



1

# COMPANY SAFETY POLICY AND ASSIGNMENT OF RESPONSIBILITIES



## STOP WORK AUTHORITY POLICY

It is the Health, Safety and Environment (HSE) policy of Milepost Manufacturing Ltd. to maintain a safe and secure work environment against any risk or exposure to personal harm, property damage or adverse effects to the environment.

As such, it is the duty and right of everyone employed by Milepost Manufacturing Ltd. to exercise a **STOP WORK** policy whenever any employee, members of the public, or the local environment is at risk. Management supports the decision of its employees in the diligent execution of this policy.

- **STOP WORK** shall be applied if any situation arises due to an unsafe action or behavior or omission or non-action of any party involved in the operation, and if such situation were permitted to continue, may potentially lead to the occurrence of an untoward incident.
- Any person regardless of position, seniority or discipline has the right and duty to apply the **STOP WORK** policy if in his/her opinion or judgement, such activity is deemed to be a potential incident.
- There shall be no blame or fault put on any employee call for a **STOP WORK** order even if, upon investigation, the **STOP WORK** was deemed unnecessary. The **STOP WORK** order must be applied in good faith.
- Timing is a critical factor. There should not be any delay in calling for a **STOP WORK** order if the need arises.

Work that has ceased due to a **STOP WORK** order shall not be resumed until all safety aspects are cleared to the satisfaction of the employee who initiated the **STOP WORK** order or the employee responsible for the **STOP WORK** order to be initiated, in the first place.

Managers Signature: \_\_\_\_\_

A handwritten signature in black ink, consisting of stylized, overlapping loops and strokes, is written over a horizontal line.

Date: January 1, 2018



## MANAGEMENT OF CHANGE POLICY

In the event of any internal changes (such as staffing, new processes, working procedures, organizational structures or acquisitions) and of external changes (amendments of national laws and regulations, organizational mergers, or OHS developments) whether permanent or temporary, procedures will be evaluated and appropriate preventative steps taken prior to the introduction of changes.

Workplace hazard identification and risk assessment will be carried out prior to any modification or introduction of new work methods, materials or processes or machinery, to ensure that health, safety and environmental, and / or quality standards will be maintained. This review will involve all workers and subcontractors affected and health and safety representative.

A pre-start up review including all parties will be completed to ensure that all requirements identified have been addressed, and all possible hazardous conditions are assessed.

The implementation of a "decision to change" will ensure that all affected members of Milepost or subcontractors are properly informed and trained prior to any changes, either internal or external.

Managers Signature \_\_\_\_\_

A handwritten signature in black ink, appearing to be "GDC", is written over a horizontal line.

Date: January 1, 2018





## **Milepost Manufacturing Ltd.**

### **Quality Control / Quality Assurance Policy**

The management of Milepost Manufacturing Ltd. is committed to providing the very best quality and service in the production and installation of secondary containment systems that comply fully with the specifications and expectations of our valued clients. Therefore, it is the policy of Milepost Manufacturing Ltd. to adhere strictly to the quality control program and to ensure that this program and the requirements of our clients are met on each and every project.

Milepost management will continue to be involved in the process of developing Milepost's quality policy and quality objectives.

By producing quality products and services that contribute to our client's success, this in turn contributes to our own success.

The Quality Control Program shall ensure that our products both comply with the specified requirements and meet or exceed our client's expectations.

Management shall identify requirements and provide adequate resources and trained personnel as needed to support required QA/QC verification activities. Verification activities shall include inspection, testing, and monitoring of the manufacturing / installation process, evaluations of materials and workmanship, and audits of the quality systems. Also, management shall ensure the availability of necessary resources required to implement maintain, and continually improve the effectiveness of the quality management system.

Documentation is recorded and available for reference. All inspections and verifications meet or exceed applicable legislated requirements.

We shall strive not to simply satisfy our client's basic requirements, but to be the supplier they always turn to.

Managers Signature: \_\_\_\_\_

Date: January 1, 2018



## **CORPORATE HEALTH AND SAFETY POLICY**

### **Part 1 (a)**

The management of Milepost Manufacturing Ltd. is committed to the concept of safety on and off the worksite. This includes the protection of personnel, equipment, material and the environment from accidental or deliberate loss caused by injuries or accidents.

In fulfilling this commitment, Milepost Manufacturing Ltd. will comply with all applicable municipal, provincial and federal legislation to the best of its ability.

Milepost Manufacturing Ltd. has developed a comprehensive health and safety manual outlining company policies, job procedures, safe work practices and programs to ensure adequate hazard identification control, and worker training is adhered to. Milepost will ensure that work is performed by a competent worker or under the direct supervision of a worker who is competent to do the work. Milepost Manufacturing Ltd. will ensure that a worker is trained in the safe operation of the equipment the worker is required to use.

Workers have the right to refuse any work or work process where he/she has reasonable cause to believe that to do so would create an undue hazard to himself or other persons. A worker who refuses to carry out a work process or operate equipment must immediately report the unsafe condition to a supervisor, who will investigate the issue and ensure any unsafe conditions is corrected immediately.

The management is dedicated to the maintenance of a safe and healthy work environment and will ensure that the work site is kept clean and free from materials or equipment that could cause workers to slip or trip. Milepost Manufacturing Ltd. will ensure that all equipment used is maintained in a condition that will not compromise the health and safety of workers, and will safely perform the function for which it is designed for, is of adequate strength and is free from obvious defects.

Inspections of workplaces, yard, and equipment will be performed on a regular basis to prevent the development of unsafe working conditions. Unsafe conditions or defective equipment will be corrected without delay.

Workers must not enter or remain at Milepost workplace if their ability to work is affected by alcohol, a drug or other substance.

Employees at every level, including management and subcontractors are responsible and accountable for the company's overall safety initiatives. Complete and active participation by everyone, everyday, in every job is necessary for the safety excellence this company expects.

An accident and injury free workplace is our goal. Through continuous safety and loss control effort, we can accomplish this.

**"THINK SAFETY"**

\*The safety information in this policy does not take precedence over applicable government regulations, with which all employees should be familiar.

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018



## Assignment of Responsibility And Accountability for Safety

### Part 1 (1)

#### **MANAGER**

Establish a safety policy.  
Provide a safe workplace.  
Maintain a safety program.  
Ensure proper training of workers.  
Ensure PPE are available.  
Ensure regular inspections are done

Correct unsafe conditions.  
Provide first aid.  
Investigate all accidents.  
Report injuries to W.C.B.  
Ensure compliance with regulations.  
Set a good example.

#### **SUPERINTENDENT**

Promote safety awareness.  
Establish safe work procedures.  
Instruct workers.  
Correct unsafe practices.  
Detect trouble employees.  
Correct unsafe conditions.

Enforce safety rules.  
Inspect for hazards.  
Investigate all accidents.  
Ensure proper maintenance.  
Comply with regulations.  
Set a good example.

#### **WORKERS**

Use safe work procedures.  
Correct unsafe conditions  
Report any injury.  
Make safety suggestions.

Report unsafe conditions.  
Report unsafe acts.  
Comply with rules and regulations.  
Report to work FIT FOR DUTY

Set a good example.



# Assignment of Responsibility and Accountability for Safety

## Part 1 (2) **MANAGERS**

- Provide a statement of policy relating to Milepost Manufacturing Ltd. safety program. The statement provides a commitment and philosophy that sets levels of expectations for safety performance throughout the corporation.
- Maintain overall control of the safety and loss prevention program direction.
- Ensure all established safety policies are administered and enforced in all areas.
- Ensure that all field operations personnel are aware of and effectively practice the policies and procedures set out in this safety program.

## Part 1 (3)

### **SUPERVISORS (Managers)**

- Ensure implementation and maintenance of the established safety policies on specific projects within their respective areas of jurisdiction.
- Ensures the maintenance of the highest standards of performance with respect to the safety program on their respective job-sites. They are also accountable for the safe performance of personnel and equipment on their projects.
- Implement a site safety program and develop a clear understanding of safety responsibilities and specific duties for each employee. The Superintendent must be knowledgeable of and responsible for complying with all regulations, laws and codes.
- Hold safety meetings on a regular basis with the employees to review safety conditions and general safety policies. Ensure that subcontractors attend Milepost Manufacturing Ltd. safety meetings.
- Arrange for the recording of minutes of safety committee meetings and forward copies to the manager.
- Make daily observations of safety activities on the projects.
- Accompany government O.H. & S. inspector(s) during project inspections.



## Assignment of Responsibility and Accountability for Safety

### Part 1(3)

- Ensure that new hires received detailed safety instructions before they are allowed to start work. New employees should be assigned to work with other employees who are familiar with our industry and are aware of any specific safety rules and regulations that are in force.
- Formulate a detailed hiring route for all the employees, which include a review of the project safety rules and regulations prior to starting work. (New Hire Orientation)
- Ensure that workers are provided training on the chemical and biological hazards they may be exposed to.
- Provide safe working conditions for all employees under his supervision.
- Provide instructions to workers in safe work procedures. As part of the routine duties, the superintendent shall require employees to use personal protective equipment as appropriate, e.g. hardhat, goggles, masks, respirators, safety glasses or other items deemed necessary.
- Correct physical conditions, which are liable to cause or have caused accidents.
- Undertake the investigations of accidents, incidents or near misses to determine the underlying causes. These must be reported in detail to the manager and the required report forms completed on a timely basis.
- Provide a good example for employees by always directing and performing work in a safe manner.
- Conduct regular inspections for unsafe practices and conditions and ensure prompt corrective action to eliminate causes of accidents.
- Work in cooperation with other companies in determining safe practices, enforcing their observance, developing procedures for dealing with violations and developing other general safety and accident prevention.
- Provide each employee with information with the hazards on the job and how to avoid them.
- Maintain a good housekeeping standard and assign definite responsibilities to individuals for housekeeping.
- Enforce all established safety regulations and work methods. Take disciplinary action as necessary to ensure compliance with the rules.
- Provide a minimum of one tool box meeting daily to identify hazards and methods of control and update as conditions change, (eg. Weather, task, new equipment etc.) and record minutes on the prescribed form.





## Assignment of Responsibility and Accountability for Safety

### Part 1 (4)

#### **EMPLOYEES**

- To report to work "FIT FOR DUTY"
- New employees will receive an orientation package consisting of company policies and procedures. It is the employee's responsibility to read all information thoroughly prior to signing these documents.
- To read, understand, and comply with this company's safety policy, safe work practices, procedures and rules. Employees who fail to perform work safely will be dismissed.
- Attend and participate in the Safety Meetings and Tool Box meetings as scheduled.
- To wear the safety equipment, personal protective devices and clothing required by regulations and Milepost Manufacturing Ltd.
- To notify the supervisor of any unsafe conditions or acts that may be of danger to other workers or himself / herself.
- To REFUSE any work which if on reasonable grounds he/she believes that there exists an imminent danger to the health or safety of that worker or other workers or persons present in the area.
- To report all accidents and injuries to the supervisor as soon as possible.
- To take every reasonable precaution to protect the safety of other workers and himself / herself.
- To co-operate with Milepost Manufacturing Ltd. to the best of their ability.
- To contact the supervisor if he / she is unsure of a procedure or requires more information prior to commencing work.
- To work in a conscientious manner and with regards to the health and safety of yourself and other workers who may be affected by your actions.
- To perform the tasks that you are qualified for.
- To know the location and use of all emergency and safety equipment on the worksite.

### Part 1 (5)

#### **SAFETY ADMINISTRATOR (MANAGER)**

- Responsible for daily administration of safety program.
- Post all safety bulletins, safety posters and safety rules and regulations where they can be seen.
- Complete all accident investigations, analysis, and preparation of accident reports and summaries soon as possible.
- Ensure that pertinent safety reports are submitted as required.
- Prepare description of identified unsafe conditions and the steps take to correct these conditions.
- Prepare a copy of inspection reports on equipment.



## Assignment of Responsibility and Accountability for Safety

### Part 1(5)

- Prepare description of identified unsafe conditions and the steps take to correct these conditions.
- Prepare a copy of inspection reports on equipment.
- Ensure that Safety Meetings and Tool Box Meetings are held as required.
- Prepare a copy of field safety inspection checklists.
- Ensure that corrective action has been taken whenever deficiencies are identified.
- Conduct all safety seminars and training.
- Maintain current knowledge of safety literature, regulations and codes of practice.
- Establish schedules of inspection.
- Review safety and accident reports with the manager and supervisors at least once a month.
- Prepare a copy of field safety inspection checklists.
- Provide health education material or instruction to all on-site employees as required.

### Part 1 (6)

#### **FIRST AID PERSONNEL**

For all jobs the safety manager will appoint adequate person(s) to provide such first aid services as may be required given the nature of our industry and government regulations. The person(s) appointed to this position shall possess an appropriate certificate in first aid in accordance with the relevant occupational health and safety regulations and must be available at all times to administer first aid. Each worksite will have a certified first aider on site, equipped with a Number 2 first aid kit which is in compliance with the O.H. & S Rules and regulations. All crews will have a cell phone to call for assistance. Each First Aid Kit shall be clearly identified as First Aid Equipment. Supplies must be kept clean, dry, serviceable and protected from the environment. Each kit will be regularly maintained monthly, or as required. All injuries and illnesses will be documented; records will be kept on file for a minimum of 3 years in a locked file due to confidentiality. An investigation will be performed on any serious injury, medical aid or other incident with the potential for causing serious injury to workers.

- Administer first aid as required.
- First Aid Treatment Records must be completed and turned in to the safety officer. All files are to be kept confidential.
- Requisition all first aid supplies and equipment to the safety manager / Superintendent.
- Maintain relations with physicians, W.C.B., ambulance services and hospitals in your area.
- Coordinate the transportation of injured employees to a physician's office or hospital.
- Assist safety manager when necessary.
- Number of first aiders required on site shall comply with OH & S Regulations.
- Retention of all first aid incident records for a period of 3 years.
- On site list of First Aid personnel shall be current.



Assignment of Responsibility  
and  
Accountability for Safety

Part 1 (7)

**SUBCONTRACTORS**

- Must read, understand, and comply with Milepost Manufacturing Ltd. safety policy, safe work practices, procedures and rules.
- Must provide documentation to Milepost Manufacturing Ltd. confirming all employees are properly trained.
- Must wear the safety equipment, personal protective devices and clothing required by Alberta Occupational Health & Safety Regulations & Act.
- Must provide information, instructions, and assistance to Milepost Manufacturing Ltd., staff in order to protect the health and safety of all workers.
- Must begin work on developing a health and safety program for their company if one is not available while working on a Milepost Manufacturing Ltd. jobsite.
- Must notify Milepost Manufacturing Ltd. of any unsafe conditions or acts that may exist on the project.
- Must report all accidents, in writing, immediately to Milepost Manufacturing Ltd., and to investigate all accidents fully, and to advise Milepost Manufacturing Ltd. on how they propose to prevent similar accidents in the future.
- Must carry out safety inspections / hazard assessments of their worksite area to ensure a safe and healthy environment for all workers. These safety inspections / hazard assessments must be performed daily or sooner depending on the worksite situation. A copy of these safety inspections / hazard assessments must be delivered to Milepost Manufacturing Ltd. within 72 hours.
- Must be in attendance at required safety meetings.
- Must conduct regularly toolbox / tailgate meeting with their employees.
- Must take every reasonable precaution to protect the safety of all workers on site.
- Must co-operate with Milepost Manufacturing Ltd. on safety issues to the best of their ability.
- Must work in a conscientious manner and with regards to the health and safety of other workers who may be affected by their actions.
- Must only perform the tasks that they are qualified for.
- Must know the location and use of all emergency and safety equipment on the worksite.
- Must provide Milepost Manufacturing Ltd. with a list of all employees trained in first aid, as well as any additional emergency training.



## Assignment of Responsibility and Accountability for Safety

### Part 1 (8)

#### **Responsibilities**

As outlined in the company safety policy, it is the responsibility of all employees to strive for a continued high level of safety awareness in the day-to-day operations of the company. The specific responsibilities of workers and management will vary from time to time depending on a particular situation.

Milepost Manufacturing Services Ltd. has the opportunity to work for many different companies. Many of these companies have safety programs in place. **Milepost Manufacturing Ltd. will comply with the terms and conditions of the primary contractor's safety program and the wishes of the on-site primary contractor's representative, unless it is determined by mutual consent that Milepost Manufacturing Ltd. "Safe Operating Procedures" exceed the established standards and are better able to protect the workers, property, material and the environment.**

In order that the most effective and efficient procedures are utilized; the management will use all of the factors at their disposal to the best advantage.

#### **This will include:**

- Pre-planning events
- Personnel scheduling.
- Selection and training of workers.
- Materials handling and control.
- Supervising operations.
- Inspecting processes and equipment.
- Establishing a preventative maintenance program.
- Co-operating with workers to develop a "near miss" incident reporting and investigation program.
- Knowing and complying with applicable company, municipal, provincial and federal legislation.
- Interpreting company policy to workers.

**It is the Responsibility of the employer and employees to read, understand and comply with the Alberta Health and Safety Act and Regulations.**



## **DRIVERS QUALIFICATIONS / RESPONSIBILITIES**

### **Part 1 (9)**

#### **QUALIFICATIONS**

- Class 1 or 3 valid driver's license with air brake endorsement.
- All drivers must supply a driver's abstract.
- All drivers must hold current tickets in: T.D.G., W.H.M.I.S., First Aid / CPR and H2S.

### **Part 1 (10)**

#### **RESPONSIBILITIES**

- **Drivers are required to check in with office upon arrival at site and when leaving site.**
- Ensure that the company is aware of how to contact you during off-hours.
- Presents himself / herself for work on time, dressed neat and clean.
- Be a responsible individual, capable of working unsupervised.
- Is a demonstrated professional, safe, defensive driver capable of operating at any time under varying weather, road and traffic conditions.
- Comply with all company driving policies, practices and procedures.
- Drivers must be able to produce appropriate documentation including operators, license, vehicle registration, insurance, and any special permits required to operate the vehicle or transport materials or equipment (i.e. TDG permits, shipping documents etc.)
- Drivers are responsible to ensure they are properly rested and physically able to safely operate the vehicle. Tiredness is equal to being impaired.
- Wear appropriate personal protective equipment at all times when required. Be responsible for all protective equipment, ensuring defective items are returned for immediate replacement.
- Operates company vehicles professionally, safely and courteously.
- Undertakes such duties as chaining up that in his / her judgement may be required to effect the safe transportation and delivery of the equipment and load. Must ensure that all cargo on or in the vehicle be stored and secured to prevent unintentional movement of the equipment which could cause spillage, damage to the vehicle or injury to the operator or other individuals.
- Continually monitors all fluid levels, vehicle operation, handling, and reporting any excess or defects to the company in the prescribed manner.
- Reports any vehicle accident or property damage immediately to his / her dispatcher, then follows instructions provided, representing the company's interest and minimizing the risk at the scene until assistance is provided. Refer to the investigation section in this manual.
- Fuels, parks and does a post trip inspection on the equipment he / she was operating.
- Completes the administrative functions required and submits his / her paperwork immediately following the return trip.
- When driving long distances, take rest stops, or switch drivers.
- Builds a rapport between the company and the customers through professional on time and incident free service.





## **DRIVERS QUALIFICATIONS / RESPONSIBILITIES**

Part 1 (10)

### **RESPONSIBILITIES**

**BEFORE LEAVING HOME, CHECK YOUR GEAR!**

You must have the following safety equipment:

- Steel Toe Boots (all weather conditions) (CAN/CSA-Z195-N92).
- Certified Hard Hat (CAN/CSA-Z94.1-92).
- Proper Clothing (coveralls, all weather attire)
- Eye and Ear Protection
- Food and Drinking Water.
- Alternate Clothing (gloves, liners, etc.)
- Time Ticket Book.
- Personal Gear.

**ON YOUR WAY TO THE JOB SITE OR BACK TO THE MAIN YARD**

**Please Drive Carefully!**

Part 1 (11)

### **VEHICLE START-UP PROCEDURES**

Before starting vehicle, check engine oil, belts, coolant levels, and power steering. Start vehicle, do your walk around while engine warms to operating temperature.

