiator/coolant level and leaks.
<input type="checkbox"/>	Visual check of hydraulic system.
<input type="checkbox"/>	Walked around machine to check for leaks, repairs needed, safe to move.
<input type="checkbox"/>	Carries out fluid level checks to manufacturer's specifications (engine, transmission, and hydraulic).
<input type="checkbox"/>	Visual check on general condition of body, cab & chassis for damage and defects.
<input type="checkbox"/>	Check drill bit and drill rod.
<input type="checkbox"/>	Ensure locator and beacon is calibrated before each drill.
PRE-OPERATION	
<input type="checkbox"/>	Noted hazards present in work area (overhead, underground, above ground lines, facilities).
<input type="checkbox"/>	Noted objects present in work area (buildings, vehicles, other equipment).
<input type="checkbox"/>	Noted work site conditions, layout (soft/muddy/icy areas, slopes, banks, soil piles).
<input type="checkbox"/>	Ensured windows and mirrors are clean.
<input type="checkbox"/>	Checks audible warning system.
<input type="checkbox"/>	Used safe practices when putting on Reamers & Drill Bits.
<input type="checkbox"/>	Checks all instruments, gauges & monitoring devices and indicates correct functions before operating.
<input type="checkbox"/>	Used safe practices when refueling/greasing machine.
<input type="checkbox"/>	Sufficient engine and hydraulic warm-up.
<input type="checkbox"/>	Ensure all receivers are in good working order.
<input type="checkbox"/>	Participated in the pre-job safety/fatigue meeting.
OPERATION	
<input type="checkbox"/>	Knowledge of controls, safety lockouts.
<input type="checkbox"/>	Smooth operation of controls.
<input type="checkbox"/>	Keeps people away from rotating parts in the work area.
<input type="checkbox"/>	Caution when working around hazards, objects, slopes, banks, etc.
<input type="checkbox"/>	Awareness of ground personnel (proximity) to machine, recognizing and following signals.
<input type="checkbox"/>	Use lockouts before exiting machine.
<input type="checkbox"/>	Looks behind before moving/backing up.
<input type="checkbox"/>	Ensures there are not any leaks in the water system.
<input type="checkbox"/>	Does not rotate pipe without communication with locator.
Notes (Supervisor comments): _____	

By initialing below the worker acknowledges that they are competent in the following items:

Worker Initial	Training has included the following items:
	a) the selection of the appropriate equipment.
	b) the limitations of the equipment.
	c) an operator's pre-use inspection.
	d) the use of the equipment.
	e) the operator skills required by the manufacturer's specifications for the equipment.
	f) the basic mechanical and maintenance requirements of the equipment.
	g) loading and unloading the equipment if doing so is a job requirement.
	h) the hazards specific to the operation of the equipment at the work site.

Name of Supervisor/Trainer


Supervisor/Trainer Signature

Date

Worker Signature



Fusion Tech Competency

 **Pidherney's** Competency Checklist

FUSION TECH COMPETENCY CHECKLIST

Name of Worker	
Equipment Type & Model	
Indicate operator is competent by checking the box below. Mark N/A if item is not applicable.	
Demonstrate the safe operation of fusion equipment	
<input type="checkbox"/> Proper set up	
<input type="checkbox"/> Loading pipe safely	
<input type="checkbox"/> Safe operation of controls	
<input type="checkbox"/> Ability to follow procedure	
PRE-STARTUP	
<input type="checkbox"/> Pre job hazard assessment	
<input type="checkbox"/> Check oil fluid levels	
<input type="checkbox"/> Walked around machine to check for leaks, repairs needed	
<input type="checkbox"/> Checked engine oil level in power plant	
<input type="checkbox"/> Worker is aware of all pinch points	
<input type="checkbox"/> Worker is wearing all appropriate PPE	
<input type="checkbox"/> Work area is clear of all tripping hazards	
STARTUP	
<input type="checkbox"/> Pipe is in proper place before loading first joints	
<input type="checkbox"/> Measured the distance of work area to pull and store fused pipe string(s)	
<input type="checkbox"/> Noted work site conditions, layout, soft/muddy/vic areas, slopes, banks, soil piles	
<input type="checkbox"/> Ensured pipe can be placed where needed, no overhead obstructions or fences	
<input type="checkbox"/> Used safe practices for machine startup	
<input type="checkbox"/> Ensure all machine function are working properly	
<input type="checkbox"/> Used safe practices when refueling/greasing machine	
<input type="checkbox"/> Sufficient engine and hydraulic warm-up	
<input type="checkbox"/> Participated in the pre-job safety/site meeting	
OPERATION	
<input type="checkbox"/> Worker loads pipe in the machine safely	
<input type="checkbox"/> Worker has means of communication with helper to pull the pipe string	
<input type="checkbox"/> Worker has proved proper rigging for loading and pulling pipe	
<input type="checkbox"/> Worker is smooth at controls and confident with their operation	
<input type="checkbox"/> Worker demonstrates knowledge of the fusion procedure	
Notes (Supervisor comments)	

By initialing below the worker acknowledges that they are competent in the following items:

Worker Initial	Training has included the following items:
	a) the selection of the appropriate equipment
	b) the limitations of the equipment
	c) an operator's pre-use inspection
	d) the use of the equipment
	e) the operator skills required by the manufacturer's specifications for the equipment
	f) the basic mechanical and maintenance requirements of the equipment
	g) the hazards specific to the operation of the equipment at the worksite

Name of Supervisor/Trainer

Date

Supervisor/Trainer Signature

Worker Signature




Worker Observation

WORKER OBSERVATION		Overall Risk Ranking HIGH MEDIUM LOW SAFE	
Observer Name:			
Date:	LSD/Job #:		
Client / Owner:			
BEHAVIORS OBSERVED		Safe	At Risk
WORKER ACTIONS			
Procedures followed		<input type="checkbox"/>	<input type="radio"/>
Procedures understood		<input type="checkbox"/>	<input type="radio"/>
Not rushing		<input type="checkbox"/>	<input type="radio"/>
Not distracted		<input type="checkbox"/>	<input type="radio"/>
Eyes on task		<input type="checkbox"/>	<input type="radio"/>
Balance, grip, traction		<input type="checkbox"/>	<input type="radio"/>
Good communication		<input type="checkbox"/>	<input type="radio"/>
Good attitude		<input type="checkbox"/>	<input type="radio"/>
PROTECTIVE MEASURES			
PPE - (required, good condition, worn properly)		<input type="checkbox"/>	<input type="radio"/>
Guards, screens, rails		<input type="checkbox"/>	<input type="radio"/>
Proper body mechanics		<input type="checkbox"/>	<input type="radio"/>
EQUIPMENT			
Safe condition		<input type="checkbox"/>	<input type="radio"/>
Safe use		<input type="checkbox"/>	<input type="radio"/>
Correct tool for task		<input type="checkbox"/>	<input type="radio"/>
JOB SITE			
Housekeeping (safety and environmental)		<input type="checkbox"/>	<input type="radio"/>
Proper signage		<input type="checkbox"/>	<input type="radio"/>
Utilities flagged off		<input type="checkbox"/>	<input type="radio"/>
Weather conditions		<input type="checkbox"/>	<input type="radio"/>
Type of work observed:			
Behavior observed:		Input Given: Positive feedback or correction:	
Change in behavior observed?		Follow up action required?	
<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Department: <input type="checkbox"/> Outfield <input type="checkbox"/> Civil <input type="checkbox"/> Other _____			