**Walk around consists of the following:**

- Tires (Pressure)
- Air, Oil, Fuel Leaks
- Valve caps
- Lights (All)
- Secured equipment (hoses, shovel, torch and fire extinguisher).
- Back-up alarm, lights.
- Wheel nuts, especially on floater tires.

**Inside of Cab:**

- Fuel Level
- All gauges, low air warning, etc.
- Wipers.
- Adjust mirrors.

Obey all rules of the road. The speed limit for Milepost Manufacturing Ltd. trucks is the provincial highway traffic act maximum. Drive to road conditions.



## Subcontractor Driver Orientation

### Part 1 (12)

Prior to engaging the services of any individual or firm as an independent contractor, the contractor must provide and submit all necessary documents and complete a Contractor Pre-Qualification Checklist. All sub-contractor personnel working on site must attend the Milepost site safety orientation before conducting any type of work in Milepost yard, shops or project sites.

#### Required Documentation:

- Company Information
- All applicable certificates – Drivers Licence, etc.
- Insurance Certificates
- WCB letter of Clearance
- WCB Rate Statements
- Safety Documents/Policies
- Company Safety Manual
- Vehicle Inspection Certificates or Equipment Inspection Certificates
- Workers certification / training records
- Drivers Log Book
- Spill Kit

Milepost Manufacturing Ltd. will review the scope of work with the sub-contractor to ensure sub-contractor is able to provide necessary services for the project. Time lines for project completion will be assessed.

Upon arrival to the Milepost Manufacturing Ltd. yard and/or shops, the driver shall report to the office and sign in on the provided sign in sheet. Driver will review the hazard assessment according to that day and will sign on to that hazard assessment and make additional comments pertaining to his/her scope of work while in Milepost Manufacturing Ltd. yard/shops. The Milepost site supervisor will review hazards with the driver to ensure the driver is aware of all hazards and will advise the driver of any preventative measures taken to eliminate or control the hazards.

The hazard assessment will be updated as conditions, or equipment or workers change. Weather conditions will be monitored for any inclement conditions.

The subcontractor will perform regular inspections of his/her work area on an ongoing basis to ensure compliance with HSE policies, OH&S Regulations, and quality control provisions.

Prompt communication with Milepost Manufacturing Ltd. if there are any concerns regarding the work being performed or any other issues that may arise.

Subcontractor will abide by Milepost Manufacturing Ltd. policies and procedures, rules, and safe work practices and safe job procedures for the duration of the project.



## General Rules

### Part 1 (13)

- Safety equipment is to be worn in the work area at all times. Drivers are responsible to provide, properly use and maintain the appropriate **PPE**. Hard hat, CSA approved safety glasses, gloves, steel toed work boots at least 6" high at the ankle, and reflective vest or coveralls must be worn.
- **Smoking** is permitted only at coffee breaks and lunch breaks and only in the designated areas. (see Milepost Manufacturing Ltd. "Smoking Policy")
- Drivers while in Milepost yard will refrain from using their **cell phone** while driving. Drivers may not use cell phones or similar devices to receive or place calls, text messages, surf the internet, check phone messages, or receive or respond to e-mail while driving.
- The use of **cell phone cameras** on Milepost property is strictly prohibited unless permission has been granted by Milepost senior management.
- Any "on-site" images and any other images taken are sole property of Milepost Manufacturing Ltd. and not the property of the individual.
- **Workplace violence** – any behavior that is violent, threatens violence, coerces, harasses or intimidates others, interferes with an individual's legal rights, or other threatening behaviour towards people or property will not be tolerated. Individuals who violate this policy may be removed from Milepost property. Incidents of workplace violence, threats of workplace violence, or observations of workplace violence should be promptly reported to a Milepost supervisor. (see Milepost "Workplace Violence Policy")
- Drivers must report "**FIT FOR DUTY**" No driver shall report to work or be at work under the influence of **alcohol or drugs**. When there is reasonable cause to believe the driver may be impaired, the driver's employer will be contacted and testing will be requested. The driver will not be permitted to drive off Milepost yard until it has been determined that it is safe to do so. **Fatigue** is increasingly being recognized as a factor that significantly impairs an employee's ability to perform their job safely and effectively (see Milepost "Drug and Alcohol Policy" and "Fit for Duty Policy")
- **All near misses, incidents or accidents, 1<sup>st</sup> aids, or injuries of any kind – no matter how minor are to be reported to Milepost immediately**, followed by a written report, immediately. All accidents or incidents involving injury will be investigated. Drivers will be required to cooperate with Milepost during the investigation to identify root causes and help identify corrective actions to prevent further incidents. (see Emergency Response Plan)



## General Rules

### Part 1 (13)

- All **Milepost vehicles have the right** of way in the Milepost yard.
- **SPEED LIMIT** in yard must be observed = **15 KM** per hour.
- **Do not park in front of doors.**
- **Standard hand signals** must be understood.
- Use **3 point contact** / with or without provided ladder when required to access or egress trailer decks.
- Never walk under a **suspended load** for any reason.
- **Never approach the crane operator during a lift** unless a hazardous situation which requires immediate cessation of the lift is observed.
- During loading ensure that only workers required to do the job are present. **Anyone not required must leave the loading area.**
- Drivers are responsible to **dispose of their garbage** in the appropriate garbage container. Keep Milepost yard and shops clean and in good condition.
- Ensure that **load is properly secured** by the method provided.
- **Inspect all load straps before use.** Ensure that all damaged load straps are discarded. Poor rigging may result in personnel injury, property damage, or other serious hazards. Caution must be taken to ensure that nylon straps are not damaged by sharp corners. If in doubt about the security of your rigging, ask for help.
- Every worker has the **right to refuse** or stop any work if, on reasonable or probable grounds the worker believes that there exists an imminent danger to the health or safety of that worker or any other worker present at the worksite. (OH&S Act. Section 35)
- A worker may refuse to perform any activity or work in any area, without reprimand, if the worker has reasonable cause to believe that performing the activity or working in the area constitutes a danger to himself/herself or any other worker.
- Workers who exercise their right to refuse work must immediately report the work refusal to their supervisor.
- Work must stop, and not resume until the unsafe work concern has been addressed.
- Workers will not be reprimanded for refusing to perform unsafe work provided that the individual follows required procedures.
- All work refusal concerns shall be documented and corrective measures put in place.



## **Subcontractor Driver Orientation**

### **Part 1 (14)**

**Violation of Milepost Manufacturing Ltd.** and /or legislated HSE Policies, safety, or environmental standards may result in disciplinary action up to and including termination of services contract.

- On first offence, a verbal warning will be given.
- On second offence, a written warning will be given.
- On third offence, termination of services contract.

**Milepost Manufacturing Ltd. reserves the right to terminate any subcontractor on a single HSE infraction, with or without prior notice.**





## WORKING ALONE POLICY

Before a worker is assigned to work alone a hazard assessment must identify any hazards to that worker. Worker, along with a supervisor shall perform a hazard assessment to identify any hazards that may hinder the safety of the worker, prior to commencing work. Measures to eliminate or minimize the risk must be completed prior to worker starting assignment, and recorded on the hazard assessment.

Whenever assistance is not readily available in the event of any injury, illness or emergency, the employee will have available to him / her communication such as a two-way radio or a cell phone.

When a worker is required to work alone, the employer shall establish a schedule where the employee must radio or telephone into the main office at set intervals. If no means of communication is available arrangement will be made to have someone check in on the worker at determined intervals.

A person must be designated to establish contact with the worker at predetermined intervals and the results must be recorded by the person. Employees working alone, and any person assigned to check on the worker must be trained in the written procedure for checking the workers well-being.

In the event that employee is unable to be contacted, a co-worker or manager will be dispatched to check on them. A workers required to work alone and any person assigned to check on the worker must be trained in the written procedure for checking the workers' well being. Both employees' need to be aware of procedure and set intervals for contact schedule.

Manager's Signature: \_\_\_\_\_

A handwritten signature in black ink, appearing to be "S. B.", is written over a horizontal line.

Date: January 1, 2018



2

# HAZARD ASSESSMENT



# CONDUCTING A HAZARD ASSESSMENT

## Hazard Assessment Part 2 (1)

To conduct a hazard assessment, proceed as follows:

- All affected employees and/or subcontractors shall participate in the hazard identification process. Employees will be actively involved in the hazard identification process. If subcontractors are performing work at the location, they shall be included.
- All employees shall be provided training on hazard identification and risk assessment.
- Each site requires a written site/project hazard assessment, to be monitored throughout the day for any changes, (e.g. weather changes, personnel, equipment, air quality etc.)
- Tour the entire operation.
- Look for possible hazards originating with environmental, material, equipment and people.
- Keep asking yourself **WHAT IF**.
- Mark every area on the assessment form that pertains to your operation.
- Identified hazards must be reviewed with all affected employees and/or subcontractors.
- Rank the hazards on a "Risk Assessment Matrix" ranking them according to the severity and frequency of occurrence of the potential danger of the task. (see chart)
- Hazards will be ranked both before precautions and after precautions have been put in place.
- Using the company safety manual, start setting up a plan to control the hazards that have been identified.
- Hazard Assessment process must be repeated as hazards change or when going to a new work site. (weather changes, personnel, equipment, etc.)
- In the event that an emergency action is required to eliminate a hazard that is dangerous to the safety of workers, only those workers competent in correcting the hazardous condition may be exposed to the hazard. Keeping number of exposed workers to a minimum.

## HAZARD CONTROL

As effective safety program will use these general approaches to hazard control.

- Elimination – eliminate the hazard.
- Substitution - provide an alternative that is capable of performing the same task and is safer.
- Engineering Controls - Provide or construct a physical barrier or guard.
- Administrative Controls - Develop policies, procedures, practices and guidelines, in consultation with employees to mitigate the risk. Provide training, instruction and supervision about the task.
- Personal Protective Equipment – Personal equipment designed to protect the individual from the hazard.





# MILEPOST

## MILEPOST FIELD LEVEL HAZARD ASSESSMENT

Job Description: \_\_\_\_\_ Date: \_\_\_\_\_

Job #: \_\_\_\_\_ Time: \_\_\_\_\_

Task Location: \_\_\_\_\_

*For each item below ask yourself, are the existing safeguards satisfactory? If the answer is no, take corrective actions required before proceeding*

**Where the task is deemed high risk, consider the need for a formal Risk Assessment**

**STOP & Think**

Resume Work

Look Around & Identify Hazards

Control Hazards

Assess Hazards

**Field Level Hazard Assessment**

Alberta Construction Safety Association

### Rigging/Lifting

Y N N/A

|                          |                          |                          |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Lift study required                         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Tools / equipment / slings inspected        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Designated signalman identified             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Tag lines                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Level / Stable ground conditions            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Certified lifting point (bucket, hook, jib) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper rigging practices                    |

### Fall Protection/Leading edge

Y N N/A

|                          |                          |                          |                               |
|--------------------------|--------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Full Body Harness             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Barricades / guard rails      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Slip / trip / fall potential  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Temporary protection identify |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Lanyard / retractable         |

### Permits/Excavation/Confined Space/Procedure

Y N N/A

|                          |                          |                          |                           |
|--------------------------|--------------------------|--------------------------|---------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Reviewed w/crew           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All permit conditions met |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Procedures reviewed       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper isolations         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other _____               |

### Overhead Work

Y N N/A

|                          |                          |                          |                                  |
|--------------------------|--------------------------|--------------------------|----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Communication with others        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Falling objects                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spotter required                 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Overhead obstructions (identify) |

### Hazards

Y N N/A

|                          |                          |                          |  |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper tool and material placement         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hot / cold surfaces or material            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adequate lighting                          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Fall potential                             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pinch points                               |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Slip / trip potential                      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Lighting clearances                        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sharp objects                              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Industrial hygiene (air quality / haz mat) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Reactive / toxic chemicals                 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Working alone                              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Swing zone area controlled / Spotter       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other _____                                |

### PPE

Y N N/A

|                          |                          |                          |                                  |
|--------------------------|--------------------------|--------------------------|----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Available / Trained in use       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Inspected / good condition       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Protection against eye injuries  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Respiratory protection           |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hearing protection adequate      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Protection against hand injuries |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Kevlar gloves / gauntlets        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Reflective vest                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Monogoggles / Face shield        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Metatarsal Guards                |

### Electrical

Y N N/A

|                          |                          |                          |                                    |
|--------------------------|--------------------------|--------------------------|------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Extension cord inspection          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Explosion Proof cords/tools        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Work on / rear energized equipment |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Insulated / Locked out             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other _____                        |

### Environmental

Y N N/A

|                          |                          |                          |                                    |
|--------------------------|--------------------------|--------------------------|------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spill Kit / Containment identified |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Waste containers needed            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | WHMIS labels / MSDS                |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Weather considerations             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Dust Control                       |

### Ergonomics

Y N N/A

|                          |                          |                          |                       |
|--------------------------|--------------------------|--------------------------|-----------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Body in line of fire  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Awkward body position |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Over extension        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Manual handling       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Repetitive motion     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Twisting motions      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pinch points          |

### Tools/Equipment

Y N N/A

|                          |                          |                          |                                   |
|--------------------------|--------------------------|--------------------------|-----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper tools / inspect before use |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hose / connections / whip checks  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Equipment checklist completed     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Compressed gas cylinders          |

### Emergency Preparedness

Y N N/A

|                          |                          |                          |                                  |
|--------------------------|--------------------------|--------------------------|----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Communication / Radio            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Safety shower / eyewash          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Evacuation route / Assembly area |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Fire extinguisher inspected      |

### Housekeeping

Y N N/A

|                          |                          |                          |                             |
|--------------------------|--------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Work area clean             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Trash containers sufficient |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adequate lighting           |

Please ensure that controls are put in place for all hazards overleaf

Foreman Review (Please Print): \_\_\_\_\_ Foreman Signature: \_\_\_\_\_







## HAZARD RANKING

### Part 2 (3)

Milepost Manufacturing Ltd. will rank hazards according to Severity and Probability to calculate the Risk Level. This matrix will be used to rank jobs or tasks to identify the level of risk and help to prioritize control measures. A critical job inventory will be developed for each job position and associated hazards identified for each task performed.

Review the equipment used and accident/injury records to assist with the assessment process.

By considering the potential Severity of the incident, Probability of the incident occurring, the activity will be given a Risk level. Total all rankings and reference the chart below to identify the Risk Level.

### Severity

- 1: Imminent Danger- causing death, widespread occupational illness, loss of facility.
- 2: Serious- severe injury, serious illness, property and/or equipment damage.
- 3: Non-serious injury, discomfort, illness or damage to property or equipment.
- 4: Minor- minor injury, requiring first aid or less.

### Probability

- A: Probable- likely to occur immediately or soon.
- B: Reasonably Probable- likely to occur eventually.
- C: Remote- could occur at some point.
- D: Unlikely - unlikely to occur.

Hazard Rankings with a Risk Rating of: 1A, 1B, 2A, 2B would be considered **Critical Tasks**



## Critical Job Inventory

Part 2 (4)

Date: \_\_\_\_\_ Department: \_\_\_\_\_  
Occupation: \_\_\_\_\_

| Task | Severity | Probability | Total* | Critical Task? |
|------|----------|-------------|--------|----------------|
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |
|      |          |             |        |                |

### **Severity**

- 1: Imminent Danger- causing death, widespread occupational illness, loss of facility.
- 2: Serious- severe injury, serious illness, property and/or equipment damage.
- 3: Non-serious injury, illness or damage.
- 4: Minor- minor injury, requiring first aid or less.

### **Probability**

- 1: Probable- likely to occur immediately or soon.
- 2: *Reasonably Probable- likely to occur eventually.*
- 3: *Remote- could occur at some point.*
- 4: Unlikely - unlikely to occur.

Hazard Rankings with a Risk Rating of: 1A, 1B, 2A, 2B would be considered **Critical Tasks**.



## **Milepost Manufacturing Ltd.**

### **Hazard Assessment Training Program**

#### **Part 2 (5)**

**A hazard is any situation, condition, or thing that may be dangerous to the safety or health of workers.**

The purpose of hazard management is the prevention of injury and illness to workers and provides the additional benefit of reducing other types of losses such as equipment or property damage, down time, and decreased productivity.

Milepost Manufacturing Ltd. will ensure that all workers are trained in the job hazard assessment process prior to performing any work for Milepost Manufacturing Ltd.

Assessing hazards involves taking a look at what could harm workers at a workplace: the typical question is to ask "What Could GO Wrong"? Then determine how the job can be done safely.

- A hazard assessment takes into account the hazards specific to the task being done.
- Whether appropriate precautions have already been taken to prevent incidents and injuries.
- Whether other measures are necessary.
- Potential hazards in the environment which may affect the workers safe performance of the task.
- Movement of vehicles, upset pf stored materials, collapse of unsecured structures, or collapse of earthen piles.

Workers will be instructed how to identify the hazards and implement controls which will eliminate or minimize the potential of injury to a worker.

Workers will complete a written job hazard assessment that applies to the worksite or worksite activities daily and this assessment will be updated as the task, process, and equipment or weather changes.

For every hazardous condition identified, recommendations should be made to eliminate or control the problem.

The job hazard assessment will be periodically reviewed by the onsite foreman to ensure that all applicable hazards have been identified and proper controls are in place to control the hazards.

Any worksite investigation should include the review of the job hazard assessment to determine if the hazards were identified and if adequate control measures were in place and being used.



## Conducting a Hazard Assessment

### Part 2 (5)

- Assemble the people who will be involved.
- Discuss possible hazards with the workers
- Look for possible hazards originating from environment, equipment, and people.
- Keep asking “WHAT IF?”
- Mark on the checklist all items that need attention.
- Review the findings with supervisors/workers and look for ways to eliminate or control the hazards.
- Rank the items on a “worst first” basis – critical tasks are to be analyzed.
- If required, take corrective action and make recommendations for the control of hazards (e.g. safe work practices and safe job procedures, rules, engineering and administration controls, PPE).
- Monitor and follow up to ensure that corrective action is taken.
- Provide education/training as required.

### Other Points of Consideration

Are there potential problems with housekeeping?

Are workers exposed to extreme cold, heat, or adverse weather conditions?

Is excessive noise a problem?

Is there sufficient lighting?

Is exposure to harmful radiation possible?

Are dusts, fumes, or mists in the air?

What other conditions or activities are being undertaken which could impact the safety of workers?

Does the work environment pose a harm to the public?

What previous activities were conducted at the worksite that may pose a hazard to workers?



## WORKPLACE VIOLENCE POLICY

Milepost Manufacturing Ltd. prohibits workplace violence. Violence, threats of violence, intimidation, harassment, coercion, or other threatening behavior towards people or property will not be tolerated. Complaints involving workplace violence will not be ignored and will be given the serious attention they deserve. Individuals who violate this policy may be removed from Milepost property and are subject to disciplinary action.

All Milepost staff and others, who do business with Milepost, whether in a Milepost facility or project location where Milepost business is conducted, are covered by this policy. This policy also applies to other persons not employed by Milepost, such as former employees and visitors.

The "Workplace Violence Policy" shall be posted in a visible location.

### **Definitions:**

Workplace violence is any behavior that is violent, threatens violence, coerces, harasses or intimidates others, interferes with an individual's legal rights of movement or expression, or disrupts the workplace.

### **Examples of workplace violence include, but are not limited to:**

1. Disruptive behavior intended to disturb, interfere with or prevent normal work activities [such as yelling, using profanity, verbally abusing others, or waving arms and fists.]
2. Intentional physical contact for the purpose of causing harm [such as slapping, stabbing, punching, striking, shoving, or other physical attack].
3. Menacing or threatening behavior [such as throwing objects, pounding on a desk or door, damaging property, stalking, or otherwise acting aggressively; or making oral or written statements specifically intended to frighten, coerce, or threaten].
4. Anyone having in their possession on Milepost property or work sites, items such as firearms, imitation firearms, knives or other dangerous weapons, instruments or materials that can be used to inflict bodily harm on an individual or damage property. Note: All weapons are prohibited from Milepost property and worksites.