Section 11 - Incidents and Investigations

Incident Investigation Report



INCIDENT INVESTIGATION REPORT

<input type="checkbox"/> OILFIELD	<input type="checkbox"/> TRUCKING	<input type="checkbox"/> EARTHWORKS	<input type="checkbox"/> UNDERGROUND	<input type="checkbox"/> PITS
<input type="checkbox"/> ROCKY SHOPIYARD	<input type="checkbox"/> BLACKFALDS SHOPIYARD	<input type="checkbox"/> FIELD MECHANICS	<input type="checkbox"/> CRUISER	

LOCATION: _____	JOB#/LTD: _____	UNITS: _____
DATE OF INCIDENT: <small>(Click here)</small>	TIME: _____	COMPANY/CLIENT: _____
DATE HSE NOTIFIED: <small>(Click here)</small>	TIME: _____	COMPANY REP: _____
PROJECT MANAGER: _____		

Incident Classification (check all that apply)		Incident Severity	
<input type="checkbox"/> Injury (WCB Claim)	<input type="checkbox"/> Facility Contact	<input type="checkbox"/> Catastrophic	<input type="checkbox"/> Major <input type="checkbox"/> Moderate <input type="checkbox"/> Minor
<input type="checkbox"/> Motor Vehicle	<input type="checkbox"/> Equipment Damage	Injury Classification	
<input type="checkbox"/> Environmental	<input type="checkbox"/> Near Miss	<input type="checkbox"/> First Aid <input type="checkbox"/> Medical Aid <input type="checkbox"/> Modified Work <input type="checkbox"/> Lost Time <input type="checkbox"/> Fatality	
<input type="checkbox"/> Property Damage	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Notification	

Weather Conditions: <input type="checkbox"/> Bright <input type="checkbox"/> Dark <input type="checkbox"/> Dusk/Dawn <input type="checkbox"/> Foggy <input type="checkbox"/> Snowing <input type="checkbox"/> Raining <input type="checkbox"/> Icy <input type="checkbox"/> Muddy <input type="checkbox"/> Dusty	
Other: _____ Temperature: _____	

Personnel Classification:	
<input type="checkbox"/> Pidherney's Employee <input type="checkbox"/> Pidherney's Contractor Employee <input type="checkbox"/> Sub-Contractor <input type="checkbox"/> Third Party/Other	

Person(s) Involved			
Person Involved Name: _____	Occupation: _____	Person Involved Name: _____	Occupation: _____
Years of Experience in Occupation: _____	Phone Number: _____	Years of Experience in Occupation: _____	Phone Number: _____
Post Incident OSA Test Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No	Consecutive days worked: _____	Post Incident OSA Test Completed: <input type="checkbox"/> Yes <input type="checkbox"/> No	Consecutive days worked: _____
Performing regular duties at time of incident: <input type="checkbox"/> Yes <input type="checkbox"/> No	Hire or Re-Hire Date: <small>(Click here)</small>	Performing regular duties at time of incident: <input type="checkbox"/> Yes <input type="checkbox"/> No	Hire or Re-Hire Date: <small>(Click here)</small>
Witnesses			
Name and Company: _____	Phone Number: _____	Name and Company: _____	Phone Number: _____

Spills or Leaks		
Product Type: _____	Quantity Released: _____	Quantity Recovered: _____

External Agencies Notified:	
<input type="checkbox"/> OHSE <input type="checkbox"/> WCB <input type="checkbox"/> Alberta Transportation <input type="checkbox"/> Alberta First Call <input type="checkbox"/> Utility Owner <input type="checkbox"/> Third Party/Other: _____	

Emergency Assistance Obtained:	
<input type="checkbox"/> Police <input type="checkbox"/> Fire <input type="checkbox"/> Ambulance <input type="checkbox"/> Third Party/Other: _____	

Prepared By: _____	Reviewed By: _____	Approved By: _____	Signature: _____	Date: _____
Revised March 2018				



Personal Involvement/Witness Statement of Events



Personal Involvement / Witness Statement of Events


1. Briefly describe what happened (description of occurrence) <i>Describe who was involved, when and where the incident happened and how.</i>		
2. Why did it happen? (description of cause) <i>What actually caused the illness, injury or incident?</i>		
4. What did you do in response? What were the results? <i>List the actions taken and results.</i>		
3. What should be done to prevent a reoccurrence? Lessons learned? <i>Use descriptive constructive statements. (such as "worker should wear safety glasses" or "worker needs training" or "a ladder should have been used")</i>		
Name:	Date:	Time:
Signature:		

Reviewed March 2018 SMC






Near Miss Report

 <p>Pidherney's DRIVEN TO EXCEL FROM START TO FINISH 45 Gateway Blvd., Hwy 11 / RR 70 Box 540, Rocky Mountain House Alberta T4T 1A7</p>		Risk Ranking Circle One
SAFETY OPPORTUNITY CARD		HIGH
Circle One NEAR MISS HAZARD ID		MEDIUM
Reported by:		LSD/Job #:
Date:	Client / Owner:	
Location:		
Brief Description:		
<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
Follow up / Required Action Taken:		
<hr/> <hr/> <hr/> <hr/>		
Followed up / Action Taken by:		
Supervisor Sign-Off:		
Department: <input type="checkbox"/> Oilfield <input type="checkbox"/> Civil <input type="checkbox"/> Other _____		

Section 12 - Emergency Preparedness and Response

Emergency Response Plan (ERP)

JOB Number: _____



EMERGENCY RESPONSE PLAN

All personnel on site must be aware of and informed on the ERP

DATE IN EFFECT: Click here	
STARS # 1-888-888-4567: SITE ID # _____	
CLIENT: _____	CONTACT: _____ PHONE: _____
LOCATION: _____	
PRIMARY MUSTER LOCATION: _____	ALTERATE MUSTER LOCATION: _____
EVACUATION TO BE SIGNALLED BY: Aerosol Powered Horn and/or _____	

EMERGENCY RESPONSE TEAM	
COORDINATOR: _____	PHONE: _____
FIRST AIDERS: _____	

PIDHERNEY'S INC.	
MAIN OFFICE: _____	PHONE: _____
HSE: _____	PHONE: _____
FOREMAN: _____	PHONE: _____

NEAREST HOSPITAL: _____	
ADDRESS: _____	

EMERGENCY NUMBERS	
AEP: 1-800-222-6514 (Alberta Environment & Parks)	FISH AND WILDLIFE: 310-0000
310-FIRE (3473) (Forest Fires)	POISON CONTROL: 1-800-332-1414
OHS: 1-866-415-8690	CAN-UTEC: 1-888-226-8832
EMERGENCY SERVICES: 911	OTHER: _____

Evacuation procedures shall be initiated by the First Aid Attendant or the Site Superintendent only.