### **General Reporting Responsibilities:**

Incidents of workplace violence, threats of workplace violence, or observations of workplace violence should promptly be reported to Milepost management. Additionally, staff is encouraged to report behavior that they reasonably believe poses a potential for workplace violence as defined above. Any report shall be kept confidential and not disclosed further, except as necessary during the investigation process.

New employees will be trained in workplace violence awareness and prevention.  
Any employee who has been a victim of violence is advised to consult a health professional.





## Workplace Violence Procedures

### Part 2 (7)

#### Management Responsibilities:

Inform employees if they are working in an area where there is a potential for violence and identify any risks that are specific to that area.

Ensure that every reported incident of workplace violence is investigated, and potential areas for improvement are identified.

#### Employee Responsibilities:

Employees of Milepost Manufacturing Ltd. are required to be familiar with and follow the procedures that are in place to protect them from workplace violence.

All employees must participate in the instruction of workplace violence prevention.

Employees are required to immediately report all incidents of workplace violence to their supervisor.

Employees are also responsible for participating in work site hazard assessments and implementing controls and procedures to eliminate or control the hazards.

No employee can be penalized, reprimanded, or in any way criticized when acting in good faith while following the procedures for addressing situations involving workplace violence.

#### Workplace Violence Prevention Procedures

- Workplace violence will be included as part of the hazard assessment procedure and communicated to workers.
- Intercom system, cell phone, air horn security cameras, and training will be used as methods to control workplace violence.
- Workplace meetings, safety meetings, toolbox meetings will help bring better communication and encourage teamwork.
- All workers who are exposed to potential or real situations of workplace violence should leave the immediate area if possible and call for assistance from co-workers or call 911 immediately.
- Employees are required to report all incidents of workplace violence to their supervisor.
- All incidents of workplace violence will be documented on the incident form and will be investigated to determine the causes and to identify how to prevent future occurrences.
- All workers exposed to workplace violence will be advised to consult with a health care professional for counseling.
- All workers will be instructed in the workplace violence policy and procedures in orientation. A review will be done annually or as new processes or hazards arise.

Date: \_\_\_\_\_. Signature: \_\_\_\_\_. Print: \_\_\_\_\_



## Milepost Manufacturing Ltd. Job Competency Policy

### Part 2 (8)

#### INTENT

Milepost Manufacturing Ltd. has adopted this policy in an effort to ensure the ongoing health and safety of our staff members and the quality of work performed by our organization by requiring that all work performed by Milepost Manufacturing Ltd. is completed by qualified, appropriately trained and competent staff members.

#### POLICY

1. Milepost Manufacturing Ltd. shall maintain and utilize an organizational chart, listing the job titles/roles. Descriptions for each job title will set forth the regular job duties, expectations and necessary qualifications/certifications for the successful completion of work.
2. Milepost Manufacturing Ltd. shall determine the minimum qualifications required to perform each role, which may be a combination of education and work experience.
3. Milepost Manufacturing Ltd. will check the references of all new hires, and shall ensure that all employees provide appropriate supporting documentation regarding qualifications, certifications, licences etc., as proof that they are qualified to perform their job duties.
4. Job specific training shall be provided for new or transferred employees. All employees shall be trained on the tasks they perform on a regular basis. Training may be performed in-house or by a 3rd Party.
5. A competent person (Supervisor, Lead Hand, etc.) must verify that an employee is competent to perform their roles and responsibilities before being allowed to work independently.
6. Milepost Manufacturing Ltd. shall ensure that staff members are assigned to work that they are qualified for, appropriately trained and competent to perform.
7. Milepost Manufacturing Ltd. shall ensure that all staff members are provided with appropriate orientation, and health and safety training, and job- specific training.

#### ACKNOWLEDGEMENT & AGREEMENT

I, \_\_\_\_\_, acknowledge that I have read and understand the Job Competency Policy of Milepost Manufacturing Ltd. Further, I agree to adhere to this Policy and will ensure that employees working under my direction adhere to these guiding principles. I understand that if I violate the rules/procedures of this Policy, I may face corrective actions, up to and including termination of employment.

NAME: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_



## Behaviour Based Safety Program

### Part 2 (9)

Milepost Manufacturing Ltd. recognizes that behaviours are a key component of the safety equation and that Behaviour Based Safety programs have been shown to increase awareness of safety expectations, to contribute towards continuous improvement in safety performance and to lead to achieving the desired safety goals and targets. Increasing the number of safe behaviours being performed is essential for incident elimination. Behaviour Based Safety helps with this, along with the other elements of a good incident reduction program.

These other elements are:

- Hazard elimination: remove the hazard from the task.
- Substitution to reduce/eliminate a hazard: substitute a material or task to reduce the hazard.
- Engineering controls: install ladders, ventilation, fall prevention.
- Administrative controls: procedures, practices, training, field level risk assessment, work scheduling.
- Personnel Protective Equipment

Milepost Manufacturing Ltd. is committed to and fully implementing, the incident control measures listed above. In this way workers should see “Behaviour Based Safety” as an addition to an already strong safety program, not a replacement for it.

Representatives of all segments of the workforce will be involved in identifying behaviours: experienced workers, supervisors, new workers, management. Involving workers in choosing the behaviours helps to get them involved and get their buy-in to the process. Employees will be provided training on job observations. Training shall include how to conduct an observation, and how to provide effective feedback on observed behaviors. All workers need to know what the required behaviours are and most important, how the required behaviours are performed safely. Eg wear a fall protection harness when working at height. A person can wear a fall protection harness safely or in an “at risk” way. If it is not snug fitted properly to the workers body, the cross strap is too high etc., then the worker is not wearing the harness safely. In this step the required behaviours and how to do them safely is communicated clearly to all workers. It is important that all participants receive clear, easily understood communication during daily, monthly safety meetings.

Observations should be planned when possible. There are a variety of different factors to be considered when performing an observation.

These include:

- a) consider observing work where the higher risk hazards, or the experience of the workers may be a factor;
- b) avoid interfering with the work activities;
- c) complete the observation report away from the work area;
- d) examine the work area for access/egress, housekeeping.

When planning observations here are some of the worker groups that can be observed:

- a) new employees
- b) younger employees
- c) people under pressure/stress (mind on task)
- d) people rushing/running.



## Part 2 (9)

A possible set of steps to perform a complete observation / interaction are:

- a) observe the workers for 30 - 60 seconds as you approach them, introduce yourself to the workers. When doing this the observer should not distract the workers at a critical moment (e.g. cutting, lifting, using ladders etc.). Wait until the interruption can occur when there will be no risk posed to the workers.
- b) explain what you are doing and that you will observe them for a bit longer,
- c) observe them for some additional time
- d) stop workers,
- e) feedback what you have observed in a positive manner to the worker that has been observed,
- f) provide positive reinforcement for all those behaviours that were performed in a safe manner
- g) when at risk behaviours are observed ask for feedback from the workers to help understand why the at risk behaviours are being performed, and provide coaching/ correction so that the required safe behaviour is obtained
- h) thank the workers for their assistance,
- i) encourage them to continue to work safely.

It is most important that all observed behaviours that are immediately dangerous to life, health or the environment are stopped as soon as they are observed. In this situation the observer does not follow the observation steps. The first priority is to stop the dangerous behaviour. The observer should discuss the problem with the workers. If the workers do not accept the observer's action and challenge the observer aggressively the observer should not confront the worker. The observer should stop the discussion and deal with the problem by talking to a foreman or supervisor.

Behaviour Based Safety observations will be completed by Milepost Manufacturing Ltd. on a weekly basis.

Observation results will be analyzed to identify trends and increase safe behaviors. Management and/or the Safety Department shall analyze results to identify trends and enhancements that can be made to make work activities safer.



## OBSERVATION CHECKLIST

Part 2 (10)

**Safe**

**At Risk**

|  |  |  |
|--|--|--|
| <b>Safety Glasses</b>  |  |  |
| <b>Hearing Protection</b>  |  |  |
| <b>Face Shield</b>   |  |  |
| <b>Safety Harness worn correctly and properly tied off</b>               |  |  |
| <b>Gloves</b>  |  |  |
| <b>Proper Foot Protection</b>  |  |  |
| <b>Fire Extinguishers charged and in place /first aid kits available</b> |  |  |
| <b>Tag lines used when hoisting</b>                                      |  |  |
| <b>Guards are in place</b>   |  |  |
| <b>Are the correct tools being used</b>                                  |  |  |
| <b>Are the tools and equipment in good condition</b>                     |  |  |
| <b>Are cords and cables in good condition</b>                            |  |  |
| <b>Is the housekeeping standard adequate</b>                             |  |  |
| <b>Material stored in a safe manner</b>                                  |  |  |
| <b>Is a permit required</b>  |  |  |
| <b>Is there a maintenance log for equipment</b>                          |  |  |
| <b>Speed limits observed</b>   |  |  |
| <b>Is isolation required</b>   |  |  |
| <b>Are the procedures adequate</b>                                       |  |  |
| <b>Are the procedures understood</b>                                     |  |  |
| <b>Are the procedures followed</b>                                       |  |  |
| <b>Overexertion / Repetative motion / Falling /</b>                      |  |  |
| <b>Line of Fire /Pinch Points / Crush areas / Chemicals</b>              |  |  |
| <b>Are slings and rigging equipment in good condition</b>                |  |  |
| <b>Is the load rating tag on lifting equipment</b>                       |  |  |
| <b>Outrigger pads are used</b>   |  |  |
| <b>Picker truck is on stable ground</b>                                  |  |  |
| <b>3pt contact used when entering or exiting</b>                         |  |  |
| <b>Has a hazard assessment been completed and updated as required</b>    |  |  |
| <b>Have the hazards been communicated to workers</b>                     |  |  |
| <b>Has worker received adequate training</b>                             |  |  |
|  |  |  |
| <b>Date:</b>   |  |  |
| <b>Auditor:</b>  |  |  |
| <b>Area:</b>   |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |



## **Right to Refuse Imminent Danger**

### **Part 2 (11)**

Every worker has the right to refuse or stop any work if, on reasonable or probable grounds the worker believes that there exists an imminent danger to the health or safety of that worker or any other worker present at the worksite. (OH&S Act. Section 35)

A worker may refuse to perform any activity or work in any area, without reprimand, if the worker has reasonable cause to believe that performing the activity or working in the area constitutes a danger to himself/herself or any other worker. Workers will be educated on their right to refuse unsafe work, and the procedures for refusing unsafe work during orientation and ongoing training during tool box meeting or general safety meetings.

Workers who exercise their right to refuse work must immediately report the work refusal to their supervisor.

A supervisor receiving a report must immediately investigate the matter and ensure that any unsafe condition is remedied without delay, or if in his or her opinion the report is not valid, must inform the worker who made the report.

Work must stop, and not resume until the unsafe work concern has been addressed.

Workers will not be reprimanded for refusing to perform unsafe work provided that the individual follows required procedures.

All work refusal concerns shall be documented and corrective measures put in place.



# Workplace Hazardous Materials Information System 2015

## Responsibilities of Suppliers, Employers and Workers

### Part 2 (12)

#### SUPPLIER

- **Must** provide Supplier Labels for all hazardous products they distribute or manufacture.
- Supply labels with bulk shipments for application upon arrival at destination.
- Ensure a current SDS is available for each product.

#### EMPLOYER

- Ensure labels are correct and in place
- Ensure that all controlled products have applicable SDS sheet available.
- Ensure SDS's are current and are located near work stations, readily available.
  - Train workers on WHMIS , and procedures for safe handling of hazardous products.
- Comply with all legislation.
- List all hazardous products on site.
- Develop emergency response procedures.
- Develop and implement procedures for safe use, storage, handling, and disposal of the hazardous products on site. Then train workers on such procedures.
- Identify pumps, pipes, and vessels carrying hazardous products on site using a color coded labeling system.
- Train workers on correct labelling and SDS interpretation.
- Will ensure that if a controlled product is decanted into a container other than the container received from a supplier, a worksite label will be applied to the container.
- If labels are missing or illegible, they must be replaced with a workplace label. Labels must not be defaced or removed.

#### WORKER

- Participate in training
- Read and understand information on labels and SDS's.
- Apply this information to handle hazardous products safely.
- Inform employers if labels and SDS's are missing or unreadable.
- Workers shall not remove or deface labels on incoming containers of hazardous products.
- Follow the recommended procedures.
- Complete hazard assessments.

SDS are located in all shops and safety office.



Part 2 (13)

**GHS Pictograms and Hazard Classes**



- Oxidizers



- Flammables
- Self Reactives
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Organic Peroxides



- Explosives
- Self Reactives
- Organic Peroxides



- Acute toxicity (severe)



- Corrosives



- Gases Under Pressure



- Carcinogen
- Respiratory Sensitizer
- Reproductive Toxicity
- Target Organ Toxicity
- Mutagenicity
- Aspiration Toxicity



- Environmental Toxicity



- Irritant
- Dermal Sensitizer
- Acute toxicity (harmful)
- Narcotic Effects
- Respiratory Tract
- Irritation



Part 2 (13)



**Flammable Liquid Flammable Gas Flammable Aerosol**



**Flammable solid Self-Reactive Substances**



**Pyrophorics (Spontaneously Combustible) Self-Heating Substances**



**Substances, which in contact with water, emit flammable gases (Dangerous When Wet)**



**Oxidizing Gases Oxidizing Liquids Oxidizing Solids**



**Explosive Divisions 1.1, 1.2, 1.3**



**Explosive Division 1.4**



**Explosive Division 1.5**



**Explosive Division 1.6**



**Compressed Gases**



**Acute Toxicity (Poison): Oral, Dermal, Inhalation**



**Corrosive**





## **WORKING ALONE POLICY**

### **Part 2 (14)**

Before a worker is assigned to work alone a hazard assessment must identify any hazards to that worker. Worker, along with a supervisor shall perform a hazard assessment to identify any hazards that may hinder the safety of the worker, prior to commencing work. Measures to eliminate or minimize the risk must be completed prior to worker starting assignment, and recorded on the hazard assessment.

Whenever assistance is not readily available in the event of any injury, illness or emergency, the employee will have available to him / her communication such as a two-way radio or a cell phone.

When a worker is required to work alone, the employer shall establish a schedule where the employee must radio or telephone into the main office at set intervals. If no means of communication is available arrangement will be made to have someone check in on the worker at determined intervals.

A person must be designated to establish contact with the worker at predetermined intervals and the results must be recorded by the person. Employees working alone, and any person assigned to check on the worker must be trained in the written procedure for checking the workers well-being.

In the event that employee is unable to be contacted, a co-worker or manager will be dispatched to check on them. A workers required to work alone and any person assigned to check on the worker must be trained in the written procedure for checking the workers' well being. Both employees' need to be aware of procedure and set intervals for contact schedule.

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018

MILEPOST MANUFACTURING LTD.  
 #43, 26004-Twp Rd 544 Sturgeon County, AB T8T 0B6  
 Phone 459-1030 Fax 458-6377

**CONFINED SPACE ENTRY PERMIT**

| GENERAL INFORMATION  |            |        |        | Permit No. _____   |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
|--|------------|--------|--------|--|--------|--------|--------|--------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Space to be Entered: _____   |            |        |        | Purpose of Entry _____   |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Location / Building _____  |            |        |        | Authorized Duration of Per Date: _____ to: _____<br>Time: _____ to: _____  |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Permit Space Hazards Indicate specific hazards with initials<br><input type="checkbox"/> Oxygen deficient (less than 19.5%)<br><input type="checkbox"/> Oxygen enriching (greater than 23.5%)<br><input type="checkbox"/> Flammable gases or vapors (greater than 10% of LFL).<br><input type="checkbox"/> Airborne combustible dust (meets or exceeds LFL)<br><input type="checkbox"/> Toxic gases or vapors (greater than PEL)<br><input type="checkbox"/> Mechanical hazards<br><input type="checkbox"/> Electrical Shock<br><input type="checkbox"/> Materials harmful to skin<br><input type="checkbox"/> Engulfment<br><input type="checkbox"/> Other: _____   |            |        |        | Equipment Required For Entry Work<br>Specify as required<br>Personal protective equipment<br>_____<br>Atmospheric Testing/Monitoring:<br>_____<br>Communication<br>_____<br>Rescue Equipment<br>_____<br>Other:<br>_____   |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| PREPARATION FOR ENTRY (Check after steps have been taken).<br>_____ Notification of affected departments of service interruption.<br>_____ Isolation Method } Lockout/Tag } Blank/Blind<br>_____ } Purge/Clean } Inert } Ventilate<br>_____ } Atmospheric test } Barriers } Other: _____   |            |        |        | COMMUNICATION PROCEDURES<br>To be used by attendants and entrants<br>_____<br>_____<br>Personnel Awareness:<br>} Pre-Entry briefing on specific hazards and control methods<br>} Notify contractors of permit and hazard conditions<br>} Other: _____<br>_____ Additional permits required and / or attached:<br>} Hotwork } Line breakin } Other: _____ |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| EMERGENCY SERVICE<br>Name of Ser _____ Phone Number _____ Method of Contact _____<br>_____<br>_____  |            |        |        | AUTHORIZED ATTENDANTS (List By Name)<br>_____<br>_____   |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| TESTING RECORD<br><table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Time</th> <th style="width: 10%;">Acceptable</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> <th style="width: 10%;">Result</th> </tr> </thead> <tbody> <tr> <td>Oxygen-min</td> <td>&gt;19.5%</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Flammability</td> <td>&lt;23.5%</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>H<sub>2</sub>S</td> <td>&lt;10 ppm</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Toxic (specify)</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>CO</td> <td>&lt;35 ppm</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Heat</td> <td>°F/°C</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Other</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Testers Initial's</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> |            |        |        |  |        |        |        | Time   | Acceptable | Result | Result | Result | Result | Result | Result | Result | Result | Result | Result | Oxygen-min | >19.5% | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | Flammability | <23.5% | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | H <sub>2</sub> S | <10 ppm | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | Toxic (specify) | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | CO | <35 ppm | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | Heat | °F/°C | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | Other | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | Testers Initial's | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| Time   | Acceptable | Result | Result | Result   | Result | Result | Result | Result | Result     | Result | Result |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Oxygen-min   | >19.5%     | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Flammability   | <23.5%     | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| H <sub>2</sub> S   | <10 ppm    | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Toxic (specify)  | _____      | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| CO   | <35 ppm    | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Heat   | °F/°C      | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Other  | _____      | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| Testers Initial's  | _____      | _____  | _____  | _____  | _____  | _____  | _____  | _____  | _____      | _____  | _____  |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
| AUTHORIZATION BY ENTRY SUPERVISORS<br>I certify that all required precautions have been taken and necessary equipment is provided for safe entry and work in this confined space.<br>Printed Name _____ Signature _____ Date _____ Time _____  |            |        |        |  |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
|  |            |        |        |  |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
|  |            |        |        |  |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |
|  |            |        |        |  |        |        |        |        |            |        |        |        |        |        |        |        |        |        |        |            |        |       |       |       |       |       |       |       |       |       |       |              |        |       |       |       |       |       |       |       |       |       |       |                  |         |       |       |       |       |       |       |       |       |       |       |                 |       |       |       |       |       |       |       |       |       |       |       |    |         |       |       |       |       |       |       |       |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                   |       |       |       |       |       |       |       |       |       |       |       |

**THIS PERMIT MUST BE POSTED ON JOBSITE - GOOD ONLY ON INDICATED DATE**

|  |
|--|
|  |
|--|



# MILEPOST MANUFACTURING LTD.

## SAFE WORK PERMIT/ HAZARD ASSESSMENT

COMPANY: \_\_\_\_\_

PERMIT TYPE:

HOT \_\_\_\_ COLD \_\_\_\_ OTHER \_\_\_\_\_

PERMIT ISSUED: TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

WORK TO COMMENCE: TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

EXPECTED COMPLETION: TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

PERMIT EXPIRES: TIME: \_\_\_\_\_ DATE: \_\_\_\_\_

SPECIFIC LOCATION OF WORK: \_\_\_\_\_

DESCRIPTION OF WORK: \_\_\_\_\_

\_\_\_\_\_

### CHECKLIST:

Yes No

\_\_\_\_ \_\_\_\_ Is it an H<sub>2</sub>S site?

\_\_\_\_ \_\_\_\_ If Yes, is it posted?

\_\_\_\_ \_\_\_\_ Smoking on site only in designated areas?

\_\_\_\_ \_\_\_\_ Designated safety standby required? (Name) \_\_\_\_\_

\_\_\_\_ \_\_\_\_ Is site in production?

\_\_\_\_ \_\_\_\_ Product in tank (s)? If yes, type, ie. Crude, condensate, etc.) \_\_\_\_\_

\_\_\_\_ \_\_\_\_ Has equipment or area been tested and found safe? If not, why not? \_\_\_\_\_

\_\_\_\_ \_\_\_\_ Location of all underground utilities marked?

\_\_\_\_ \_\_\_\_ Overhead obstructions (i.e., powerlines, catwalks, piping)?

\_\_\_\_ \_\_\_\_ Locations of site safety equipment (i.e., First Aid, fire extinguishers, phones)?

Comments \_\_\_\_\_

Personal Protective Equipment Required:

Fire Retardant coveralls \_\_\_\_ Safety-toe boots \_\_\_\_ Hard Hat \_\_\_\_ Safety Glasses \_\_\_\_ Face Shield \_\_\_\_

Other \_\_\_\_\_

PRECAUTIONS TO BE TAKEN: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SIGNATURE OF RECEIVER: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE OF SITE SUPERVISOR \_\_\_\_\_ DATE: \_\_\_\_\_

**\*\*\* A COPY OF THIS PERMIT MUST BE AVAILABLE AT THE WORK LOCATION AT ALL TIMES WHILE WORK IS IN PROGRESS.**

SIGNED OFF: \_\_\_\_\_ DATE: \_\_\_\_\_

No.



# Safe Work Practices

The following are specific job procedures developed by Milepost Manufacturing Ltd.



Safe Work Practice  
Part 3 (1)

## **WORKING ON OR AROUND MOVING MACHINERY**

### **GENERAL**

**Before working on any equipment remove key from machine and tag out.**

- A worker must not operate powered mobile equipment unless the worker:
  - (a) Is trained to safely operate the equipment
  - (b) Has demonstrated competency in operating the equipment to a competent worker designated by management.
  - (c) Is familiar with the equipment's operating instructions.
  - (d) Is authorized by the employer to operate the equipment.
- 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 up.
- Powered mobile equipment is to be inspected by a competent worker for defects and conditions that are hazardous or may create a hazard. An inspection must be made in accordance with the manufacturer's specifications. If an inspection indicates a potentially hazardous problem, the equipment should not be operated until the defect is repaired.
- Maintenance records for any service, repair, or modification which affects the safe performance of the equipment must be maintained and be reasonably available to the operator and maintenance personnel during work hours.
- Worker 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 worker must not leave the controls of powered mobile equipment unattended unless a suspended or elevated part of the powered mobile equipment is either landed, secured in a safe position, or both.
- Milepost Manufacturing Ltd. will ensure that powered mobile equipment fitted with roll over protection has seat belts for the operator and passengers.
- Before starting machinery operation must ensure that starting or operating machinery will not endanger operator or other workers.
- Powered mobile equipment shall be equipped with a roof, protective screen, or cab to protect the operator when there is a risk of objects falling from above, and/or if an object being handled by the equipment could shift and impact the operator.



Safe Work Practice  
Part 3 (2)

## **FIRE AND USE OF FIRE EXTINGUISHER**

### **GENERAL**

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at anytime. This is why it is important to know which fire extinguisher to use and how to use it.

Always keep fire extinguishers visible and easy to get at. Fire extinguishers have to be properly maintained to do the job. Where temperature is a factor, ensure that care is taken in selecting the right extinguisher.

### **TYPES OF FIRES**

#### **CLASS A**

*Wood, paper, rags, rubbish and other ordinary combustible material.*

##### **Recommended Extinguishers**

Water from a hose, type of water can, or pressurized extinguisher, and soda acid extinguishers.

##### **Fighting the Fire**

Soak the fire completely – even the smoking embers.

#### **CLASS B**

*Flammable liquids oil and grease.*

##### **Recommended Extinguishers**

ABC units, dry chemical, foam and carbon dioxide extinguishers.

##### **Fighting the Fire**

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

#### **CLASS C**

*Electrical Equipment*

##### **Recommended Extinguishers**

Carbon dioxide and dry chemical (ABC UNITS) extinguishers.



## Safe Work Practice Part 3 (2)

### **Fighting the Fire**

Use short 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.

### ***Fire Fighting***

1. Keep calm.
2. Do not enter an enclosed space where the fire is or has been burning.
3. *Do not attempt to extinguish any fire without first informing others of the danger.* Report the location, your name and telephone number if applicable. The safety of all personnel is your first priority; then direct attention to the protection of property.
4. If the fire is small and readily extinguishable, take immediate action and put it out.

### **Do not attempt to extinguish a fire if:**

- A properly rated fire extinguisher is not available.
- You are not trained to use it.
- The fire might block your exit route, or
- The fire is out of control.

1. If the fire cannot be contained, sound general alarm and summon fire-fighting personnel.
2. Clear and secure the immediate area.
3. If trained in fire fighting, assist fire-fighting personnel as needed.

***Any Fire. Regardless of size, is serious.***

### **To operate a Fire Extinguisher – (PASS)**

**Pull the pin**  
**Aim at the base of the fire**  
**Squeeze the handle**  
**Sweep the extinguisher across the base of the fire**



## USE OF CLEANING SOLVENTS AND FLAMMABLES

### Safe Work Practice Part 3 (3)

#### GENERAL

Cleaning solvents are used in the day – to – day operation of the paint shop to clean tools and equipment. Special care must be taken to protect the worker from hazards, which may be created from the use of these liquids. Whenever possible, solvents should be non-flammable and non-toxic.

Workers that handle or work around flammable or combustible substances must be trained in the safe handling, use, storage, and disposal of the substance. They must be provided with adequate information concerning the identity, nature, and potential hazards of the substance. All new workers will receive WHIMIS training.

#### **THE FOLLOWING INSTRUCTIONS OR RULES APPLY WHEN SOLVENTS AND FLAMMABLES ARE USED:**

- **A fire extinguisher must be readily available when working with or near flammable or combustible products.**
- Check toxic hazards of all solvents before use (MSDS).
- Check MSDS for what proper PPE to wear (gloves, face shield, protective clothing or respiratory protective equipment).
- Provide adequate ventilation where all solvents and flammables are being used.
- Use non-flammable solvents for general cleaning.
- When a flammable gas or a flammable liquid is handled, used, or stored, all sources of ignition must be eliminated or adequately controlled. Sources of ignition include open flame, spark-producing mechanical equipment, welding and cutting processes, smoking, static discharge and any electrical equipment or installation that is not approved for hazardous locations.
- Metallic or conductive containers used to transfer flammable liquids must be electrically bonded to each other or electrically grounded while their contents are being transferred from one container to the other.
- Flammable and combustible substances must be stored in approved containers. Flammable and combustible chemicals must be stored in fire resistant cabinets or a designated storage room or building. Flammable liquids must be stored in a flammable storage cabinet with adequate ventilation.
- Never leave solvents in open tubs or vats – return them to storage after field use of solvents or flammables.

Cont....





## USE OF CLEANING SOLVENTS AND FLAMMABLES

### Part 3 (3)

- In an emergency situation, only the minimum number of workers necessary for the work may be exposed, and the concentration of the flammable gas or vapour must not exceed 20% of the lower explosive limit (LEL).
- Workers must not enter or remain in a work area if more than 10% of the lower explosive limit (LEL) of an explosive substance is present in the atmosphere.
- Ensure that all WHMIS requirements are met.
- When discarding rags that are saturated with flammable solvents, place rags in a metal garbage container with a cover. The rags can generate their own heat and spontaneously combust.
- All flammable substances stored or used at the work area:
  - (a) Will not be in sufficient quantity to produce an explosive atmosphere if inadvertently released,
  - (b) Are not stored within 30 metres of an underground shaft,
  - (c) Are not stored in the immediate vicinity of the air intake of:
    - (i) A ventilation supply system,
    - (ii) An internal combustion engine,
    - or (iii) The fire box of a fired heater or furnace
  - (d) Flammable and combustible substances must be stored in areas away from substances that may cause a reaction, such as an oxygen tank.
  - (d) are stored only in containers approved to CSA Standard B376 • -M1980 (R2008), Portable Containers for Gasoline and Other Petroleum Fuels, NFPA Standard 30, Flammable and Combustible Liquids Code, 2008 Edition, or ULC Standard C30 • -1995, Containers, Safety, if manufactured on or after July 1, 2009.



## Safe Work Practice Part 3 (4)

### WORKING AROUND OVERHEAD POWER LINES

A hazard assessment must be conducted to identify hazards before working near high voltage electricity. Safe work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contact. PPE requirements within the arc flash boundary shall be determined by the hazard assessment.

All workers and equipment must maintain a distance of 7 meters from energized overhead power lines.

If workers or equipment must work at distances less than the safe limit of approach listed in the Alberta Occupational Health and Safety manual, the operator of the power line must be notified in order to assist in protecting workers involved.

Acquire permits necessary.

Ensure that earth or other materials are not placed under or beside overhead power lines which could reduce the safe clearance limit.

Any equipment or load that is transported under energized power line, total height, including equipment transporting it must be less than 4.15 meters.

### CONTACT WITH AN ENERGIZED POWER LINE

When an energized power line is contacted:

- The operator should always remain in the machine. Do not touch anything that could be in contact with the ground.
- Warn others to stay back. Tell them not to touch the load, lines, boom, bucket or anything else connected to the equipment.
- Have someone call the utility company and fire department.
- If possible, break contact by backing the machine out of the power lines.
- If a fire erupts, and you **must** abandon the machine, jump clear, **never** step down to avoid becoming part of a lethal circuit.
- Jump with both feet together and hop away from the machine. Do not walk, because the voltage differential in soil can vary. Stepping between these invisible high and low voltage areas can cause fatal injuries.

Cont.....



## WORKING AROUND OVERHEAD POWER LINES

### Safe Work Practice Part 3 (4)

#### **Warning:**

Most power lines have time relays. After breakers are tripped, relays may be triggered to re-activate the power and any item or person in contact with it.

When a casualty is in contact with a power line, call the Fire Department immediately to have them perform the rescue.

Know your allowable levels of approach. Have the owner of the utility determine the approach distance.

- Florescent paint or a high visibility tape should mark low-level power lines.
- **Authorized power company employees only shall be permitted to lift overhead power lines to permit a load to pass below.**
- Always be alert of overhead power lines and comply with clearance requirements.
- If your vehicle load comes in contact with an overhead line stay in the vehicle and attempt to move the truck away from the power line – if not hooked. If it is necessary to leave the truck (i.e., fire) jump as far from the vehicle as possible and land with both feet together. Hop away only if you are still in danger otherwise stay where you are until help arrives.
- The superintendent is responsible to know the over-all height of all loads.
- The job site superintendent in order to disconnect the power or move lines that are too low must contact the **Power Company**.
- No employee should attempt to tamper with the power lines, at any time.



Safe Work Practice  
Part 3 (5)

## WELDING, CUTTING AND BURNING

### GENERAL

- Ensure that hot work is not begun until:
- Workers who perform Hot Work must be trained, and be qualified to operate the equipment that is producing the Hot Work.
  - (a) a hot work permit is issued indicating the hazards, and
  - (b) if atmospheric testing is required and the frequency which it should be tested
  - (c) there are safe work procedures and precautionary measures in place
  - (d) the protective equipment required is available
  - (e) the hot work location is cleared of all combustible, flammable, or explosive material, dust, gas, or vapour is removed
  - (f) If a flammable substance, in a mixture with air, in an amount exceeding 20 percent of that substance's lower explosive limit for gas or vapours, or (ii) the minimum ignitable concentration for dust.
- Ensure that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired, and dismantled in accordance with the manufacturer's specifications.
- If a welding or allied process is performed above an area where a worker may be present, ensure that adequate means are taken to protect a worker below the operation from sparks, debris, and other falling hazards.
- Before using gas welding or burning equipment, the operator must ensure that the equipment is free from defects, leaks, oil, and grease.
- A worker involved in welding or burning operations must wear: (a) flame resistant work clothing, (b) gauntlet gloves of leather or other suitable material and arm protection, (c) an apron of leather or other suitable material for heavy work, (d) eye and face protection against harmful radiation, particles of molten metal, and while chipping and grinding welds, and (e) substantial safety footwear made of leather or other suitable material.
- Always ensure that adequate ventilation is supplied since hazardous fumes can be created during welding, cutting or burning.
- Workers who may be exposed to radiation from the arc flash will be protected by adequate screens, curtains or partitions or wear suitable eye protection. A screen, curtain or partition near an arc welding operation must be made of or be treated with a flame resistant material.
- Always have firefighting or prevention equipment on hand before starting welding, cutting or burning.

Cont.....



## WELDING, CUTTING AND BURNING

### Safe Work Practice Part 3 (5)

- A welder should never work alone.
- When hot work generates sparks and/or hot slag, a fire watch must be conducted while hot work is underway, and for 30 minutes following completion.
- Check cables and hoses to protect them from slag or sparks.
- A container which may have held a combustible substance must be thoroughly cleaned before any welding or burning operation is carried out on the container. Burning, welding, or other hot work must not be done on any vessel, tank, pipe or structure, or in any place where the presence of a flammable or explosive substance is likely until: (a) tests have been made by a qualified person to ensure the work may be safely performed, and (b) suitable safe work procedures have been adopted, including additional tests made at intervals that will ensure the continuing safety of the workers.
- Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all precautions have been carried out and permits obtained.
- Never enter, weld or cut in a confined space without proper gas tests and a required safety lookout.
- Cutting and welding **MUST NOT** be performed where sparks and cutting slag will fall on cylinders (move all cylinders and all flammables away to one side).
- Open all cylinder valves slowly. The wrench used for opening the cylinder valves should always be on the valve spindle when the cylinder is in use.
- Flashback arresters are to be used on oxygen and acetylene tanks.
- Signs on the shop door specify “Authorized Personnel Only” No one will be admitted into the shop that does not have knowledge of the hazards involved.

### Reference to Safety Regulations OH&S Code:

|           |  |
|-----------|--|
| Part 10   | Fire and Explosive Hazards                                   |
| Part 4    | Chemical Hazards, Biological Hazards and Harmful Substances  |
| Part 11   | First Aid  |
| Part 18-6 | Respiratory Protective Equipment                             |
| Part 18   | Personal Protective Equipment/Eye Protection/Foot Protection |
| Part 29   | WHMIS  |
| Part 25   | Tools, Equipment and Machinery                               |
| Part 26   | Ventilation Systems  |



Safe Work Practice  
Part 3 (6)

## USE OF COMPRESSED AIR

### GENERAL

If not treated with respect, these tools can become a powerful enemy rather than a servant.

- Compressed air must not be used to blow debris or to clear dirt from any workers clothes.
- Ensure that the air pressure has been turned off and the liner pressure relieved before disconnecting the hose or changing tools.
- All hose connectors must be of the quick disconnect pressure release type with a **“SAFETY CHAIN / CABLE”**.
- Wear personal protective equipment such as eye protection and face shields, and ensure other workers in the area are made aware of or have restricted access to the hazard area.
- Hoses must be checked on a regular basis for cuts, bulges, or other damage. Ensure that defective hoses are repaired or replaced before turning on air pressure.
- A proper pressure regulator and relief device must be in the system to ensure that correct desired pressures are maintained.
- The correct air supply hoses must be used for the tool / equipment being used.
- The equipment must be properly maintained according to the manufacturer’s requirements.
- Follow manufacturer’s general instructions and comply with legislated safety requirements.
- Drain moisture from the tank daily or after each use.

Reference to Safety Regulations:

Section 171 (a) – (e)





Safe Work Practice  
Part 3 (7)

## GRINDING

### GENERAL

Severe injury may occur if proper protective equipment is not used and properly maintained.

- Ensure that pedestal and bench grinders are fastened securely
- Ensure that all guards are in place before use
- Check the tool rest for the correct distance from the abrasive wheel, maximum 1/8" or 3mm.
- Replace the grindstone when adjustment of the rest cannot provide 1/8" or 3mm clearance.
- If the wheel has been abused and ground to an angle or grooved, reface the wheel with the appropriate surface tool. Replace worn wheels if you cannot dress it.
- Protect your eyes with goggles or a face shield at all times when grinding.
- Each time a grinding wheel is mounted; the maximum approved speed stamped on the wheel bladder should be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed is not exceeded. A grinding wheel must not be operated at peripheral speed exceeding the manufacturer's recommendations.
- The flanges supporting the grinding wheel should be a maximum of 1/3" the diameter of the wheel, and must fit the shaft rotating speed according to the manufacturer's recommendation.
- Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel.
- Do not stand directly in front of grinding wheel when it is first started.

### List of Identified Hazards:

- **User must wear face shield and safety glasses**
- Protect eyes from flying debris, dust particles
- If the tool rest is not at the correct space, tools could become caught in the grinding wheel and become a flying projectile.
- Check the grinding wheel for any chips or cracks, if any portion of the wheel is chipped or cracked it could break off and send particles flying across the shop.  
Replace discs when inspection indicates any chips or cracks.
- Do not use any grinding wheel that is not rated for the maximum rating of the machine. If the disc is not rated for that speed it could cause it to shatter.
- Grinding on the side of the wheel could weaken the disc and cause it to shatter.  
Use the surface tool to keep the wheel surface flat.

### Reference to Safety Regulations:

Part 25-4 Section 375 Grinding



## USE OF PORTABLE GRINDERS

### Safe Work Practice Part 3 (8)

**Abrasive wheels can cause severe injury, ensure operators demonstrate competency in performing the task safely. Operators that are inexperienced will be provided with training and supervision on the safe and correct use of angle grinders.**

The most common causes of injury to operators and nearby workers from angle grinders are lacerations from attachments that break and become projectiles, and lacerations from angle grinder kickbacks.

Wear safety glasses or goggles, or a face shield (with safety glasses or goggles) to protect against flying particles. Gloves, aprons, CSA approved safety boots, and respiratory protection may be required, depending on the work.

Guards must be provided and adjusted to protect you. Replace damaged guards, if an abrasive wheel breaks while rotating, it can cause a serious injury.

Clean and service grinders according to manufacturers' recommendations to maintain good working condition.

Ensure that a machine will not operate when unattended by checking the dead-man (constant pressure) switch.

## What should you do when using portable grinders?

- Ensure the work area is regularly cleaned and flammable substances are not stored in areas where angle grinders are being used.
- Ensure the work area is adequately ventilated.
- Identify any surface coatings that may be dangerous when worked on. (eg.lead) If surface coatings may pose a health risk to worker, refer to the SDS sheets for proper PPE. (respiratory protection)
- Ensure operators and nearby workers wear appropriate PPE (hearing protection, face shield, safety glasses, CSA approved steel toed work boots, coveralls)
- Ensure the work piece is appropriately supported or secured (clamps)
- Inspect the grinder before use to ensure it is in good condition. Do not use a grinder if the body or cord is damaged. Tag out and remove from service. Place grinder in area designated for repair.
- Ensure that the guard is fitted securely.
- Ensure that the attachments are appropriate for the task being performed and designed for the material being worked on. Inspect all wheels for cracks or defects before mounting. Discard worn or damaged attachments.
- Ensure that the attachment is the correct size for the grinder and the speed rating (RPM) of the attachment is lower than the maximum speed of the grinder.
- Run newly mounted wheels at operating speed for 1 minute before grinding.
- Ensure the auxiliary handle is attached. Grip both handles during use.
- Ensure operators do not apply pressure to the grinder during use.
- Ensure angle grinders are used in a dry environment.
- Keep the power cord away from the grinding wheel and the material being ground.
- Direct sparks away from yourself and co-workers.
- Stand away from the wheel when starting grinders. Warn co-workers to do the same.
- Unplug grinder before changing discs.
- Ensure grinder has stopped turning before putting it down or being moved around the workplace.