- ★ The person instigating the evacuation shall instruct that the aerosol-powered horn be sounded in three (3) sharp blasts, followed by a five (5) second delay, then three (3) more sharp blasts. This shall be repeated several times to ensure that all workers have heard the signal.
- ★ All workers are to shut down equipment and stop vehicles off roadway, leaving keys in the ignition.
- ★ All workers are to proceed to their assigned muster location unless it is unsafe to do so, then you are to assemble at the alternate muster location.
- ★ Roll call will be taken at each location and reported to Supervisor.
- ★ The First Aid Attendant, in conjunction with the Superintendent, shall determine if the site is safe to reoccupy following an evacuation. No one is to enter the site without authorization.

When working on Plant sites, their Evacuation and Signaling devices will take precedence as per their instructions.



Job Number _____

1.0 EMERGENCY RESPONSE PLAN

All Pidherney's supervisors shall ensure that sufficient resources and plans exist to deal with emergency situations at the job site. At a minimum, these resources should include:

1. Providing first aid to the injured.
2. Providing transportation to medical aid for the injured.
3. Communication to promptly contact outside agencies for assistance.

PROCEDURE

In the event of an injury on Pidherney's job sites the following procedure will apply:

1. Minor Injury

- The injured worker will immediately go to the first available first aid attendant, who will be identified through the orientation.
- The first aid attendant will assess and administer the necessary first aid and the worker will return to work.

2. Serious Injury

- If a serious injury has occurred on the job site, the first aid attendant upon being contacted will immediately go to the injured worker.
- The first aid attendant will assess the injury and take the appropriate action to ensure the welfare of the injured worker and if necessary arrange transportation to _____

3. Major Injury

- In the event of a major injury the first aid attendant shall initiate contacting the ambulance by directing another person to call for help. The first aid attendant must remain with the injured worker.
- To call the ambulance dial **911**.
- The caller will identify themselves as being an employee of Pidherney's and that an ambulance is requested immediately at the project site, located at _____
- He/she will also explain that an employee of Pidherney's will meet the ambulance at a predetermined meeting point. **THIS MEETING POINT FOR THE**

AMBULANCE WILL BE AT _____

Preventative Measure

- All personnel wear all required PPE required for tasks.
- Adhere to all appropriate Safe Work Procedures, Safe Operating Procedures and Industry Standards.
- All heavy equipment and all vehicles must carry a 20lb ABC fire extinguisher.
- All workers to be familiar with this ERP and proficient in the use of 2-way radio and cell phones

When working on live lines, then Equivalents and signaling devices will take precedence as per their operation.

Revised, February 2017

PAGE 2 OF 4

Section 13 - Inspections & Audits

Site Inspection



Site Safety Inspection Form

Foremen are required to conduct at minimum one site inspection per week for extended job sites that they are responsible for. Sites that run from three to seven days must have a minimum of one inspection carried out.

Job Number: _____ Date: _____ Foreman: _____

Conducted by: _____ Signature: _____

Inspections should be rated according to the degree of severity to set priority of action.

Classifications of Hazards:

- A – Requires immediate corrective action as it is an imminent hazard. Activity must be discontinued until hazard is corrected.
- B – Urgent situation, requires attention as soon as possible.
- C – Not an emergency but needs to be corrected without delay.
- O – Outstanding item from previous inspection.

✓ "good" – X "needs attention" – N/A "not applicable"	
First Aid Supplies. Unit #	Spill kits available? Trays under light plants and pumps?
Safety Vests in good Condition?	Fuel tank grounded?
Fire Extinguisher (tagged, pin, plastic tie)? Unit #	Stairs and 2 handrails leading into job van?
Overhead lines identified?	Ladder rungs in good condition?
Housekeeping	Ladders tied off and extended 1 metre above?
Traffic Control (TAS, Signage, Flagging)	Eye wash available? Unit #
Signage/Barricades	Environmental controls (silt fence, etc.)
PPE being worn as required?	Backup alarms on equipment?
Proper storage of materials?	Seat belts being worn in equipment?
Utilities marked?	Containers labelled?
Hoisting hooks have safety latches?	One Ton inspections completed as required?
Hydrovac holes marked/covered?	Equipment clean of garbage?
Winch/Tow Cables in good condition?	Power tools have guards in place?
Tools/materials secured when above workers?	Guards on machines and equipment to prevent accidental contact?
Other:	Rigging inspected, tags visible, inspection date due date valid?
	Other:


SAFETY INSPECTION ACTION LIST

Action Item	Class A, B, C, O	Target Date for Correction	Person Assigned	Actual Date for Correction	Initials of Person Verifying Completion

Foremen's Signature: _____



Office Inspections



Office Inspection Checklist

Office Inspection Checklist

Inspected by: _____ Signature: _____ Date: Click here

	YES	NO	N/A
Have deficiencies been corrected from last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY AND HAZARD INFORMATION			
Emergency Procedures are posted and legible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior Month Inspection is posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire extinguisher present and accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire extinguisher seal intact, date tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the fire extinguishers capable of fighting fires involving flammable liquids that are located in the area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First Aid Kit available and clearly marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First Aid record	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designated First Aider on site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSDS sheets available and current	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOUSEKEEPING			
Tripping Hazards are absent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All exits, and passageways are clear of obstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Step ladder available for out-of-reach items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floor free of slippery substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MACHINE SAFEGUARDS			
Faxes and copiers have appropriate safe guards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safeguards prevent workers' hands, arms and other body parts from making contact with dangerous moving parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safeguards have not been tampered with, altered or removed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WASHROOM FACILITIES			
Available for all genders in work place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In working condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clean & tidy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRICAL			
Appropriate electrical outlets available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical outlets not overloaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRAINING			
Workers are trained in and work procedures are available for the safe use of:			
Copiers / fax machines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Machines and equipment are operated in accordance with the manufacturer's recommendations and instructions and with WCB Regulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: _____			
PLEASE ENSURE THAT CORRECTIONS ARE MADE BY: _____			

Version 1.0/01/2018 D.M.C.