## USE OF PORTABLE GRINDERS

Safe Work Practice  
Part 3 (9)

### What should you avoid when using portable grinders?

- Avoid using grinders near flammable materials.
- Do not use attachments that are excessively worn or damaged.
- Do not clamp portable grinders in a vise for grinding hand-held work.
- Do not use any liquid coolants with portable grinders.
- Do not force wheels onto a grinder that is the wrong size or change mounting hole sizes.
- Do not tighten the mounting nut excessively.
- Do not put the grinder on the floor or working surface until the wheel has stopped turning.
- Do not keep any materials close to the grinding wheel when it is not in use.
- Never use the grinder for jobs which it is not designed.

#### Reference to Safety Regulations:

|                       |                                 |
|-----------------------|---------------------------------|
| Part 25 – Section 375 | Grinding                        |
| Part 22 – Section 317 | Safeguards for Machine Failures |
| Part 18 – Section 229 | Eye Protection                  |
| Part 18 – Section 242 | Limb and Body Protection        |



Safe Work Practice  
Part 3 (10)

## USE OF PORTABLE LADDERS

### GENERAL

- Workers shall be provided training on ladder safety before using a ladder.
- Ladders can be used safely if they are given the respect they deserve.
- Before using any ladder, make sure that it is in good condition and is the right ladder for the job to be done. (e.g. missing feet pads, bent, defective latches)
- Workers must not use a ladder to enter or exit an elevated or sublevel work area if the area has another safe and recognizable way to enter or exit.
- When setting up the ladder, secure the base and “walk” the ladder up into place. Get help if you need to use the big extension ladders.
- The ladder should be set at the proper angle of one (1) horizontal to every four (4) vertical.
- Portable ladders in use shall be secured against movement and placed on a stable base. Ensure that: (a) a portable ladder is equipped with non-slip feet; (b) and secured against accidental movement during use.
- When in position, the ladder should protrude one (1) metre above the intended landing point.
- Workers shall not work from the top two rungs of a ladder.
- Do not overreach while on the ladder. It is easier and safer to climb down and move the ladder over a few feet to a new position.
- Ensure that: (a) an extension ladder is equipped with locks that securely hold the sections of the ladder in the extended position; (b) where a section of an extension ladder is extended, the section that is extended overlaps another section for at least one metre; (c) an extension ladder consisting of two sections does not exceed 14.6 metres in length; and (d) an extension ladder consisting of more than two sections does not exceed 20 metres in length.
- Only CSA standard ladders are to be used.
- Always face the ladder when using it. Grip it firmly and use the three-point contact method when moving up or down.
- The minimum overlap on an extension ladder should be one (1) metre unless the manufacturer specifies the overlap.
- Keep both metal and wood ladders, away from electrical sources.
- If the ladder is damaged discard as soon as possible, and do not paint wooden ladders.
- No material/equipment shall be carried up/down ladders.
- Reference: O. H. & S. Safety Code – Part 8-5 Portable Ladders
- Also see “Safe Work Practice for Inspection of Ladders” pg. 16



# Inspection of Ladders

## Part 3 (12)

What should you look for when inspecting any ladder?

- Missing or loose steps or rungs (they are loose if you can move them by hand)
- Damaged or worn non-slip feet
- Loose nails, screws, bolts or nuts
- Loose or faulty spreaders, locks, and other metal parts in poor repair
- Rot, decay, or warped rails in wooden ladders
- Cracks and exposed fibreglass in fibreglass ladders
- Cracked, split, worn or broken rails, braces, steps or rungs
- Sharp edges on rails and rungs
- Rough or splintered surfaces
- Corrosion, rust, oxidation and excessive wear, especially on treads
- Twisted or distorted rails. Check ladders for distortion by sighting along the rails. Using a twisted or bowed ladder is hazardous.
- Missing identification labels

What other things should I look for when inspecting step ladders?

- Wobble
- Loose or bent hinges and hinge spreaders
- Broken stop on a hinge spreader

What should you look for when inspecting extension ladders?

- Loose, broken or missing extension locks
- Defective locks that do not seat properly when ladder is extended
- Sufficient lubrication of working parts
- Defective cords, chains and ropes
- Missing or defective pads or sleeves

What should you do after inspecting any ladder?

- Tag any defective ladders and take them out of service
- Clean fibreglass ladders every three months. Spray lightly with a clear lacquer or paste wax
- Protect wooden ladders with a clear sealer or wood preservative
- Replace worn or frayed ropes on extension ladders
- Lubricate pulleys on extension ladders regularly

What are some things you should not do after inspecting ladders?

- Do not make temporary repairs
- Do not try to straighten or use bent or bowed ladders



## Safe Work Practice Part 3 (11)

### USE OF STEP LADDERS

#### GENERAL

As with all ladders, make sure that the stepladder is in good condition, and is the right ladder for the job to be done. (see “Inspection of Ladders” below)

- Stepladders are to be used only on clean and even surfaces.
- No work is to be done from the top two steps of a stepladder, counting the top platform as a rung.
- When in an open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.
- The stepladder is only to be used in the fully opened position with the spreader bars locked.
- Do not overreach while on the ladder. Climb down and move the ladder over to a new position.
- Only CSA standard ladders are to be used.
- If the ladder is damaged discard as soon as possible.
- Any ladder used during the servicing of energized or potentially energized electrical equipment must be made of non-conductive material.
- An employer shall ensure that a stepladder: (a) is not more than six metres high when set for use; (b) has legs that are securely held in position by means of metal braces or an equivalent rigid support; and (c) when in use, has a front section slope at an angle of one horizontal to six vertical.

#### INSPECTION OF LADDERS

What to Look For:

- Missing or loose steps or rungs (if they are loose or you can move them by hand)
- Damaged or worn non-slip feet
- Loose nails, screws, bolts or nuts
- Loose or faulty spreaders, locks, and other metal parts in poor repair
- Rot, decay or warped rails in wooden ladders
- Cracks and exposed fibreglass in fiberglass ladders
- Cracked, split, worn or broken rails, braces, steps or rungs
- Sharp edges on rails or rungs
- Rough or splintered surfaces
- Corrosion, rust, oxidation and excessive wear, especially on treads
- Twisted or distorted rails.
- Missing identification labels
- Loose or bent hinges, loose or broken extension locks, defective locks,
- A broken stop on a hinge spreader
- Wobble

What Should You Do After Inspecting Any Ladder?

- Do not make temporary or makeshift repairs
- Do not try to straighten or use bent or bowed ladders
- **TAG ANY DEFECTIVE LADDERS AND REMOVE FROM SERVICE IMMEDIATELY**



Safe Work Practice  
Part 3 (13)

## PROPER LIFTING PRACTICES – HOISTING

**Any lifting device must be operated by a competent worker that has been authorized to operate the equipment.**

### EVALUATING THE LOAD

Determine the weight of the object or load before a lift to make sure that lifting equipment can operate within its capabilities.

### BALANCE LOADS

Estimate the center of gravity or point of balance. The lifting device should be positioned immediately above the estimated center of gravity.

### LANDING THE LOAD

- Ensure that a tag line is used to control the load.
- Prepare a place to land the load, lower the load gently and make sure it is stable before slackening the sling or chain. Loads to be unhooked by a worker must be safely landed and supported before the rigging is detached.
- Do not exceed the rated capacity of hoisting equipment. The safe working load must be clearly marked on rigging equipment, the maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, is legibly and conspicuously marked on the rigging. If it is not practicable to mark the rigging, ensure the maximum load rating of the rigging is available to the workers at the work site.
- Forklifts should have a load rating chart available to the operator.
- Rigging and slinging work may only be performed by competent workers. Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals authorized by the Board for controlling hoisting operations.
- All lifting equipment must have an inspection log book to record pre-use inspections, maintenance, and any deficiencies that may affect the safe operation of the lifting equipment.
- Any defects found during an inspection must be recorded and reported to a supervisor who will determine the course of action to be taken. If a defect affects the safe operation of the equipment, it must be remedied prior to use.
- Select proper rated slings and **NEVER** exceed the working load limits.
- Use slings of proper reach. Never shorten a line by twisting or knotting. With chain slings, never use bolts or nuts.

Cont.....





## PROPER LIFTING PRACTICES – HOISTING

### Safe Work Practice Part 3 (13)

- Never permit anyone to ride the lifting hook or the load.
- Make sure all personnel stand clear from the load being lifted.
- If practicable, the operator must not pass a load over a person. If no alternative exists, only then; after the person has been warned of the danger by an audible alarm or other effective means. A person working at a workplace must not stand or pass beneath a suspended load.
- Never work under a suspended load, unless the load is properly supported.
- Never leave a load suspended when the hoist or crane is unattended.
- Inspect all slings thoroughly before use and after use and maintain them in good condition. A sling shall be permanently removed from service if it is damaged or worn.
- Inspect each chain or sling for cuts, nicks, bent links, bent hooks, etc. before each use. If in doubt, don't use it. Worn, damaged, or deformed hooks or any other rigging shall be permanently removed from service if the wear or damage exceeds the specifications allowed by the manufacturer. See sections 305-309 of the AB OHS Code for specific rejection criteria.
- Ensure that hooks are equipped with safety latches and are in good working condition.
- Ensure that the signaller is properly identified and understands techniques of proper signalling. Maintain eye contact with the operator when giving directions. When the operator does not have a clear and unobstructed view of the hoisting operation, the operator must act only on the directions of a qualified signaller who has a clear view of the things the operator cannot see. The operator must stop the operation of the equipment on receiving a stop signal from any person. The operator must not move the lifting equipment until receiving direction from a signaller stationed in a safe position in continuous view of the operator and having an unobstructed view of the area into which the lift will move.

### Reference to Safety Regulations:

|                                    |                          |
|------------------------------------|--------------------------|
| Part 6                             | Materials Hoists         |
| Part 6 – Section 76, 82(1), 87     | Cantilever Hoists        |
| Part 6 – Section 98, 99            | Chimney Hoists           |
| Part 6 - Section 108 (1) – 111 (3) | Underground Shaft Hoists |
| Part 6 – Section 97 (1) – (7)      | Roofer's Hoists          |
| Part 6 - Section 80                | Hand-Operated Hoists     |



Safe Work Practice  
Part 3 (14)

## **SAFE OPERATION OF HOISTS**

### **DAILY CHECK LIST:**

1. CHECK operation of brakes for excessive drift.
2. CHECK operation of limit switches.
3. CHECK for damaged hooks, ropes and chains.
4. KEEP load chain or rope clean and well lubricated.
5. CHECK the wire rope or chain for improper seating, twisting, kinking wear or other defects before operating the hoists.
6. CHECK wire rope for broken wires. Evidence of kinking, crushing, bird caging and general wear.



Safe Work Practice  
Part 3 (15)

## **FUELLING EQUIPMENT**

### **NO SMOKING, OR USE OF CELL PHONES WHEN REFUELLING OR AROUND FUEL TANKS**

#### **Safety tips for handling fuel**

- Only store the minimum amount of gasoline needed.
- Store containers at room temperature, away from sources of heat or ignition (e.g., sun, furnace, hot water tank, portable heaters, sparks, flames, etc.), and in a well ventilated area.
- Remember, gasoline vapours are flammable, are heavier than air, and can travel long distances to an ignition source.
- Never siphon gasoline by mouth. It is harmful and may cause death if swallowed. If ingested, do not induce vomiting. Get medical help immediately.
- Do not smoke.
- Avoid prolonged or repeated skin contact with fuel. Wash skin thoroughly with soap and water in case of contact.
- Avoid breathing vapours or mists.
- Remove any clothing that is wet with fuel. Allow fuel to evaporate completely outdoors before washing. Thoroughly clean clothing before reuse.
- Never use gasoline as a cleaning agent.

#### **What should I do when fueling vehicles?**

- Identify and know how to operate emergency fuel cut offs.
- Know location and operation of fire extinguishers.
- Always shut off engine while fueling.
- Remove twists and small loops in the fuel delivery hose. These can cause the hose to fail or catch on bumpers as vehicles move around the pump islands.
- Insert delivery hose nozzle firmly into the fill pipe of the vehicle. Maintain contact with the tank until the delivery is complete to reduce possibility of static electricity sparking.
- Avoid spills by not over-filling the tank.
- Reinstall the cap on the fill pipe when delivery is complete. Hang the hose in place on the pump.
- Do not use the gas cap or other objects to hold the fuel delivery nozzle open.

#### **How do I fill a portable gas container?**

- Turn off all sources of ignition (engine, lawn mower, etc.).
- Use only approved portable containers (CSA or ULC approved).
- Place the container on the ground.
- Keep the fuel nozzle in contact with the container to avoid static electricity.
- Avoid breathing vapours while filling.
- Fill the container slowly.
- Do not over-fill a container. Leave 5% extra space to allow for expansion.



## MOTOR VEHICLE OPERATION

### Safe Work Practice

#### Part 3 (16)

**Always, Always use your best common judgement** and refer to specific Milepost rules and instructions.

1. **Be alert.** Knowing everything going on around you. Always look well ahead down the road and around your vehicle. Especially in heavy traffic, always plan an escape route. Be aware of who is in front of you, beside you and behind you at all times.
2. **Drivers must remain focused and follow all distracted driving laws.** Do not use cell phone while driving, no texting, emailing, or use of electronic devices. Do not enter information to GPS while driving. Reading, writing and personal grooming are all considered distracted driving.
3. **Authorized drivers must operate Milepost vehicles in a professional and courteous manner** and promote the principles of defensive driving.
4. **Be well rested.** Tiredness is equal to impairment.
5. **Check weather reports.** Be aware of weather conditions prior to departing on a trip, and check the reports as often as possible while travelling. Keep your eye on the outside temperature to watch for changing road conditions. Knowing what to expect helps you to be better prepared for bad weather driving and necessary precautions to be taken.
6. **Avoid Traffic.** Whenever possible, avoid traveling at high volume traffic and peak traffic times. The more traffic, the greater the odds of an accident.
7. **Be extra cautious at night.** Always exercise extra caution at night, especially in tight maneuvering situations. Be alert, be aware, move slowly and cautiously.
8. **Leave room in front of your vehicle.** Always leave plenty of room in front of your vehicle. This buffer zone or cushion in front of your vehicle, will protect you and your vehicle. Usually, if anything goes wrong, there's a good chance it will be ahead of you. The more space you have in front of you and your vehicle, the more time you will have to 'correct' and slow down if necessary.
9. **Change lanes as little as possible.** Pick a lane and stay in it. If you find it necessary to change lanes, move over very carefully, being aware of your blind spots and constantly check your mirrors.
10. **Slow down.** The most important of driving safety tips! Big trucks do not corner like a Ferrari, nor do they handle like one. Big trucks should take corners and ramps very slowly. Travel slowly and maintain control.
11. **Take breaks and check your load.** Stop and stretch yourself as needed. Drivers must inspect cargo and cargo securement within the first 80 km. after beginning a trip. Do a walk around truck and trailer. Look for soft tires, air leaks, check under the truck for any dripping coolant or oil. Drivers must re-inspect cargo when change of duty status occurs, after driving for 3 hrs. or after driving 240 km.
12. **All authorized drivers, while operating or travelling as a passenger, must wear seat belts at all times.**

**Divers must comply with all transportation safety laws and rules of the road; obey all posted speed limits and reduce speed according to road, weather, visibility conditions and vehicle type.**

- **All authorized drivers must complete daily logs, which will be turned in to the office at the end of the cycle.**
- Company vehicles shall be maintained regularly.
- Pre and post trip inspections shall be performed.
- Any deficiency will be reported as soon as possible, if the defect prevents the safe operation of the vehicle, it must be corrected prior to any trip.
- The possession and/or consumption of alcohol, illegal drugs, or the misuse of prescription drugs are strictly forbidden while driving Milepost vehicles or equipment. Refer with the Milepost Drug and Alcohol Policy.

A survival kit consisting of the following equipment is recommended for all vehicles: **Axe – Shovel – Gas line de-icer – Booster cables – Matches – Towrope – Blanket – Candles**



## VEHICLE BACKING PROCEDURES

### Safe Work Practice

#### Part 3 (17)

Backing vehicles is a very hazardous undertaking. There are many accidents and injuries which result from improper backing practices. Municipality vehicles of all types are especially hazardous because of the many blind spots interfering with the driver's ability to see hazards.

To reduce the risk of accident and injury, you should have standard operating and training guidelines which mirror the following recommended practices.

#### **A) General Rules**

1. If you can avoid backing, don't do it!
2. Before backing check that windows and mirrors are clean to ensure visibility
3. Never be in a hurry when backing.
4. If there is not spotter available:
  - i. Reconsider backing up. Is it really necessary?
  - ii. Make a reasonable attempt to get someone to act as a spotter.
  - iii. If a spotter cannot be obtained, get out of the unit and walk around the unit completing a "circle of safety" and survey the backing area. Before proceeding to back unit, be sure to also check overhead clearance.
5. Give a final warning of two horn blasts

#### **B) Driver Responsibilities**

1. Bring the unit to a complete stop.
2. Roll window down completely.
3. Make visual and verbal contact with the spotter. "If you cannot see or hear the spotter, do not backup!"
4. Driver and spotter must establish and continue eye contact in the mirror at all times.
5. Drivers must have a thorough knowledge of spotter hand signals.
6. The spotter hand signals to the driver indicating it is safe to begin backing.
7. The driver gives a two blast warning on the horn just prior to backing.

Cont.....



Safe Work Practice  
Part 3 (17)

**C) Spotter Responsibilities:**

1. Conduct a “circle of safety” and survey the backing area and all other sides of the vehicle checking for hazards. Before proceeding to back unit, be sure to also check overhead clearance.
2. Communicate any observed hazards to the driver.
3. Place yourself eight to ten feet to the left rear of the unit.
4. Establish visual and verbal contact with the driver and continue eye to eye contact in the mirror at all times.
5. Be familiar with hand signals before allowing backing manoeuvres to begin.
6. Stop the driver if any hazards are observed or if you are uncertain of the direction that the driver is manoeuvring.



## Responsibilities of Equipment Operators

### Safe Work Practice

#### Part 3 (18)

- Only trained qualified employees are to operate equipment.
- When learning a new piece of equipment it is required that the operator review all company procedures and practices regarding that specific piece of equipment, as well as the operators manual to learn all manufacturers safety and shut down procedures.
- Pre-use inspections must be performed, check all manufacturers' safety features to ensure they are functional.
- If the equipment is equipped with a seat belt the person operating the equipment must wear the seat belt.
- If an inspection indicates that the equipment is hazardous, report the condition immediately to your supervisor. The equipment must not be operated until the defect or condition is corrected.
- Also check all lifting equipment chains, slings, hooks, lifting plates, etc. and controls daily before operating equipment.
- Always use three points of contact when entering or exiting equipment.
- Mobile equipment must be equipped with a roof, cab or protective screen to protect the operator from objects falling from above.
- All lifts or moves should be pre-planned before starting work, all workers involved in the lift should be involved in the pre-planning. Do a visual inspection of the work area as well as a hazard assessment and update as needed.
- 
- All operators must be familiar with standard hand signals – While operating if a clear hand signal is not given, understood and acknowledged, the operator must stop and not continue until clear direction is given and understood.
- Operator must maintain eye contact with signaller at all times during a lift or move.
- If at any time an operator loses site of their signaller during a lift or move they must stop until they have regained eye contact.
- Operator must ensure that the load does not exceed the rated lifting capacity of the equipment.
- During loading, unloading or any lift or move ensure that only workers required to do the job are present. Anyone not required must leave the work area.
- If there is no spotter available stop and do a walk around before backing up sound, horn twice then proceed.  
**(REFERE TO SAFE WORK PRACTICE FOR BACKING PROCEDURES FOR MORE INFORMATION)**
- Always put equipment in park, set brakes, turn off engine, and perform any other shut down procedures required. Then lockout controls and attachments before working on or around equipment.
- Operator must not leave the controls of mobile equipment unattended unless the equipment is secured against unintentional movement and any suspended or elevated part of the equipment is landed.
- Never leave a load unattended.

**NO ONE SHOULD EVER PASS UNDER A SUSPENDED LOAD FOR ANY REASON. NO EXCEPTIONS.**



## Responsibilities of Signallers and Spotters

### Safe Work Practice Part 3 (19)

Whenever moving a vehicle in a direction with an obstructed view, or if the vehicle has extended components (such as a boom or crane) a spotter will be used.