Shop & Parts Inspection Form

Original Parts Department Shop Inspection

INSPECTION ITEMS	SHOP			PARTS			WBAY			NOTES
	Y	N	I/A	Y	N	I/A	Y	N	I/A	
Emergencies & Fires										
1. Emergency Response Plan posted?										
2. Muster points identified?										
3. First Aid Kit seal broken? (inspection required if broken. Date on seal: _____ (inspection required yearly if seal is not broken.)										
4. Are signs present for emergency safety equipment (eyewash, exits, first aid) - are safety meetings posted?										
5. Emergency evacuation maps posted on every exit?										
6. All exits and paths free of obstruction?										
7. Fire extinguishers present and inspected monthly/annually?										
8. Oil rags kept in a metal bin and removed from the shop when full?										
9. Flammable materials in excess of 10 gallons stored in appropriate containers and storage cabinets?										
Housekeeping & Ventilation										
1. Work stations clean & orderly, floors clean, etc.										
2. Perimeter of building clear of slips/trips/falls and debris?										
2. Cabinets & shelves secured & anchored?										
3. Machines secured & anchored?										
4. Light fixtures adequate & functioning properly?										
5. Is the ventilation system adequate for the work being performed, filters last changed?										
Electrical Safety										
1. Plugs, cords & panels enclosed, clearly identified and free from splices with insulation in good condition?										
3. Do all extension cords have grounding conductors?										
4. Cords secured so they do not run across pathways, under doors or walls?										
5. Are the electrical outlets overloaded?										
INSPECTION ITEMS										
	Y	N	I/A	Y	N	I/A	Y	N	I/A	
Mechanical Safety & Tools										
1. Is defective equipment reported, labeled & repaired?										
2. Do all machines have guards to protect against points of operation, nip points, rotating parts, flying chips, sparks, etc.										
3. Are start, stop, emergency & other operating controls within the operators reach?										
4. Machines regularly cleaned & maintained?										
5. All electrical hand tools in good condition?										
6. Tools free from cracks & broken parts?										
7. Ladders in good condition: free from dents, grease, dirt, etc.?										
Welding										
1. Is only approved welding equipment used?										
2. Cylinders dent free, secured upright with a chain & valve protector in place, hoses free from cracks, and labelled correctly?										
3. Are the welding screens in good condition?										
Storage, Hazardous Materials & Waste										
1. Storage racks free from sagging?										
2. Combustibles & chemicals kept away from open flame/heat?										
3. Has current chemical inventory list up to date and SDS available to Staff?										
4. Is chemical waste properly separated & stored?										
5. Have the oil tanks been cleaned out?										



Yard Inspection Checklist

Yard Inspection Checklist

Yard Inspection Checklist

Inspected by: _____ Signature: _____ Date: 03/06/2018

	YES	NO	N/A
Have deficiencies been corrected from last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EMERGENCY AND HAZARD INFORMATION			
Electrical Panels in good order and no damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior Month Inspection is posted in Shop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire extinguisher present and accessible in Quonset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire extinguisher seal intact: date tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency ERP posted in Quonset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the fire extinguishers capable of fighting fires involving flammable liquids that are located in the area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First Aid Kit available and clearly marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eyewash station available and clearly marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HOUSEKEEPING			
Tripping Hazards are absent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All exits and gates are clear of obstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Garbage behind concrete bullocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quonset floor free of slippery substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete bullocks straight and at least 2Ft from fence			
Any garbage/parts or tools around job vans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Empty shop containers/brake drums and pads in orderly fashion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safeguards have not been tampered with, altered or removed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WASHROOM FACILITIES			
Available for all genders in work place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In working condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clean & tidy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MACHINE SAFEGUARDS			
Signboards and trailers closed and secure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all trailers blocked and Secure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safeguards have not been tampered with, altered or removed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All truck parked in appropriate stalls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling station has equipped spill kit available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fueling station equipped with tire blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRICAL			
Appropriate electrical outlets available for trucks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical outlets not overloaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRAINING			
Workers are trained in and work procedures are available for the safe use of:			
Truck and trailer securement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe backing and parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SECURITY			
Security Camera's and gates in working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gate controls/latches have no damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera's up and working	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fence in good condition with no damage or down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: _____			
PLEASE ENSURE THAT CORRECTIONS ARE MADE BY: _____			



Environmental Construction Operations Plan (ECO Plan) – booklet



Pidherney's
PIDERNEY'S INC.
45 Gateway Blvd., Hwy 11 / RR 70
Box 940, Rocky Mountain House, AB
T4T 1A7 403-945-3072

**ENVIRONMENTAL CONSTRUCTION
OPERATIONS PLAN (ECO PLAN)**

#

Client: _____ Date: _____
Job Number: _____ Weather: _____
Job Location: _____ Forecast: _____

Staging Areas	Check If Required	Date Inspected	Location	General Condition	Maintenance Required/ Work To Be Done	Date Repairs Completed
Garbage Containers				poor fair good		
House Keeping				poor fair good		
Fueling Areas				poor fair good		
Fire Extinguishers				poor fair good		
MSDS				poor fair good		
Spill Kits				poor fair good		
Erosion & Sediment Control	Check If Required	Date Inspected	Location	General Condition	Maintenance Required/ Work To Be Done	Date Repairs Completed
Silt Fence				poor fair good		
Berms				poor fair good		
Straw Bale Barrier				poor fair good		
Rollled Erosion Control				poor fair good		
Riprap Armoring				poor fair good		
Donuts at Manholes/Catch Basins				poor fair good		
Seeding				poor fair good		
Top Soiling				poor fair good		
Planting Trees and Shrubs				poor fair good		
Limit Land Disturbed				poor fair good		
Construction Activities	Check If Required	Date Inspected	Location	General Condition	Maintenance Required/ Work To Be Done	Date Repairs Completed
Culverts				poor fair good		
Silt Fence				poor fair good		
Bridge Files				poor fair good		
Silt Fence				poor fair good		
Detours				poor fair good		
Stripping Stock Piles				poor fair good		
Excavations				poor fair good		
Clearing				poor fair good		
Dust Control				poor fair good		
Dewatering				poor fair good		
Fish Pools				poor fair good		
Assessments & Inspections	Date Inspected	Location		Date Completed	Notes	
Borrow Pit Pre			Required N/A			
Borrow Pit Post			Required N/A			
Excess Erosion			Required N/A			
Migratory Bird			Required N/A			
Fish Salvage			Required N/A			
Turbidity Monitoring			Required N/A			
Burning of Trees			Required N/A			
Control of Noxious Weeds			Required N/A			

All Permits in Place ☐ Yes ☐ No


Additional Notes: _____

Name of Checker: _____ Signature of Checker: _____
WHITE - OFFICE CANARY - CLIENT PINK - JOB SITE



Section 17 - Operators & Equipment

Operator's Daily Maintenance Report

 **Pidherney's**
DRIVEN TO EXCEL FROM START TO FINISH

PIDHERNEY'S INC.
#5 Gateway Blvd., Hwy 11 / RR 70
Box 940, Rocky Mountain House, AB
T4T 1A7 403-845-3072

OPERATOR'S DAILY MAINTENANCE REPORT

DATE

COMPANY

UNIT # MACHINE TYPE

HOUR METER OPERATOR

ON BOARD SAFETY EQUIPMENT:	Satisfactory	Requires Attention
Safety Lockout Devices	<input type="checkbox"/>	<input type="checkbox"/>
Seat Belt	<input type="checkbox"/>	<input type="checkbox"/>
Fire Extinguisher (If applicable)	<input type="checkbox"/>	<input type="checkbox"/>
Spill Kit (If applicable)	<input type="checkbox"/>	<input type="checkbox"/>
Buggy Whip (If applicable)	<input type="checkbox"/>	<input type="checkbox"/>
DAILY MAINTENANCE:		
Oil & Fluids	<input type="checkbox"/>	<input type="checkbox"/>
Grease	<input type="checkbox"/>	<input type="checkbox"/>
Leaks	<input type="checkbox"/>	<input type="checkbox"/>
Cracks	<input type="checkbox"/>	<input type="checkbox"/>
Cutting Edges	<input type="checkbox"/>	<input type="checkbox"/>
Radiator Level	<input type="checkbox"/>	<input type="checkbox"/>
Steering	<input type="checkbox"/>	<input type="checkbox"/>
Brakes	<input type="checkbox"/>	<input type="checkbox"/>
Lights	<input type="checkbox"/>	<input type="checkbox"/>
Backup Alarm	<input type="checkbox"/>	<input type="checkbox"/>
Windows	<input type="checkbox"/>	<input type="checkbox"/>
Mirrors	<input type="checkbox"/>	<input type="checkbox"/>
Tires / Tracks	<input type="checkbox"/>	<input type="checkbox"/>

ADDITIONAL COMMENTS


.....

☐ ALL REPAIRS HAVE BEEN MADE

MECHANIC (If attention required) FOREMAN (If attention required)

Section 18 - Topic Specific - Confined and Restricted Space

Confined Space (Non Routine) Hazard Assessment and Work Sheet



Confined Space

NON-ROUTINE CONFINED SPACE CODE OF PRACTICE HAZARD ASSESSMENT & WORK SHEET

CONFINED SPACE HAZARD ASSESSMENT

Location of Work: _____

Description of tasks to be completed: _____

Entry Date: Various



Atmospheric Hazards	Yes	No
Explosive atmosphere (gases, vapors, fine dusts)	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen deficiency	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen enrichment	<input type="checkbox"/>	<input type="checkbox"/>
Toxic gases or vapors	<input type="checkbox"/>	<input type="checkbox"/>
Dust, mists, fumes	<input type="checkbox"/>	<input type="checkbox"/>
Smoke	<input type="checkbox"/>	<input type="checkbox"/>
Biological agents	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>

If yes to 1 or more of the above, specify atmospheric hazards: _____

Safety Hazards	Yes	No
Entry/Exit		
▪ Small/narrow openings	<input type="checkbox"/>	<input type="checkbox"/>
▪ Steep openings	<input type="checkbox"/>	<input type="checkbox"/>
▪ Angled openings	<input type="checkbox"/>	<input type="checkbox"/>
▪ Exit into traffic or machinery	<input type="checkbox"/>	<input type="checkbox"/>
Machinery/mechanical equipment	<input type="checkbox"/>	<input type="checkbox"/>
Piping and distribution systems	<input type="checkbox"/>	<input type="checkbox"/>
Residual chemicals or materials	<input type="checkbox"/>	<input type="checkbox"/>
Pressure systems	<input type="checkbox"/>	<input type="checkbox"/>
Electrical hazards	<input type="checkbox"/>	<input type="checkbox"/>
Poor visibility	<input type="checkbox"/>	<input type="checkbox"/>
Physical obstacles	<input type="checkbox"/>	<input type="checkbox"/>
Walking/working surfaces	<input type="checkbox"/>	<input type="checkbox"/>
Temperature Extremes	<input type="checkbox"/>	<input type="checkbox"/>



Confined Space/Restricted Space Checklist & Confined Space Permit

CONFINED SPACE/RESTRICTED SPACE CHECKLIST & CONFINED SPACE PERMIT

In the event of an emergency Call 9-1-1 and Notify Pidherney's Safety Department:

Section 1 – Confined/Restricted Space Information

Date Permit issued:	Is this a confined space? Yes <input type="checkbox"/> No <input type="checkbox"/> (If no, page 2 is not required)
Job #:	Directions to Site:
Description of space:	
Description of work to be performed:	
Material or Chemicals located and/ or brought into the confined spaces	
MSDS Yes <input type="checkbox"/> No <input type="checkbox"/>	MSDS Yes <input type="checkbox"/> No <input type="checkbox"/>
Air monitoring device information	
Make/ Model:	Date of Calibration: Bump Test: Yes <input type="checkbox"/>
Pre-entry Atmospheric monitoring results. Remember to test at different levels (e.g. low, medium, and high) and record worst case readings	
Oxygen (19.5%-23%) ____%	Carbon monoxide (< 25PPM) ____PPM
Flammables (<10% of LEL) ____%	Other: _____

Section 2 – Hazard Assessment

Other potential hazards	Controls needed for hazards
N/A Yes	N/A Yes
<input type="checkbox"/> Chemical exposures	<input type="checkbox"/> Barricades/Signs
<input type="checkbox"/> Corrosive Substances	<input type="checkbox"/> Notification of personnel of service disruption
<input type="checkbox"/> Dusts, Mists, Fumes	<input type="checkbox"/> Lock out/Tag out
<input type="checkbox"/> Explosive Atmosphere (gas, vapor, fine dust)	<input type="checkbox"/> Double Block and Bleed
<input type="checkbox"/> O ₂ Deficient /O ₂ Enriched	<input type="checkbox"/> Lighting
<input type="checkbox"/> Toxic Gases or Vapors	<input type="checkbox"/> Air Purifying Respirator
<input type="checkbox"/> Temperature Extremes	<input type="checkbox"/> SABA/SCBA
<input type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Hearing Protection
<input type="checkbox"/> Simultaneous operations in area.	<input type="checkbox"/> Mechanical Fresh Air Ventilation
<input type="checkbox"/> Limited Access/Egress	<input type="checkbox"/> Natural Ventilation
<input type="checkbox"/> Noise/Vibration	<input type="checkbox"/> Communication System in Place
<input type="checkbox"/> Structural Collapse	<input type="checkbox"/> Protective Clothing
<input type="checkbox"/> Small Internal Size	<input type="checkbox"/> Safety Glasses/Face Shield
<input type="checkbox"/> Piping and Distribution Systems	<input type="checkbox"/> Hard Hat/Head Protection
<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Ground Fault Interrupter (GFI)
<input type="checkbox"/> Radiation (ionizing or non-ionizing)	<input type="checkbox"/> Harness/Life Lines/Tripod/Davit Arm
<input type="checkbox"/> Mechanical Equipment	<input type="checkbox"/> Fire Extinguisher Type: _____
<input type="checkbox"/> Pressurized Equipment	<input type="checkbox"/> Intrinsically Safe Flashlight
<input type="checkbox"/> Engulfment	<input type="checkbox"/> Non Sparking Tools
<input type="checkbox"/> Hazards Biohazards	<input type="checkbox"/> Eye Wash/Emergency Shower
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Communicate hazards & work process with all Personnel performing SIMOPS
<input type="checkbox"/> Other: _____	<input type="checkbox"/> Other Permits Required
	<input type="checkbox"/> JSA/Pre-Job Meeting (JSA to include rescue plan)
	<input type="checkbox"/> ERP in place
	<input type="checkbox"/> Other: _____

Additional Information:

Page 3 of 5

Revised March 2011

Harness Inspection Form



Harness Inspection Form

Print out a harness inspection form for each harness used in confined space entry.