It is the responsibility of the spotter to watch out for others as well as for himself, and make sure the vehicle doesn't damage property.

Both the operator and the spotter are responsible to preplan any lifts or moves of materials and products and to also complete a hazard assessment prior to all lifts. The hazard assessment must be reviewed and updated as tasks or conditions change. Be sure all personnel involved in the process are included in the review/update.

- A signaler/spotter must be trained and competent in the use of hand signals and understand the effects of blind spots and know how to control them.
- The spotter must conduct a survey of the backing area and all other sides of the vehicle checking for hazards. Before proceeding to back unit or perform a lift also check the overhead clearance.
- Place yourself 8-10 feet to the left rear of the unit.
- Establish visual and verbal contact with the driver and maintain eye contact. When backing, maintain eye contact in the left rear mirror at all times.
- Communicate any observed hazard to the driver.
- Stop the driver if any hazards are observed or if you are uncertain of the direction that the driver is moving.
- The spotter should be sure that not they or anyone else ever enter a blind spot during a lift/move.
- For every move/lift there is to be only one identified spotter.
- The spotter must maintain a clear view of the path to be traveled by both the equipment and the load. If spotter is unable to see the path to be travelled and maintain eye contact with the operator, additional spotters can be used but **ONLY ONE SIGNALLER** at any time.
- The spotter must maintain continuous eye contact and be able to communicate clearly with the operator through the use of standard hand signals at all times while the equipment/vehicle is moving or a load is hooked up.
- When the spotter needs to move in order to see clearly he must be sure that the operator is aware of the movement and can still clearly see him.
- The signaller and spotters must all remain alert and aware of their surroundings in order to recognize and deal with any potential hazards or dangerous situations such as objects or people in the way, unstable ground or sifting and unstable loads.
- The signaller or spotters must alert all other workers in the area of the approaching vehicle or equipment.
- The spotter must alert the operator to any hazards along the path of travel.
- Always use a tag line when lifting or moving a load no matter how short the distance.
- **Always be sure that you can be seen**, wear a fluorescent vest or other reflective clothing.

**IT IS EVERYONES RESPONSIBILITY TO ALERT THE OPERATOR OR SIGNALLER OF A POTENTIALLY DANGEROUS SITUATION AND STOP IT BEFORE IT HAPPENS.**





Safe Work Practice  
Part 3 (20)

## **OPERATION OF GRAVEL TRUCK AND PUP**

- Equipment is to be operated by authorized personnel only, with the proper license and certification for the vehicle being operated.
- Do a walk around visual inspection, checking tires, hydraulic hoses, connections, etc.
- Pre-trip inspection report to be completed.
- Check fluid levels prior to initial start-up each day.
- Check to see if tires need re-torquing. Re-torque tires during regular maintenance.
- Tire pressure must be at 100 psi in both truck and trailer.
- Check brakes, in forward and reverse. Be sure all warning devices and backup alarms are fully functional.
- Make sure pup is in the locked position before leaving the yard.
- Drive to gravel pit to get load of gravel.
- Once at pit area, obtain contact with the pit operator on radio, he will then give further instructions as to where to go.
- When loading of gravel is complete, roll tarp down to cover gravel.
- Be sure to clear any excess gravel from the truck body and hitch before travelling.
- When dumping load of gravel, be sure tarp is rolled up.
- Release latch prior to lifting box.
- All vehicles will be driven in a safe manner and within posted speed limits.
- Do a post trip inspection upon return, note any defects and report them to management as soon as possible.



# Inspection of Ladders

## Part 3 (12)

What should you look for when inspecting any ladder?

- Missing or loose steps or rungs (they are loose if you can move them by hand)
- Damaged or worn non-slip feet
- Loose nails, screws, bolts or nuts
- Loose or faulty spreaders, locks, and other metal parts in poor repair
- Rot, decay, or warped rails in wooden ladders
- Cracks and exposed fibreglass in fibreglass ladders
- Cracked, split, worn or broken rails, braces, steps or rungs
- Sharp edges on rails and rungs
- Rough or splintered surfaces
- Corrosion, rust, oxidation and excessive wear, especially on treads
- Twisted or distorted rails. Check ladders for distortion by sighting along the rails. Using a twisted or bowed ladder is hazardous.
- Missing identification labels

What other things should I look for when inspecting step ladders?

- Wobble
- Loose or bent hinges and hinge spreaders
- Broken stop on a hinge spreader

What should you look for when inspecting extension ladders?

- Loose, broken or missing extension locks
- Defective locks that do not seat properly when ladder is extended
- Sufficient lubrication of working parts
- Defective cords, chains and ropes
- Missing or defective pads or sleeves

What should you do after inspecting any ladder?

- Tag any defective ladders and take them out of service
- Clean fibreglass ladders every three months. Spray lightly with a clear lacquer or paste wax
- Protect wooden ladders with a clear sealer or wood preservative
- Replace worn or frayed ropes on extension ladders
- Lubricate pulleys on extension ladders regularly

What are some things you should not do after inspecting ladders?

- Do not make temporary repairs
- Do not try to straighten or use bent or bowed ladders



## Safe Work Practice Part 3 (11)

### USE OF STEP LADDERS

#### GENERAL

As with all ladders, make sure that the stepladder is in good condition, and is the right ladder for the job to be done. (see “Inspection of Ladders” below)

- Stepladders are to be used only on clean and even surfaces.
- No work is to be done from the top two steps of a stepladder, counting the top platform as a rung.
- When in an open position ready for use, the incline of the front step section shall be one (1) horizontal to six (6) vertical.
- The stepladder is only to be used in the fully opened position with the spreader bars locked.
- Do not overreach while on the ladder. Climb down and move the ladder over to a new position.
- Only CSA standard ladders are to be used.
- If the ladder is damaged discard as soon as possible.
- Any ladder used during the servicing of energized or potentially energized electrical equipment must be made of non-conductive material.
- An employer shall ensure that a stepladder: (a) is not more than six metres high when set for use; (b) has legs that are securely held in position by means of metal braces or an equivalent rigid support; and (c) when in use, has a front section slope at an angle of one horizontal to six vertical.

#### INSPECTION OF LADDERS

What to Look For:

- Missing or loose steps or rungs (if they are loose or you can move them by hand)
- Damaged or worn non-slip feet
- Loose nails, screws, bolts or nuts
- Loose or faulty spreaders, locks, and other metal parts in poor repair
- Rot, decay or warped rails in wooden ladders
- Cracks and exposed fibreglass in fiberglass ladders
- Cracked, split, worn or broken rails, braces, steps or rungs
- Sharp edges on rails or rungs
- Rough or splintered surfaces
- Corrosion, rust, oxidation and excessive wear, especially on treads
- Twisted or distorted rails.
- Missing identification labels
- Loose or bent hinges, loose or broken extension locks, defective locks,
- A broken stop on a hinge spreader
- Wobble

What Should You Do After Inspecting Any Ladder?

- Do not make temporary or makeshift repairs
- Do not try to straighten or use bent or bowed ladders
- **TAG ANY DEFECTIVE LADDERS AND REMOVE FROM SERVICE IMMEDIATELY**



Safe Work Practice  
Part 3 (13)

## **PROPER LIFTING PRACTICES – HOISTING**

**Any lifting device must be operated by a competent worker that has been authorized to operate the equipment.**

### **EVALUATING THE LOAD**

Determine the weight of the object or load before a lift to make sure that lifting equipment can operate within its capabilities.

### **BALANCE LOADS**

Estimate the center of gravity or point of balance. The lifting device should be positioned immediately above the estimated center of gravity.

### **LANDING THE LOAD**

- Ensure that a tag line is used to control the load.
- Prepare a place to land the load, lower the load gently and make sure it is stable before slackening the sling or chain. Loads to be unhooked by a worker must be safely landed and supported before the rigging is detached.
- Do not exceed the rated capacity of hoisting equipment. The safe working load must be clearly marked on rigging equipment, the maximum load rating of the rigging, as determined by the rigging manufacturer or a professional engineer, is legibly and conspicuously marked on the rigging. If it is not practicable to mark the rigging, ensure the maximum load rating of the rigging is available to the workers at the work site.
- Forklifts should have a load rating chart available to the operator.
- Rigging and slinging work may only be performed by competent workers. Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals authorized by the Board for controlling hoisting operations.
- All lifting equipment must have an inspection log book to record pre-use inspections, maintenance, and any deficiencies that may affect the safe operation of the lifting equipment.
- Any defects found during an inspection must be recorded and reported to a supervisor who will determine the course of action to be taken. If a defect affects the safe operation of the equipment, it must be remedied prior to use.
- Select proper rated slings and **NEVER** exceed the working load limits.
- Use slings of proper reach. Never shorten a line by twisting or knotting. With chain slings, never use bolts or nuts.

Cont.....



## PROPER LIFTING PRACTICES – HOISTING

### Safe Work Practice Part 3 (13)

- Never permit anyone to ride the lifting hook or the load.
- Make sure all personnel stand clear from the load being lifted.
- If practicable, the operator must not pass a load over a person. If no alternative exists, only then; after the person has been warned of the danger by an audible alarm or other effective means. A person working at a workplace must not stand or pass beneath a suspended load.
- Never work under a suspended load, unless the load is properly supported.
- Never leave a load suspended when the hoist or crane is unattended.
- Inspect all slings thoroughly before use and after use and maintain them in good condition. A sling shall be permanently removed from service if it is damaged or worn.
- Inspect each chain or sling for cuts, nicks, bent links, bent hooks, etc. before each use. If in doubt, don't use it. Worn, damaged, or deformed hooks or any other rigging shall be permanently removed from service if the wear or damage exceeds the specifications allowed by the manufacturer. See sections 305-309 of the AB OHS Code for specific rejection criteria.
- Ensure that hooks are equipped with safety latches and are in good working condition.
- Ensure that the signaller is properly identified and understands techniques of proper signalling. Maintain eye contact with the operator when giving directions. When the operator does not have a clear and unobstructed view of the hoisting operation, the operator must act only on the directions of a qualified signaller who has a clear view of the things the operator cannot see. The operator must stop the operation of the equipment on receiving a stop signal from any person. The operator must not move the lifting equipment until receiving direction from a signaller stationed in a safe position in continuous view of the operator and having an unobstructed view of the area into which the lift will move.

### Reference to Safety Regulations:

|                                    |                          |
|------------------------------------|--------------------------|
| Part 6                             | Materials Hoists         |
| Part 6 – Section 76, 82(1), 87     | Cantilever Hoists        |
| Part 6 – Section 98, 99            | Chimney Hoists           |
| Part 6 - Section 108 (1) – 111 (3) | Underground Shaft Hoists |
| Part 6 – Section 97 (1) – (7)      | Roofer's Hoists          |
| Part 6 - Section 80                | Hand-Operated Hoists     |



Safe Work Practice  
Part 3 (14)

## **SAFE OPERATION OF HOISTS**

### **DAILY CHECK LIST:**

1. CHECK operation of brakes for excessive drift.
2. CHECK operation of limit switches.
3. CHECK for damaged hooks, ropes and chains.
4. KEEP load chain or rope clean and well lubricated.
5. CHECK the wire rope or chain for improper seating, twisting, kinking wear or other defects before operating the hoists.
6. CHECK wire rope for broken wires. Evidence of kinking, crushing, bird caging and general wear.



Safe Work Practice  
Part 3 (15)

## **FUELLING EQUIPMENT**

### **NO SMOKING, OR USE OF CELL PHONES WHEN REFUELLING OR AROUND FUEL TANKS**

#### **Safety tips for handling fuel**

- Only store the minimum amount of gasoline needed.
- Store containers at room temperature, away from sources of heat or ignition (e.g., sun, furnace, hot water tank, portable heaters, sparks, flames, etc.), and in a well ventilated area.
- Remember, gasoline vapours are flammable, are heavier than air, and can travel long distances to an ignition source.
- Never siphon gasoline by mouth. It is harmful and may cause death if swallowed. If ingested, do not induce vomiting. Get medical help immediately.
- Do not smoke.
- Avoid prolonged or repeated skin contact with fuel. Wash skin thoroughly with soap and water in case of contact.
- Avoid breathing vapours or mists.
- Remove any clothing that is wet with fuel. Allow fuel to evaporate completely outdoors before washing. Thoroughly clean clothing before reuse.
- Never use gasoline as a cleaning agent.

#### **What should I do when fueling vehicles?**

- Identify and know how to operate emergency fuel cut offs.
- Know location and operation of fire extinguishers.
- Always shut off engine while fueling.
- Remove twists and small loops in the fuel delivery hose. These can cause the hose to fail or catch on bumpers as vehicles move around the pump islands.
- Insert delivery hose nozzle firmly into the fill pipe of the vehicle. Maintain contact with the tank until the delivery is complete to reduce possibility of static electricity sparking.
- Avoid spills by not over-filling the tank.
- Reinstall the cap on the fill pipe when delivery is complete. Hang the hose in place on the pump.
- Do not use the gas cap or other objects to hold the fuel delivery nozzle open.

#### **How do I fill a portable gas container?**

- Turn off all sources of ignition (engine, lawn mower, etc.).
- Use only approved portable containers (CSA or ULC approved).
- Place the container on the ground.
- Keep the fuel nozzle in contact with the container to avoid static electricity.
- Avoid breathing vapours while filling.
- Fill the container slowly.
- Do not over-fill a container. Leave 5% extra space to allow for expansion.



## MOTOR VEHICLE OPERATION

### Safe Work Practice

#### Part 3 (16)

**Always, Always use your best common judgement** and refer to specific Milepost rules and instructions.

1. **Be alert.** Knowing everything going on around you. Always look well ahead down the road and around your vehicle. Especially in heavy traffic, always plan an escape route. Be aware of who is in front of you, beside you and behind you at all times.
2. **Drivers must remain focused and follow all distracted driving laws.** Do not use cell phone while driving, no texting, emailing, or use of electronic devices. Do not enter information to GPS while driving. Reading, writing and personal grooming are all considered distracted driving.
3. **Authorized drivers must operate Milepost vehicles in a professional and courteous manner** and promote the principles of defensive driving.
4. **Be well rested.** Tiredness is equal to impairment.
5. **Check weather reports.** Be aware of weather conditions prior to departing on a trip, and check the reports as often as possible while travelling. Keep your eye on the outside temperature to watch for changing road conditions. Knowing what to expect helps you to be better prepared for bad weather driving and necessary precautions to be taken.
6. **Avoid Traffic.** Whenever possible, avoid traveling at high volume traffic and peak traffic times. The more traffic, the greater the odds of an accident.
7. **Be extra cautious at night.** Always exercise extra caution at night, especially in tight maneuvering situations. Be alert, be aware, move slowly and cautiously.
8. **Leave room in front of your vehicle.** Always leave plenty of room in front of your vehicle. This buffer zone or cushion in front of your vehicle, will protect you and your vehicle. Usually, if anything goes wrong, there's a good chance it will be ahead of you. The more space you have in front of you and your vehicle, the more time you will have to 'correct' and slow down if necessary.
9. **Change lanes as little as possible.** Pick a lane and stay in it. If you find it necessary to change lanes, move over very carefully, being aware of your blind spots and constantly check your mirrors.
10. **Slow down.** The most important of driving safety tips! Big trucks do not corner like a Ferrari, nor do they handle like one. Big trucks should take corners and ramps very slowly. Travel slowly and maintain control.
11. **Take breaks and check your load.** Stop and stretch yourself as needed. Drivers must inspect cargo and cargo securement within the first 80 km. after beginning a trip. Do a walk around truck and trailer. Look for soft tires, air leaks, check under the truck for any dripping coolant or oil. Drivers must re-inspect cargo when change of duty status occurs, after driving for 3 hrs. or after driving 240 km.
12. **All authorized drivers, while operating or travelling as a passenger, must wear seat belts at all times.**

**Divers must comply with all transportation safety laws and rules of the road; obey all posted speed limits and reduce speed according to road, weather, visibility conditions and vehicle type.**

- **All authorized drivers must complete daily logs, which will be turned in to the office at the end of the cycle.**
- Company vehicles shall be maintained regularly.
- Pre and post trip inspections shall be performed.
- Any deficiency will be reported as soon as possible, if the defect prevents the safe operation of the vehicle, it must be corrected prior to any trip.
- The possession and/or consumption of alcohol, illegal drugs, or the misuse of prescription drugs are strictly forbidden while driving Milepost vehicles or equipment. Refer with the Milepost Drug and Alcohol Policy.

A survival kit consisting of the following equipment is recommended for all vehicles: **Axe – Shovel – Gas line de-icer – Booster cables – Matches – Towrope – Blanket – Candles**





## VEHICLE BACKING PROCEDURES

### Safe Work Practice Part 3 (17)

Backing vehicles is a very hazardous undertaking. There are many accidents and injuries which result from improper backing practices. Municipality vehicles of all types are especially hazardous because of the many blind spots interfering with the driver's ability to see hazards.

To reduce the risk of accident and injury, you should have standard operating and training guidelines which mirror the following recommended practices.

#### **A) General Rules**

1. If you can avoid backing, don't do it!
2. Before backing check that windows and mirrors are clean to ensure visibility
3. Never be in a hurry when backing.
4. If there is not spotter available:
  - i. Reconsider backing up. Is it really necessary?
  - ii. Make a reasonable attempt to get someone to act as a spotter.
  - iii. If a spotter cannot be obtained, get out of the unit and walk around the unit completing a "circle of safety" and survey the backing area. Before proceeding to back unit, be sure to also check overhead clearance.
5. Give a final warning of two horn blasts

#### **B) Driver Responsibilities**

1. Bring the unit to a complete stop.
2. Roll window down completely.
3. Make visual and verbal contact with the spotter. "If you cannot see or hear the spotter, do not backup!"
4. Driver and spotter must establish and continue eye contact in the mirror at all times.
5. Drivers must have a thorough knowledge of spotter hand signals.
6. The spotter hand signals to the driver indicating it is safe to begin backing.
7. The driver gives a two blast warning on the horn just prior to backing.

Cont.....



Safe Work Practice  
Part 3 (17)

**C) Spotter Responsibilities:**

1. Conduct a “circle of safety” and survey the backing area and all other sides of the vehicle checking for hazards. Before proceeding to back unit, be sure to also check overhead clearance.
2. Communicate any observed hazards to the driver.
3. Place yourself eight to ten feet to the left rear of the unit.
4. Establish visual and verbal contact with the driver and continue eye to eye contact in the mirror at all times.
5. Be familiar with hand signals before allowing backing manoeuvres to begin.
6. Stop the driver if any hazards are observed or if you are uncertain of the direction that the driver is manoeuvring.



## Responsibilities of Equipment Operators

### Safe Work Practice

#### Part 3 (18)

- Only trained qualified employees are to operate equipment.
- When learning a new piece of equipment it is required that the operator review all company procedures and practices regarding that specific piece of equipment, as well as the operators manual to learn all manufacturers safety and shut down procedures.
- Pre-use inspections must be performed, check all manufacturers' safety features to ensure they are functional.
- If the equipment is equipped with a seat belt the person operating the equipment must wear the seat belt.
- If an inspection indicates that the equipment is hazardous, report the condition immediately to your supervisor. The equipment must not be operated until the defect or condition is corrected.
- Also check all lifting equipment chains, slings, hooks, lifting plates, etc. and controls daily before operating equipment.
- Always use three points of contact when entering or exiting equipment.
- Mobile equipment must be equipped with a roof, cab or protective screen to protect the operator from objects falling from above.
- All lifts or moves should be pre-planned before starting work, all workers involved in the lift should be involved in the pre-planning. Do a visual inspection of the work area as well as a hazard assessment and update as needed.
- 
- All operators must be familiar with standard hand signals – While operating if a clear hand signal is not given, understood and acknowledged, the operator must stop and not continue until clear direction is given and understood.
- Operator must maintain eye contact with signaller at all times during a lift or move.
- If at any time an operator loses site of their signaller during a lift or move they must stop until they have regained eye contact.
- Operator must ensure that the load does not exceed the rated lifting capacity of the equipment.
- During loading, unloading or any lift or move ensure that only workers required to do the job are present. Anyone not required must leave the work area.
- If there is no spotter available stop and do a walk around before backing up sound, horn twice then proceed.  
**(REFERE TO SAFE WORK PRACTICE FOR BACKING PROCEDURES FOR MORE INFORMATION)**
- Always put equipment in park, set brakes, turn off engine, and perform any other shut down procedures required. Then lockout controls and attachments before working on or around equipment.
- Operator must not leave the controls of mobile equipment unattended unless the equipment is secured against unintentional movement and any suspended or elevated part of the equipment is landed.
- Never leave a load unattended.