If inspection or operation reveals defective condition or has been subjected to a fall arrest or impact force, remove from service immediately and contact the Safety Department.

Webbing – Grasp the webbing with your hands and bend the webbing, checking both side. This creates surface tension making the damaged fibers or cuts easier to see. Webbing damage may not show up through a sight (visual) inspection only – manual (touch) the harness is equally important.

SITE INFORMATION		
Foreman: _____	Job Trailer: _____	
Inspector: _____	Inspector Signature: _____	
Date of Inspection: _____		
Harness Model: _____	Manufacturer Date: _____	
Serial Number: _____	Lot Number: _____	
GENERAL FACTORS	ACCEPTED / REJECTED	SUPPORTIVE DETAILS OR COMMENTS
1.) Hardware: (includes D-rings, buckles, keepers and back pads) inspect for damage, distortion, sharp edges, butts, cracks and corrosion.	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	
2.) Webbing: inspect for cuts, burns, tears, abrasion, frays, excessive soiling and discoloration.	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	
3.) Stitching: inspect for pulled or cut stitches.	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	
4.) Labels: inspect, make certain all labels are securely held in place and legible.	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	
5) Other:	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	
OVERALL DISPOSITION	<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REJECTED	

Revised March 2018

Page 4 of 5

Section 18 - Topic Specific - Cranes, Hoists, and Lifting Devices

Critical Lift Plan


Critical Lift Plan


Job:

CRITICAL LIFT PLAN	
Location:	Date of Lift:
Load Description:	Supervisor:
	Signature
Operator:	Who is running the lift:
LOAD	EQUIPMENT
Wt. of Load:	Type:
Total Wt. of all combined:	Maximum Capacity:
Source of Load Wt. Information:	Maximum Wt. to be lifted:
	Depth of Excavation:
Load Angle Factor Calculation:	Distance from the Top of Ditch:
	Load Chart Rating - If Load Chart does not include Bucket, add 5000lbs):
HOOK	PRE-LIFT CHECKLIST (complete prior to lift)
Hook Type:	<input type="checkbox"/> Equipment Inspected <input type="checkbox"/> Wind/Temp _____
Hook Rating:	<input type="checkbox"/> Rigging Inspected <input type="checkbox"/> Rigger _____
RIGGING	<input type="checkbox"/> Height of Lift <input type="checkbox"/> JSA Completed/Signed
# of Slings:	<input type="checkbox"/> Signal System <input type="checkbox"/> Lifting Points Identified
Sling Type:	<input type="checkbox"/> Tag Lines <input type="checkbox"/> Area Isolated for Lift
Sling Assembly Rated Capacity:	CONTINGENCY PLAN (In Case of Fail)
Shackles Sizes:	
Shackles Rate Capacity:	
Other:	
Other:	
Other:	
OPERATING AREA	EMERGENCY PLAN
Obstacles/Obstructions:	
Other:	
CONSIDERATIONS	
If lift exceeds 75% of Machine Capacity. Additional Special Instructions/Restrictions must be documents.	
Multiple Machines require a separate plan.	
Any changes in the Machine Configuration, Load Placement, Rigging, Lifting Scheme, or Calculation may require a new Critical Lift Plan to be developed.	
When Lifting with Excavator(s), always lift over front idlers unless Load Chart shows center side can handle weight.	
Wire Rope Sling & Hook Inspection Form must be completed prior to use.	
SIGNATURES	DATE

Note: Use back for additional notes.

Updated March 2017, SMC/Revised March 2018

Crane Operator Daily Checklist



Pidherney's
DRIVEN TO EXCEL FROM START TO FINISH

Crane Operator Daily Checklist

Location:		Make:										Capacity:																				
Serial #:	Model #:	Type:										Volts:																				
Month	Year	DATE																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
The following applicable items shall be checked daily, other items may apply:																																
1. Leverage - oil, hydraulic, or air																																
2. Test Run & Observe - E-stop, start:																																
- Pendant or controller, labelling																																
- Speeds & directions of all motions																																
- Brakes of all motions																																
3. Upper Limit - test with no load																																
Lower Limit - test, 5 wraps on drum																																
4. Reeving & Spooling - ropes & chains																																
5. Hoist Rope - crushing, kinking																																
- Broken wires, kinks, end connections																																
Hoist Chain - wear, twist, stretch, joints																																
6. Load Hook - cracks, latch, 360 swivel																																
- Throat opening, twist, saddle wear																																
7. Hook Block - damage, capacity rating																																
Sheaves - wear, cracks, corrugations																																
8. Load Attachments - capacity ratings																																
Chain Wear - twist, distorted link, stretch																																
Sling - crushing, kinking, broken wires, tears																																
Other -																																
Operator Initials:																																
COMMENTS:																																


Operator's Condition Codes: V = Acceptable, X = Defective, REPORT AT ONCE.

Note: Records must be kept in regards to Crane Usage as per ISO - 12482-1

Created: February 2017, EACD/Reviewed March 2018

Sling & Hook Inspection Form

JOB Number:



Sling & Hook Inspection Form

Sling and Hook Inspection (Wire Rope & Chain)

A daily sling inspection prior to use shall be carried out by a competent person.

RESPONSIBILITIES:

1. To ensure hooks and slings are used according to the capacity and intended application.
2. Must be familiar with standard types and capacities of hooks and slings.
3. Never tie a sling in a knot, or alter it in any way.
4. If hooks are painted, visual inspection should take the coating into consideration. Surface variations can disclose evidence of heavy or severe service. The surface condition may call for stripping the paint in such instances.
4. Always inspect prior to each use and **Never** use if in questionable condition.
5. A wire rope sling or hook shall be removed from service if conditions such as the following are present:

SITE INFORMATION		
Client / Project:	Location:	
Foreman:	Operator/Inspector:	
Foreman Signature:	Inspector Signature:	
Date of Inspection:		
SLING INFORMATION		
Sling Manufacturer:	Serial Number:	
Working Load Limit:	Sling Type:	
Expiry Date:	Hook Manufacturer:	
CHECK ALL ITEMS		
	YES	NO
Wire Rope Sling		
1. Inspection tag due date valid?	<input type="checkbox"/>	<input type="checkbox"/>
2. Manufacturing label missing or illegible?	<input type="checkbox"/>	<input type="checkbox"/>
3. Broken Wires: <ul style="list-style-type: none"> • For strand-laid and single-part slings, ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in one rope lay. • For cable-laid slings, 20 broken wires per lay. • For six-part braided slings, 20 broken wires per braid. • For eight-part braided slings, 40 broken wires per braid. 	<input type="checkbox"/>	<input type="checkbox"/>
4. Severe localized abrasion or scraping.	<input type="checkbox"/>	<input type="checkbox"/>
5. Kinking, crushing, bird caging, or any other damage resulting in damage to the rope structure.	<input type="checkbox"/>	<input type="checkbox"/>
6. Evidence of heat damage.	<input type="checkbox"/>	<input type="checkbox"/>
7. End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.	<input type="checkbox"/>	<input type="checkbox"/>
8. Severe corrosion of the rope, end attachments, or fittings.	<input type="checkbox"/>	<input type="checkbox"/>
9. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.	<input type="checkbox"/>	<input type="checkbox"/>
Chain Sling - Clean chain prior to inspection, to more easily see damage or defects.		
10. Link-by-link inspection: <ul style="list-style-type: none"> • Extensive wear • Twisted, bent, gouged, nicked, worn or elongated links • Cracks in the weld area or any portion of the link. Traverse marking is the most dangerous. 	<input type="checkbox"/>	<input type="checkbox"/>
11. Identification grade visible on chain.	<input type="checkbox"/>	<input type="checkbox"/>
Hook		
12. Deformation - Any visibly apparent bend or twist from the plane of the unbent hook.	<input type="checkbox"/>	<input type="checkbox"/>
13. Throat opening - Any distortion causing an increase in throat opening exceeding 5 percent, not to exceed 1/4 inch. (or as recommended by the manufacturer).	<input type="checkbox"/>	<input type="checkbox"/>
14. Wear - Any wear exceeding 10 percent (or as recommended by the manufacturer) of the original section dimension of the hook or its load pin.	<input type="checkbox"/>	<input type="checkbox"/>
15. Cracks.	<input type="checkbox"/>	<input type="checkbox"/>
16. Latch - inoperative because of wear or deformation or fails to fully bridge the throat opening.	<input type="checkbox"/>	<input type="checkbox"/>
17. Evidence of heat damage.	<input type="checkbox"/>	<input type="checkbox"/>
18. Welds - Evidence of fractures or cracks.	<input type="checkbox"/>	<input type="checkbox"/>
19. Plate - Evidence of wear, bend/twist, hook is not sitting flush on plate.	<input type="checkbox"/>	<input type="checkbox"/>
NOTES - Use other side for notes		

Section 18 - Topic Specific - Excavation & Tunneling



JOB Number: _____

Excavation Safety Hazard Assessment

Instructions

The excavation competent person must complete this prior to initial entry. This hazard assessment will be completed for each stage of the job. This must be reviewed by all employees and posted. Hazard assessment must be updated when conditions or hazards change. This Hazard Assessment may also be used to record conditions and observations at other times.

Project Location: _____ **Stationing of Trench:** _____

Inspection Certification

I am an excavation competent person and I completed the following inspection

Date: _____ Time: _____

Name (print): _____ Phone: _____

Signature: _____

Inspection Purpose:

- ☐ Prior to initial entry.
☐ Routine inspection during work
☐ Change in condition/hazards present

Describe: _____

Current Conditions	Description or Measure	Comments/Observations	N/A
Water accumulation			<input type="checkbox"/>
Traffic conditions			<input type="checkbox"/>
Spoil location			
Depth/Width			
Other characteristics			<input type="checkbox"/>
Access/egress (i.e. ladder every 8m & tied off)			
Changing conditions/change of plan			<input type="checkbox"/>
Site Survey		N/A	Yes
The excavation is within the original scope of work		<input type="checkbox"/>	<input type="checkbox"/>
Utility survey markings are complete, accurate, and legible/ Utility hand-exposed?		<input type="checkbox"/>	<input type="checkbox"/>
Underground utilities that have been exposed have been braced and marked?		<input type="checkbox"/>	<input type="checkbox"/>
Storms drains are adequately protected from sediment		<input type="checkbox"/>	<input type="checkbox"/>
Stock piles/excavated materials are at least 1m from excavation edge		<input type="checkbox"/>	<input type="checkbox"/>

Protective Systems

- ☐ Cutting Back Walls - degree of slope _____
☐ Protective Structure (if yes describe) _____ ☐ Tabulated data on site?
☐ Protective Structure inspected? Meets manufacturer's specifications?
☐ Slings/Rigging in good working condition, tags present and valid?
☐ Benching (Note: Benching is limited to 6 metres).

Soil Characteristics

- ☐ Previously excavated ☐ Firm ☐ Soft ☐ Layered ☐ Moist ☐ Dry ☐ Saturated ☐ Fractured ☐ Clay ☐ Cemented ☐ Granular

Soil Classification

- ☐ Hard & Compact ☐ Likely to crack or crumble ☐ Soft, sandy, or loose soil

Section 18 - Topic Specific - Gas Detection

Bump Test Log

[illegible]

Calibration and Gas Response Report

[illegible]

[illegible]

Section 18 - Topic Specific - Ground Disturbance

Ground Disturbance Permit



JOB Number:

Ground Disturbance Permit

GROUND DISTURBANCE CHECKLIST/PERMIT

Date Permit Issued:		Date Permit Expires:	
Client:		Location:	
Time/Date of 1 st call:		Locate Ticket #:	
Scope of Work:			
Things to Consider			
If any of the items are answered "NO", then proceeding may contravene company policy, and may result in injury or personnel, damage to equipment, or environment. Supervisor approval and documentation of decision is required.			
PLANNING		ONSITE	
Has the One Call been notified? Non-members been notified? Private locates required?		Did you conduct a Safety/Tailgate Meeting with Crew? Reviewed all One Call and Private Locates with Crew?	
Have you reviewed the survey drawing for any ground disturbance/access route?		Did you review procedures and ERP?	
Have you received Facility crossing agreements? Are all Crossing notifications adhered to prior to entering work area?		Has a visual inspection of work area/site been completed? Have all buried facilities in work zone area been daylighted?	
Did you review the dig area with Utility Representatives?		Are valid locates on site? Has the Excavation Operator received a copy?	
Are all Facility Owners 30 metres within the dig area been notified?		Do you require additional Safety measures, i.e. Snow fence, barriers, signage, etc.?	
If available have As-builts been reviewed?		Have you identified overhead and all buried facilities?	
Section 1 - General		Yes	No
Is the excavation or trench considered a confined or restricted space? If yes, Pidherney's Confined Space/Restricted Space Program must be adhered to.			
Is there a potential for cave-in? (if YES, excavation must be sloped, shored, or shielded)			
Is sloping used as a protective system?			
Is soil classification identified "Hard and compact" (30° slope)			
"Likely to crack or crumble" (45° slope)			
"Soft, sandy, or loose soil" (45° slope from bottom)			
Other soil types identified for which equipment is working in (i.e. muskeg)			
Is a shoring system used as a protective measure?			
Is shielding system (trench box/cage) used as a protective measure? It tabulated data on site? Is rigging gear inspected and valid?			
Are there any signs of new ground disturbances that may have occurred since locate was done? If yes, a re-locate MUST be done.			
Section 2 - Underground Utilities - Locates			
Utility locates reviewed?			
Have all buried pipelines, powerline, or utilities on locates/drawings been clearly marked?			
Is a hardcopy of the utility locates onsite? Copy given to Excavation Operator?			
Are utility markings clear and visible?			
If the locate sheet requires you to call the Utility for clearance prior to digging, has this been done? N/A = no requirement to call on locate sheet			N/A