**NO ONE SHOULD EVER PASS UNDER A SUSPENDED LOAD FOR ANY REASON. NO EXCEPTIONS.**



## Responsibilities of Signallers and Spotters

### Safe Work Practice Part 3 (19)

Whenever moving a vehicle in a direction with an obstructed view, or if the vehicle has extended components (such as a boom or crane) a spotter will be used.

It is the responsibility of the spotter to watch out for others as well as for himself, and make sure the vehicle doesn't damage property.

Both the operator and the spotter are responsible to preplan any lifts or moves of materials and products and to also complete a hazard assessment prior to all lifts. The hazard assessment must be reviewed and updated as tasks or conditions change. Be sure all personnel involved in the process are included in the review/update.

- A signaler/spotter must be trained and competent in the use of hand signals and understand the effects of blind spots and know how to control them.
- The spotter must conduct a survey of the backing area and all other sides of the vehicle checking for hazards. Before proceeding to back unit or perform a lift also check the overhead clearance.
- Place yourself 8-10 feet to the left rear of the unit.
- Establish visual and verbal contact with the driver and maintain eye contact. When backing, maintain eye contact in the left rear mirror at all times.
- Communicate any observed hazard to the driver.
- Stop the driver if any hazards are observed or if you are uncertain of the direction that the driver is moving.
- The spotter should be sure that not they or anyone else ever enter a blind spot during a lift/move.
- For every move/lift there is to be only one identified spotter.
- The spotter must maintain a clear view of the path to be traveled by both the equipment and the load. If spotter is unable to see the path to be travelled and maintain eye contact with the operator, additional spotters can be used but **ONLY ONE SIGNALLER** at any time.
- The spotter must maintain continuous eye contact and be able to communicate clearly with the operator through the use of standard hand signals at all times while the equipment/vehicle is moving or a load is hooked up.
- When the spotter needs to move in order to see clearly he must be sure that the operator is aware of the movement and can still clearly see him.
- The signaller and spotters must all remain alert and aware of their surroundings in order to recognize and deal with any potential hazards or dangerous situations such as objects or people in the way, unstable ground or sifting and unstable loads.
- The signaller or spotters must alert all other workers in the area of the approaching vehicle or equipment.
- The spotter must alert the operator to any hazards along the path of travel.
- Always use a tag line when lifting or moving a load no matter how short the distance.
- **Always be sure that you can be seen**, wear a fluorescent vest or other reflective clothing.

**IT IS EVERYONES RESPONSIBILITY TO ALERT THE OPERATOR OR SIGNALLER OF A POTENTIALLY DANGEROUS SITUATION AND STOP IT BEFORE IT HAPPENS.**



Safe Work Practice  
Part 3 (20)

## **OPERATION OF GRAVEL TRUCK AND PUP**

- Equipment is to be operated by authorized personnel only, with the proper license and certification for the vehicle being operated.
- Do a walk around visual inspection, checking tires, hydraulic hoses, connections, etc.
- Pre-trip inspection report to be completed.
- Check fluid levels prior to initial start-up each day.
- Check to see if tires need re-torquing. Re-torque tires during regular maintenance.
- Tire pressure must be at 100 psi in both truck and trailer.
- Check brakes, in forward and reverse. Be sure all warning devices and backup alarms are fully functional.
- Make sure pup is in the locked position before leaving the yard.
- Drive to gravel pit to get load of gravel.
- Once at pit area, obtain contact with the pit operator on radio, he will then give further instructions as to where to go.
- When loading of gravel is complete, roll tarp down to cover gravel.
- Be sure to clear any excess gravel from the truck body and hitch before travelling.
- When dumping load of gravel, be sure tarp is rolled up.
- Release latch prior to lifting box.
- All vehicles will be driven in a safe manner and within posted speed limits.
- Do a post trip inspection upon return, note any defects and report them to management as soon as possible.



Safe Work Practice  
Part 3 (21)

## **OPERATION OF MIXER TRUCK**

- Equipment is to be operated by trained, competent personnel only.
- Do a walk around visual inspection, checking tires, etc.
- Check fluid levels prior to initial start up each day.
- Back mixer truck under batch plant discharge hopper (use spotter if necessary)
- Engine must be set to a high rpm to ensure fast enough revolutions for loading.
- Once loaded the truck must continue mixing for a minimum of 5 minutes.
- Set up chute on truck
- Move mixer truck over to concrete shop, slowly drive into shop and position to pour
- Do not start pouring until instructed to do so.
- Gradually pour wall, moving chute site to side.
- Make sure to keep a close watch on person guiding you at all times, they will be giving you signals as to what is required.
- When walls are completed, have someone guide you out of shop when area is clear.
- Mixer truck must be thoroughly washed out at the end of the pour and cleaned off.
- Drain air tanks.



Safe Work Practice  
Part 3 (22)

## OPERATION OF PICKER TRUCK

- Equipment is to be operated by authorized personnel only, with the proper license and certification for the vehicle being operated, or be enrolled in an apprenticeship program and be designated by the company.
- Follow the manufacturer's guidelines for maintenance and inspections.
- Each lifting device must have a log book recording maintenance, at a work site. The employer must ensure that the log book is readily available for inspection at any time. The employer must ensure that the following details are entered into the log book:
  - (a) The date and time when any work was performed on the lifting device.
  - (b) Length of time in lifting service recorded as hours of service if the lifting device is equipped by the manufacturer with an hour meter, or if required by the manufacturer's specifications.
  - (c) All defects or deficiencies and when they were detected.
  - (d) Inspections, including examinations, checks and tests that are performed.
  - (e) Any repairs or modifications performed.
  - (f) Record of Certification.
  - (g) Any incident that may affect the safe operation of the lifting device.
- A hoist, crane, or lifting device shall be inspected by a competent person to determine whether the hoist, crane, or lifting device is in safe working condition: (a) before the hoist, crane, or lifting device is used at the start of each work shift; and (b) at regular intervals as recommended by the manufacturer. Any mobile crane is shall receive an annual inspection, including non-destructive testing, under the supervision of a professional engineer.
- Any lifting device must 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 a lifting device is not commercially manufactured, a plate or weatherproof label must be permanently secured to it that legibly shows the rated load capacity according to the professional engineer's certification.
- Complete the daily operating checklist prior to commencing any lift.
- Check the appearance of the winch and wire rope for lubrication, kinks, breaks, corrosion, or other signs of wear and damage.
- If a defect affects the safe operation of the crane or hoist, the equipment must not be used until the defect has been remedied. Any repair or adjustment necessary for the safe operation of a lift truck must be made before the equipment is used.
- Never lift the boom out of the carrier until the outriggers are out and stabilized.
- Never move the truck while the boom is out of the carrier.
- Check load hooks for cracks, twisting, stretch or other signs of wear or damage. Also check that the safety latches are in place.
- Inspect all rigging before use.

Cont.....



## Part 3 (22)

- Discard all damaged slings immediately.
- The most important job of any crane operation is rigging of the load. Poor rigging may result in personnel injury, property damage, or other serious hazards. Caution must be taken to ensure that nylon slings are not damaged by sharp corners or excessive loading. If in doubt about the security of your rigging, ask for help.
- Always check the area around the crane – look for overhead wires and check that the ground is level and solid. If overhead wires are present, always follow regulations for minimum limits of approach.
- Always ensure that outriggers are extended all the way out and that the legs are resting on the provided pads.
- Once the crane has been established to be working properly, rig the load properly, attaching tag lines for loads which might be susceptible to swing.
- Always use a spotter. Signals should be accepted from only one person at a time. (designated spotter) Spotter must be familiar with standard hand signals. Do not move unless directions are clear.
- Before beginning a lift, inspect the entire proposed path of the crane, paying particular attention to overhead obstacles (especially overhead electrical hazards which could be fatal). Ensure only authorized people are present in the work area. Keep all people away from the crane and ensure that work is arranged, if it is reasonably practicable, so that a load does not pass over workers. A worker must not stand or pass under a suspended load unless the worker has been effectively warned of the danger and the operator of the lifting device knows the worker is under the suspended load.
- Never lift the load over the rated capacity.
- If the load being lifted is greater than 75% of the rated capacity, a “Critical Lift Plan” must be used. Ensure that required permits are obtained based on jurisdictional requirements.
- Eliminate load swing by positioning the boom directly over the center of the load before lifting.
- When lifting a load, keep it as close to the ground as possible.
- Never lift a load you cannot see.
- Designate a signaller where the operator of a hoist or crane does not have a clear, unobstructed view of any of the following throughout the whole range of movement of the load or hook: (a) the pick-up point; (b) the setting point and the load; (c) the hook, if there is no load.
- In the event of an electrical storm, the crane will be lowered and lifts will be suspended until weather conditions have changed enough to allow safe crane operation. The crane operator will assess weather conditions and make this decision.
- Do not commence any lift if the lighting is not sufficient.
- Never approach the crane operator during a lift unless a hazardous situation which requires immediate cessation of the lift is observed.
- People with diminished capacity due to ingestion of pain relievers, decongestant or other medication which may impair their mental acuity should not operate any crane. The use of alcohol or other intoxicants by crane operator is strictly forbidden and will result in loss of crane operator privileges.
- Never leave a suspended load unattended. An operator who leaves a load suspended and unattended is subject to disciplinary action.
- Respond to any “STOP” signal from anyone immediately.





## Milepost Manufacturing Ltd.

#43, 26004 Twp Rd 544 Sturgeon County, AB

T8T 0B6

### Critical Lift Plan

#### General Information

|                         |                      |
|-------------------------|----------------------|
| Scheduled Lift Date:    | Scheduled Lift Time: |
| Jobsite:                |                      |
| Specific Lift Location: |                      |
| Lift Height:            |                      |
| Description of Lift:    |                      |

#### Personnel

|                                    |                 |
|------------------------------------|-----------------|
| Crane Operator:                    | Qualifications: |
| Lift Supervisor:                   | Qualifications: |
| Rigger:                            | Qualifications: |
| Hoisted Personnel (if applicable): |                 |

#### Lift Criteria

- ☐ Lifting greater than 75% of the rated capacity
- ☐ Lift involving more than one crane
- ☐ Lift over occupied structures or in tight quarters
- ☐ Blind lift (out of the view of the operator)
- ☐ Lift near power lines
- ☐ Hoisting personnel
- ☐ Lift involving non-routine rigging techniques
- ☐ Lift where the center of gravity may change
- ☐ Lifting high value, hazardous, or explosive loads
- ☐ Lifting submerged loads
- ☐ Other (describe): \_\_\_\_\_

## Crane

|  |               |                      |            |
|--|---------------|----------------------|------------|
| Manufacturer:  |               | Model:               |            |
| Mobile Crane Capacity (lbs)                                  | Over Rear:    | Over Front:          | Over Side: |
| Route of Crane Travel:                                       |               |                      |            |
| Tower Crane Capacity (lbs):                                  |               | Maximum Radius (ft): |            |
| Boom Length:   |               | Jib Length:          |            |
| Load Block   | # of Sheaves: | Size:                | Weight:    |
| Secondary Block  | # of Sheaves: | Size:                | Weight:    |
| Hoist Rope Diameter:   |               |                      |            |
| Maximum Rated Capacity for Lift Radius and Boom Angle (lbs): |               |                      |            |
| Maximum Crane Load for Lift Radius and Boom Angle (lbs):     |               |                      |            |
| Lift Rated Capacity (%):                                     |               |                      |            |

## Load

|   |                        |
|---|------------------------|
| Load Weight (lbs):  | Source of Load Weight: |
| Load Weight Confirmation:   |                        |
| Total Rigging Weight (blocks, lifting beam, slings, shackles, rope, etc.) in lbs: |                        |
| Total Load Weight (load + rigging) in lbs:  |                        |
|   |                        |
| Note: Attach a diagram of the intended path of the load.                          |                        |

## Rigging

|   |         |                 |
|---|---------|-----------------|
| Sling(s)  | Number: | Diameter:       |
|   | Length: | Capacity (lbs): |
| Shackle(s)  | Number: | Size:           |
|   | Type:   | Capacity (lbs): |
|   |         |                 |
| Note: Attach a rigging plan or diagram that identifies intended lift points, sling angles, and sling connections. |         |                 |

## Site Conditions

|   |                                    |
|---|------------------------------------|
| Ground Conditions:  |                                    |
| Outrigger Position:   | Mat Size (under outrigger floats): |
| Degree of Level (°)   | Level Confirmation:                |
| Maximum Allowable Windspeed in mph (per crane manufacturer):    |                                    |
| Site Windspeed Range (mph):                                     |                                    |
| Method of Windspeed Confirmation:                               |                                    |
| Site Weather Conditions:  |                                    |
| Proximity to Other Workers (not involved in the critical lift): |                                    |
| Proximity to Power Lines:                                       |                                    |
| Obstacles or Obstructions to Lift or Swing:                     |                                    |
| Proximity to Other Hazards (describe):                          |                                    |

## Communication/Signaling (check all that apply)

- ☐ Standard Signaling
- ☐ Voice
- ☐ Radio
- ☐ Telephone
- ☐ Other (describe): \_\_\_\_\_

## Hoisting Personnel

Describe the rational for selecting a personnel platform and explain why conventional methods were not used\*:

\* 1926.550(g)(2): General requirements. The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous or is not possible because of structural design or worksite conditions.

|                    |                        |                          |
|--------------------|------------------------|--------------------------|
| Personnel Platform | Type:                  | Weight:                  |
|                    | Maximum Intended Load: | Workers in Platform (#): |



|   |                   |                            |
|---|-------------------|----------------------------|
|   | Load Weight:      | Lift Rated Capacity (%)**: |
| Confirmation of Platform Design:  |                   |                            |
| ** 1926.550(g)(3)(i)(E): The total weight of the loaded personnel platform and related rigging shall not exceed 50% of the rated capacity for the radius and configuration of the crane or derrick. |                   |                            |
| Proof Testing to 125% of the Platform's Rated Capacity  | Date:             | Time:                      |
|   | Competent Person: |                            |
| Trial Lift  | Date:             | Time:                      |
|   | Competent Person: |                            |
| Fall Protection   | PFAS Type:        | Anchorage:                 |
| Primary Method of Communication Used:   |                   |                            |
| Pre-Lift Meeting  | Date:             | Time:                      |
|   | Personnel:        |                            |

### Inspections

|                     |                         |                   |
|---------------------|-------------------------|-------------------|
| Crane               | Daily Inspection Date:  | Competent Person: |
|                     | Annual Inspection Date: | Competent Person: |
| Rigging             | Date:                   | Competent Person: |
| Personnel Platforms | Date:                   | Competent Person: |

### Approvals

|                           |       |
|---------------------------|-------|
| Project Manager/Engineer: | Date: |
| Supervisor:               | Date: |
| Crane Operator:           | Date: |

### Completion/Cancellation

|                          |       |       |
|--------------------------|-------|-------|
| Completion               | Date: | Time: |
| Comments:                |       |       |
| Cancellation             | Date: | Time: |
| Reason for Cancellation: |       |       |
| Comments:                |       |       |



## CONFINED SPACE ENTRY



### Safe Work Practices Part 3 (23)

#### DEFINITION:

“Confined space” is defined as a restricted space which “may become hazardous to a worker entering it”. Thus, confined spaces are a specific type of restricted space, one in which the potential hazards within the space pose dangers above and beyond the mere difficulty of entering or leaving the space. These hazards can emerge from atmosphere, circumstance or activity. Also, the definition includes that a “confined space” is an enclosed or partially enclosed space that is not designed or intended for continuous human occupancy with a restricted means of entry or exit and may become hazardous to a worker entering it because

- (a) of its design, construction, location or atmosphere
- (b) of the work activities, materials or substances in it,
- (c) the provision of first aid, evacuation, rescue or other emergency response service is compromised, or
- (d) of other hazards relating to it.

(E.g. dike systems with limited egress, excavations, or low lying areas under tanks, on live plant sites.)

Confined Spaces are addressed in length in “Part 5 of the OH&S Code.

A restricted space should not be confused with a “restricted area”, an area of a worksite where the airborne concentration of a dangerous dust such as coal dust or silica exceeds or may exceed the occupational exposure limit. Restricted Areas are dealt with in Section 29 of the Alberta OH&S Act, under Part 4: Chemical Hazards, Biological Hazards, and Harmful Substances.

#### GENERAL

Secure the site by erecting signs, barricades and any other traffic control device required to protect the workers from traffic.

- Hazard Assessment of area of confined space to identify all existing or potential hazards to be done by competent worker.
  - If Hazard Assessment identifies potential atmospheric hazard a pre-entry atmospheric test is to be performed by competent worker which identifies and records any additional hazards.
  - If internal combustion engines are required on a site with a potential hazardous atmosphere, they will be equipped with a flame arresting device or positive air shut off. Any internal combustion engine exposed to the atmosphere in a hazardous location shall operate at a temperature lower than what would ignite a flammable substance or shielded to prevent any flammable substance from contacting the surface.
  - If there is a potential for the atmosphere to change unpredictably after a worker enters the confined space, the atmosphere shall be continuously monitored.
  - Results and tests required must be recorded and retained for 2 years.
  - Ensure that there is a safe entry and exit to all workers.
  - Ensure ventilation and purging is established that allows acceptable air levels to be maintained.
  - Establish method of communication in event of rescue or assistance is required, confirm an alarm system.
- Cont.....



## CONFINED SPACE ENTRY

### Safe Work Practices

#### Part 3 (23)

- Workers entering confined space must be competently trained in confined space entry and H<sub>2</sub>S Alive or equivalent.
- All PPE and emergency equipment required is to be inspected by a competent person and is in good working order. Inspection results are to be recorded and retained for a period of 2 years.
- A competent worker trained in evacuation and rescue procedures is present outside a confined space, at or near the entrance.
  - 1- If the oxygen content inside the confined space is less than 19.5 %
  - 2- If the oxygen content inside is greater than 23%
  - 3- If a concentration of a substance listed in the OH&S regulations inside the confined space is greater than 50% of its occupational exposure limit.
  - 4- Or some other hazard that cannot be eliminated or effectively controlled.
- Tending worker must keep track at all times of the number of workers inside confined space.
- Is in constant communication with the workers.
- And has a suitable system for summoning assistance.
- Must not leave the area until all workers have left confined space, or another tending worker is in place.
- All records of entry and work in a confined space are to be retained for a period of 2 years.
- When Milepost Employees are on job sites, employees abide by our clients instruction and are covered under their entry permit system.

When an emergency happens, it is not the time to plan your rescue. Each job site that confined space is part of the job, a plan should be written for that specific job.

In the Event of an H<sub>2</sub>S Release follow these seven steps:

- Avoid exposure – leave the immediate area of contamination. Many potential rescuers become victims themselves.
- Sound the alarm – signal others to let them know of the emergency situation. Call for help using whatever signalling method is appropriate. In addition to site rescue personnel, other workers may need to become involved to take care of emergency response or shut down.
- Assess the situation, do a head count, consider other hazards.
- Put on personal protective equipment – if you are going to stay in the area of the emergency, or are going to affect a rescue, take the appropriate precautions to protect yourself.
- Proceed to rescue – do so only when you are sure someone is available as a safety watch for the rescuer. In some cases, this may mean only a confirmation of the emergency by two-way radio. If this is the case, make doubly sure the help that is coming knows exactly where you are.
- Revive the victim – use first aid and CPR techniques immediately. Time is a major factor when a victim is unconscious and not breathing.
- Transport to medical aid – All H<sub>2</sub>S victims require medical attention regardless of the extent of injury, get the victim to a medical professional. Some injuries (shock, internal bleeding) are not obvious or visible. Even if they revive quickly, there is a possibility that the lungs may collect fluid some hours after exposure. Arrange transport to medical aid.