JOB Number: _____

Ground Disturbance Permit

Requirements for Hand Exposing/Hydrovac			
Ground Disturber(s) and Hydrovac Operators have Ground Disturbance Training?			N/A
Is the excavation operation within 1m of a utility? (or within the specified boundary limit as identified in the locate sheet)?			
Exposed utilities as-built for depth and location?			
If "YES" will daylighting (hand expose/hydrovac) be performed to expose the utility in accordance with applicable regulations?			
Additional controls required for supporting daylighted utility?			
If any of these requirements cannot be met, STOP and contact your Supervisor			
Section 3 - Above Ground Utilities - Poles, Anchors, Guy Wires	Yes	No	
Are you required to dig within 3m of a permanent or temporary: Pole, Guy Wire or Anchor? (if yes, contact Utility Owner first, written approval must be given to proceed).			N/A
Are you working within the vicinity of overhead power? (any part of the equipment is capable of encroaching on the minimum clearance) Refer to minimum clearance requirements (Pidherney's Overhead Power Line Program) for given line voltage.			Line Voltage: _____
If "YES", have the following additional requirements been met?			
Hazard/precautions communicated and documented?			
Warning signs (overhead signs, utility crossing signs, etc.) positioned in vicinity to the hazard?			
Goal posts installed for equipment ROW?			
Qualified DESIGNATED signal person (Spotter) is on duty?			
If you must work within specified minimum clearance distance of an overhead power line, STOP and contact Superintendent (Utility Company must be contacted for further instruction and written approval)			
POST CONSTRUCTION	Yes	No	N/A
Have you given the Owner 24 hours' notice for backfill inspection?			
Have Owners inspected facility before backfilling and given the all clear?			
Permit Completed By: _____ Signature: _____			
Site Supervisor: _____ Signature: _____			
Lead Excavator Op.: _____ Signature: _____			
Facility Owner:	Contact:	Ph#:	
Facility Owner:	Contact:	Ph#:	
Facility Owner:	Contact:	Ph#:	
REVIEWED BY: (Print Name)	POSITION	SIGNATURE	
Valid for the scope of work up to a maximum of 7 working days.			



Section 18 - Topic Specific - Working at Heights

Fall Protection Plan

FALL PROTECTION PLAN

INFORMATION

Date Permit Issued:

Location:

Description of Fall Hazard:

Description of work to be performed:

Description to handle tools, equipment and materials that are required to be used at height:

METHODS OF FALL PROTECTION

Yes

<input type="checkbox"/> Guard Rail System	<input type="checkbox"/> Safety Net
<input type="checkbox"/> Safety Watch System	<input type="checkbox"/> Scaffold
<input type="checkbox"/> Fall arrest system	<input type="checkbox"/> Life line
<input type="checkbox"/> Fall restraint system	<input type="checkbox"/> Scissor lift
<input type="checkbox"/> Positioning device system	<input type="checkbox"/> Boom lift
<input type="checkbox"/> Forklift w/man basket	
<input type="checkbox"/> Vertical life line & rope grab	
<input type="checkbox"/> Other:	

Describe procedures for assembly, maintenance, and inspection of the fall protection required. Including anchors to be used:

CLEARANCE REQUIREMENT

Calculating Clearance Requirement

Add A + B + C + D + E + F + G + H + I + J + K + L + M + N + O + P + Q + R + S + T + U + V + W + X + Y + Z = _____

Clearance requirement = _____

Distance to surface below = _____

Clearance requirement must be less than the distance from the worker to the surface below.

Note: If your clearance distance is greater than the distance to the next surface below, you are not in compliance with the clearance requirement.

You should calculate free fall distance.

Calculating Free Fall Distance

This must not be greater than 2 ft. If it is, it must be greater than the permitted free fall distance.

Calculate by adding:

A: Height of structure to which worker is attached

B: Height of structure to which worker is attached

C: Height of structure to which worker is attached

D: Height of structure to which worker is attached

E: Height of structure to which worker is attached

F: Height of structure to which worker is attached

G: Height of structure to which worker is attached

H: Height of structure to which worker is attached

I: Height of structure to which worker is attached

J: Height of structure to which worker is attached

K: Height of structure to which worker is attached

L: Height of structure to which worker is attached

M: Height of structure to which worker is attached

N: Height of structure to which worker is attached

O: Height of structure to which worker is attached

P: Height of structure to which worker is attached

Q: Height of structure to which worker is attached

Method of overhead protection for workers who may be in, pass through work area:


Pidherney's Safety Manual

Fall Protection Plan

Rescue Procedure including first aid attendant:		
Post authorized permit at job site until completed.		
Supervisor: I certify that all of the requirements of the Pidemey's Fall Protection program have been met. I have ensured that all applicable hazards have been identified and sufficiently controlled. A pre-job meeting/JSA has been completed prior to entry.		
Permit authorization		Time Authorized Between (What time is the permit authorized between)
Name:	Signature:	Start: ____ AM ____ PM End: ____ AM ____ PM
Workers Involved		Trained in Fall Protection (if not trained, worker cannot use fall protection)
Name:	Signature:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Name:	Signature:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Name:	Signature:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Name:	Signature:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Harness Inspection Form

JOB #/Date:



Harness Inspection Form

Harness Inspection Form

A formal inspection to be completed monthly, ensure Harness is clean prior to completing inspection.

If inspection or operation reveals defective condition or has been subjected to a fall arrest or impact force, remove from service immediately and contact the Safety Department.

Webbing - Grasp the webbing with your hands and bend the webbing, checking both side. this creates surface tension making the damaged fibers or cuts easier to see. Webbing damage may not show up through a sight (visual) inspection only - manual (touch) the harness is equally important.

SITE INFORMATION			
Foreman:	Job Trailer		
Inspector:	Inspector Signature:		
Date of Inspection:			
Harness Model:	Manufacturer Date:		
Serial Number:	Lot Number:		
General Factors	Accepted	Rejected	Supportive Details or Comments
1. Hardware: (includes D-rings, buckles, keepers and back pads). Inspect for damage, distortion, sharp edges, burrs, cracks, and corrosion.	<input type="checkbox"/>	<input type="checkbox"/>	
2. Webbing: Inspect for cuts, burns, tears, abrasion, frays, excessive soiling, and discoloration.	<input type="checkbox"/>	<input type="checkbox"/>	
3. Stitching: Inspect for pulled or cut stitches.	<input type="checkbox"/>	<input type="checkbox"/>	
4. Labels: Inspect, make certain all labels are securely held in place and legible.	<input type="checkbox"/>	<input type="checkbox"/>	
5. Impact Indicator: Stitch intact, not deployed.	<input type="checkbox"/>	<input type="checkbox"/>	
6. Other:	<input type="checkbox"/>	<input type="checkbox"/>	
7. Overall: Disposition	<input type="checkbox"/>	<input type="checkbox"/>	
NOTES:			