Cont.....



## **CONFINED SPACE ENTRY**

Safe Work Practices

Part 3 (24)

### **SOME COMMON OILFIELD HAZARDS**

#### **HYDROGEN SULPHIDE (H<sub>2</sub>S)**

This gas is commonly found within containment systems, excavations, or low-lying areas at gas plants and oilfield batteries. It can be released by tanks venting or accidental releases (e.g. valves, piping etc). The rotten egg smell is associated with concentrations as low as 1 PPM. At higher concentrations the odour may not be detected since the gas affects the sense of smell. Unconsciousness will result in a few seconds if the concentration level exceeds 700 PPM. If the victim is not immediately removed to fresh air, death will follow quickly. If H<sub>2</sub>S is identified during hazard assessment, atmospheric testing should be assessed prior to entry.

- The worker must be informed of all health hazards.
- The worker shall be informed of measurements of harmful substances.
- The worker must be trained in H<sub>2</sub>S procedures to minimize exposure.
- When employees must be exposed to airborne concentrations of H<sub>2</sub>S, atmospheric testing shall be assessed before worker is exposed
- The employer must ensure that no worker is exposed to a concentration of H<sub>2</sub>S exceeding 10 ppm over an 8 hr. time period.
- Workers must not be exposed to a concentration of H<sub>2</sub>S exceeding 15 ppm at any time.
- When working in BC no worker shall be exposed to H<sub>2</sub>S that exceeds the ceiling limit of 10 ppm.
- Milepost Manufacturing Ltd. shall, to the extent that is reasonably practicable, reduce any contamination of the place of employment by H<sub>2</sub>S.

Milepost does not store, handle, use or dispose of H<sub>2</sub>S and would abide by clients code of practice.

#### **CARBON MONOXIDE**

This gas is colourless, odourless, and deadly. Overexposure may result in a worker experiencing ringing in the ears, nausea, headaches, and sleepiness.

#### **ENTERING TANKS AND MANHOLES/SUMPS**

Entering a confined space can be extremely hazardous. The following hazards are commonly encountered and must be considered for confined space entry:

- Toxic vapours
- Fumes
- Flammable liquids and gases.
- Explosion
- Lack of or excess of oxygen
- Electricity including static corrosive or hazardous chemicals.
- Physical hazards 1.
- Noise dust excessive heat.

Cont.....





## **CONFINED SPACE ENTRY**

### **Safe Work Practices Part 3 (25)**

#### **PERSONAL PROTECTIVE EQUIPMENT**

If a worker is or might be exposed to a concentration of H<sub>2</sub>S that exceeds its ceiling limit, the employee will be provided an appropriate respirator and must wear the respirator. The use of personal protective equipment as the primary means to control exposure is permitted only when (a) substitution, or engineering or administrative controls are not practicable, or (b) additional protection is required because engineering or administrative controls are insufficient to reduce exposure below the applicable exposure limits, or (c) the exposure results from temporary or emergency conditions only.

Before workers use the equipment it must be inspected by a competent worker and the records are to be kept on file for not less than 2 years. Written records of inspections of equipment and PPE used must also be kept on file. Where the atmosphere in a confined space cannot be guaranteed to be suitable for workers, breathing apparatus must be used as directed. Workers must also wear standard work wear and personal protective equipment. It must not however be a substitute for proper cleaning and job preparation. Safety belts and lifelines must be of the type approved by the O.H. & S Regulations.

### **Part 3 (26)**

#### **TRAINING**

A supervisor who is thoroughly familiar with the hazards that may be encountered, accident prevention requirements, must direct the work and must be trained in the 1st aid and rescue measures to be implemented. Before entry the supervisor must inform all workers connected with or working in the confined space of the hazards they may encounter, precautionary measures, required rescue methods needed in an emergency. All workers involved with confined space work must be thoroughly trained in the use of respiratory equipment and other safety equipment pertaining to the job. All workers that could potentially come into contact with H<sub>2</sub>S and workers performing work within confined space will receive "Confined Space Entry" and "H<sub>2</sub>S Alive" training through a 3<sup>rd</sup> party.

All workers must be informed of the health hazards associated with exposure.

### **Part 3 (27)**

#### **SAFE PROCEDURE FOR ENTERING CONFINED SPACE**

- Supervisors' approval and presence is to be obtained prior to entry.
- Equipment to be assembled and checked by supervisor and individual operator.
- Supervisor to brief personnel on the operation procedure and each person's responsibility.
- Safety line to be tended by experienced and trained person.
- Training to include emergency procedure.
- Put on harness, check buckles lanyards and safety lines. Tether safety line by making two wraps around fixed object outside space.
- Safety line to be tended and kept snug at all times while person is in the confined space.
- All tools will be lowered and removed using a basket and hand line.
- Personal Protective Equipment will be worn at all times and clothing should fit snugly.



## **AIR BRAKE ADJUSTMENT**

Safe Work Practices  
Part 3 (28)

7-7/32" pots

Maximum stroke brakes should be adjusted at is 1 1/2" (Figure 33, Page 50).

There should not be more than 1/2" variance from one side to the other on drive axles and not more than 1/4" on steering axles. (Page 51, Step #8).

Pressure drop on cab gauges while holding brakes on at 100 psi. and truck shut off should not be more than 4 psi. for truck only and not more than 6 psi. for truck and trailer in 2 minutes (Page 55, Step #5).

Documented from Air Brake Manual, Alberta Transportation and Utilities, Copyright 1995.



## BANDSAW OPERATION

### Safe Work Practice Part 3 (29)

1. Only qualified personnel are to operate the bandsaw. This machine is constructed for metal sawing only – **do not saw other material.**
2. Always use safety guards, enclosures, devices or tooling provided for safe operation of this machine – **do not remove the safety mechanism from this machine.**
3. Always use the personal protective safety equipment supplied by your employer.
4. **Never** wear gloves or loose clothing when operating a saw – wear gloves only when handling the saw blade during set up or repair.
5. Always remove jewellery such as rings, watches and bracelets before operating a saw.
6. Always position the saw guide and / or point operating guard as close to work piece as possible.
7. Always clamp work piece securely.
8. Always **stop** the machine before reaching into point of operation or vise area.
9. Always refer to the data charts or operator's manual to choose the appropriate blade, speed, feed and coolant for size and material type of the work piece.
10. Report any unsafe conditions to your employer.



**DO NOT REMOVE SAFETY GUARDS**



Safe Work Practices  
Part 3 (30)

## **OXY-ACETYLENE TORCH OPERATION**

DO NOT operate this equipment unless you are trained in its operation and authorized to do so.

PPE required: coveralls with full length sleeves, shaded safety glasses, welding gloves, steel toed work boots, hard hat.

- Ensure the area is well ventilated
  - Do not use the torch in explosive atmospheres or around combustible materials  
(See OH&S Code, Part 10, Fire and Explosion Hazards)
  - Do not cut into an empty drum that had previously contained flammable gases or liquid unless it has been cleaned
1. Before starting a torch project, the employee shall inspect the equipment. The hoses, valves, couplings and tip connections shall be checked for damage and leaks
  2. During transportation, storage or when in use, a compressed gas cylinder must always be secured in an upright position. This is especially important for acetylene bottles, because the acetone in them can corrode the valve assembly if laid on its side.
  3. Full or empty gas cylinders not in use shall have their valves shut and the valve protection cap screwed on.
  4. Never use high pressure compressed oxygen in a cylinder for ventilation, comfort cooling, blowing dust from clothing, or cleaning your work area. Pure oxygen greatly enhances the combustibility of any fuel and accelerates the burning process. Also, take extra caution with oxygen bottles to see that the valve assembly on top is not damaged by equipment or a fall. The very high pressure of the escaping oxygen in the cylinder will propel it like a torpedo and destroy most anything in its path.
  5. When lifting cylinders with a rig, never wrap a choker or sling directly to the cylinder. Always secure them in a cart, cradle, sling board, etc. for hoisting. Also do not use the valve protection cap for hoisting.
  6. Oxygen cylinders must have their valve opened all the way for use. Acetylene valves, however must be opened not more than 1 ½ turns so they can be quickly turned off in an emergency. Valves that utilize a T wrench must have the T wrench in place when in use.
  7. Torches will be lit by strikers or friction lighters, not matches, or lighters. (do not carry lighters in your pocket-they can explode)

### **10 Basic Rules for OXY-ACETYLENE WELDING**

1. Blow out cylinder valve before you connect the regulator.
2. Release the adjusting screw on the regulator before opening the cylinder valve.
3. Stand to one side of the regulator before you open the cylinder valve.
4. Open cylinder valve slowly.
5. Do not use or compress acetylene in a free state at pressures more than 15 psig.
6. Purge your acetylene and oxygen passages individually before lighting the torch.
7. Light the acetylene before opening the oxygen on the torch.
8. Never use oil or grease on regulators, tips, etc. in contact with oxygen.
9. Do not use oxygen as a substitute for air.
10. Keep your work area clear of anything that will burn.



Safe Work Practice  
Part 3 (31)

## WELDING MACHINE OPERATION

To be operated by qualified personnel only.

**PPE** – coveralls with full length sleeves, if possible keep coveralls clean of grease and oil, as these substances may ignite and burn uncontrollably in the presence of oxygen. Welding gloves, CSA approved steel toed work boots, welding helmet with proper shade lens, ear plugs or ear muffs (to keep flying sparks or metal slag out of your ears and prevent hearing loss), ½ mask respirator w filters when required, see Milepost Manufacturing Ltd. Safety Manual, Part 5 (2) “Code of Practice for the Use of Respiratory Protective Equipment” and Part 5 (3) “Respiratory Protective Equipment”. Also OH&S Code, Part 18- 244-255.

Potential Hazards: electric shock, over exposure to fumes and gases, arc radiation, fire and explosion, burns, welding flash, eye injuries, hot slag, sparks, noise.

- Welding operator must follow the Safe Work Practice and Safe Job Procedures for the operation of the welding machine.
- Every welder should be familiar with OH&S Act, Regulation and Code. Part 10, “Fire and Explosion Hazards” & ANSI Z49.1 “Safety in Welding and Cutting”.
- Inspect machine prior to use. Check all connections, hoses, cable, ground connection, are the settings correct.
- Always inspect the electrode holder before turning the welder on.
- Check gas cylinders. Ensure that regulators, hoses, and fittings are the right ones for that gas and pressure, and are in good condition.
- Ensure that cylinders are secured in an upright position, with the valve caps in place
- Notify your supervisor if equipment is in need of repair or is not working properly or any unsafe condition. If the hazard cannot be corrected readily, the machine should be removed from service until the needed repairs are made.
- Flashback arresters are to be used where applicable.
- Ensure that there is adequate ventilation and good lighting.
- Ensure that the area is clean and free of clutter. Ensure that burnt rods are disposed of in appropriate place.
- Welding rods are to be kept in “ROD OVEN” set at the correct temperature. Temperature will be recorded.
- Work in a dry area, wetness increases your chances of electrical shock. When working in wet conditions, or when perspiring heavily, you must be even more careful to insulate your body from electrically “live” parts and work on grounded metal.
- Remove all flammable materials away from the work area.
- Keep equipment, cables, hoses, etc. away from major traffic routes such as doors, hallways, and ladders.
- If required, ensure that you obtain a permit prior to starting welding operation.
- Ensure that protective screens are in place to protect co-workers
- Attach ground cable prior to turning on welder.

See also Safe Work Practice “Welding, Cutting and Burning” Part 3 (5)



## Safe Work Practice Part 3 (32)

### MATERIAL HANDLING / STORAGE

Chemical substances shall be stored in proper containers to minimize the potential for a spill. Whenever possible, chemicals should be kept in closed containers and stored so they are not exposed to storm water.

A proper spill kit will be available and contain the appropriate supplies for materials that may be spilled. Supplies must be easily accessible when required, and considerations must be made for both the type and quantity of materials. To ensure the availability of adequate spill response supplies, periodic inspections will be performed to assess their availability and adjust inventory as necessary.

Employees shall be instructed on the proper response procedures for spilled materials. The training will include materials available for use, proper waste disposal, and communication procedures.

- Keep flammable materials away from any heat source or open flame.
- Affix workplace labels on unidentified containers or tanks containing controlled products.
- When stacking materials use supports or blocking as necessary to ensure they do not roll or topple.
- Store compressed gas cylinders in an upright and secure position.
- Secure cylinders when transporting. Ensure that the valve cap is in place.

**DO NOT STORE GAS CYLINDERS & PROPANE TANKS TOGETHER.**

All spills shall be reported to environmental authorities. Reporting procedures will be based on type and quantity of materials spilled.



## Safe Work Practice Part 3 (33)

### Use of Knife

- Ensure knife is in proper operating condition.
- Replace dull blades. It is safer to cut with a sharp blade, as it takes less force to cut material.
- Ensure that spare knives and blades are available.
- Hook blades are to be used for trimming and cutting liner.
- Always ensure that direction of cut is away from the body and body parts.
- When it is necessary to hold material close to the cut, use clamps to secure the material.
- Ensure that other workers or equipment are not in the direct path of the direction you are cutting, i.e. move workers or equipment or alter direction of cut.
- When using knife for cutting, use Kevlar gloves or leather gloves with a Kevlar liner. (Note: Kevlar will not necessarily prevent a cut from happening, but should reduce the severity in the event of a mishap.
- If excessive force is required to cut the material, alternate tools could possibly be used to cut the material (i.e. tin snips, circular saw, etc.).
- Knife blade shall be retracted when not in use.
- Collect used blades and dispose of them as soon as possible



## Safe Work Practice Part 3 (34)

# Working Safely with Concrete

All workers will receive training on the safe handling of wet concrete, the hazards associated with wet concrete and the necessary safety precautions to avoid injury.

Workplace inspections will be carried out to insure all employees are following safety precautions.

Creating a safe work environment by minimizing skin contact with wet concrete – both directly and indirectly from contaminated surfaces is essential to preventing cement burns. These burns are caused by the caustic nature of cement once it is mixed with water.

Normal human skin has a pH of 5.5; therefore, wet cement can produce alkaline (caustic) skin burns which progress and get worse without more exposure. A worker may have wet concrete on his or her skin for hours without feeling any discomfort; however, the cement is damaging the skin microscopically. Early identification of changes to the skin is important so steps can be taken to treat the affected area.

Don't assume the burn will not get worse. By the time a worker becomes aware of a burn, much damage has already occurred and further damage is difficult to stop.

Some patients report red inflamed skin near the affected area followed by severe blistering. Cement burns can also lead to allergic dermatitis.

It is important that workers be dressed appropriately in order to avoid contact with the caustic substances. The best way to prevent cement-related skin problems is to minimize skin contact with wet cement.

### **Protective equipment should include:**

- Full-cover goggles or safety glasses with side shields to protect against blowing dust (the moisture in the eyes will mix with the dust, making it caustic), splattering concrete and other foreign objects
  - Gloves
  - Long-sleeve buttoned shirts
  - Coveralls or long pants
  - Water-repellent boots or steel toed boots
- Remove all jewelry, watches, belts, etc., since the wet concrete can become trapped against the skin
- Remove any contaminated clothing, being careful not to touch unexposed areas. Throw out grossly contaminated or worn-out gloves.
- Gently brush any dry chemicals off the skin and flush the affected area with clean running water for at least 20 minutes. To help neutralize the alkalinity, add vinegar to the water.
- If the eyes are involved, rinse eyes with clean water for 20 minutes.
- Seek professional medical attention without delay. Provide the MSDS to the medical practitioner.
- Change protective boots if they become ineffective or contaminated on the inside with wet cement while in use.
- Change out of any work clothes that become contaminated with wet cement and keep contaminated work clothes separate from your street clothes.

Workers need to be especially careful when removing gloves, boots and other work clothes so as not to contaminate themselves or other areas routinely exposed to the caustic product. Each time gloves or boots are removed; workers should wash and thoroughly dry hands with clean towels. It is crucial that gloves and boots are cleaned daily and stored in a dry place away from tools and other work or home items.

Avoid lanolin, petroleum jelly and other skin-softening products since they can seal cement to the skin and increase the skin's ability to absorb contaminants.





## Ground Disturbance

**As Milepost does not perform excavations, this safe work practice is for general knowledge and safety for our crews. When on site, Milepost Manufacturing Ltd. will abide by our clients Ground Disturbance safe work practice and safe job procedures.**

- A pre-job safety meeting is to be conducted prior to any ground disturbance and a safe work permit completed.
- Owners of any buried facility must be notified prior to any ground disturbance activity and approvals received.
- Visit **AlbertaOneCall.com** to request that buried facilities be located and marked at least 2 days prior to starting project.
- The location of all underground pipelines, cables, and conduits in an area where work is to be done shall be established and conspicuously marked: (a) before commencing work using power tools or powered mobile equipment on an excavation, trench, tunnel, excavated shaft or borehole: or (b) before breaking ground surface with any equipment to a depth that may contact underground utilities.
- Where an operation is to be undertaken involving the disturbance of soil within 600 millimeters of an existing pipeline, cable, or conduit, ensure that the pipeline, cable or conduit is exposed by hand or other approved method before mechanical excavating is allowed to begin. Where there is contact with or damage to an underground pipeline, cable, or conduit (a) notify the owner of the pipeline, cable or conduit, that contact or damage has occurred: and (b) take steps to protect the health and safety of any worker who may be at risk until any unsafe condition resulting from the contact or damage is repaired or corrected.
- Only competent workers trained in ground disturbance may conduct ground disturbance activities. Workers operating post pounder will be trained and certified in ground disturbance.
- Ensure that before excavating or trenching begins, where the stability of a structure may be affected by excavation or trench, the structure is supported by a temporary protective structure designed by a professional engineer and constructed, installed used maintained and dismantled in accordance with that design.
- Where a worker is present in an excavation that is more than 1.2 meters deep, ensure that the worker is protected from cave-ins or sliding material by:
  - Cutting back the upper portion of the walls of the excavation
  - Installing a temporary protective structure; or
  - A combination of cutting back the walls and installing a temporary protective structure that extends at least 300 millimetres above the base of the cut-back.
  - A temporary protective structure is : (a) designed and installed using shoring made of number 1 structural grade spruce lumber for the type of soil and the depth of the excavation or made of material of equivalent or greater strength; or (b) designed by a professional engineer and constructed, installed used, maintained and dismantled in accordance with that design.
  - If the excavation is a danger to workers or equipment, the client must ensure workers are made aware of the excavation through flagging or other appropriate safe guards.
  - Where a worker is required to enter a trench, the client must provide a safe means of access and egress, either by installing ladders, stairways, or ramps to provide a safe means to enter and exit the trench and ensure that the ladder, stairway, or ramp is located not more than 8 meters away from a worker working in the trench.

Cont.....



## Ground Disturbance

### Safe Work Practice Part 3 (35)

The Client must follow all requirements for different soil classification s when a wall is cutback.

- (a) Hard and compact
- (b) Likely to crack or crumble
- (c) Soft, sandy or loose

The Client must ensure that spoil pile is piled so that the edge of the pile is at least 1 meter away from the edge of the excavation.

Trees, utility poles, rocks, and similar objects adjacent to an area to be excavated must be removed or secured if they could endanger workers.

Excavated material must be kept back a minimum distance of 60 cm (2 ft.) from the edge of a trench excavation and 1.2 m (4 ft.) from any other excavation.





Safe Work Practice  
Part 3 (36)

## BOMAR BANDSAW

A band saw can be dangerous if not used properly.

- **The operating instructions must be readily available.**
- The operating instructions must be read by the person operating this machine prior to using, servicing, or repairing. The operator must familiarise himself with its operation to ensure proper care of this machine and avoid any risks associated with its care and use.
- Securely anchor the band saw to the floor (or a workbench of appropriate height) to reduce vibration.
- Wear safety glasses or goggles, or a face shield (with safety glasses or goggles).
- Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area.
- Wear protective footwear.
- Make sure all guards are in place and properly adjusted.
- The BOMAR 620.460 DGA is designed for cutting steel, stainless steel, nonferrous metals and plastics. With the cutting angle from -60 degrees to 60 degrees. Combustible materials are exempt from cutting.

**Attention:** DO NOT remove or damage any safety signs on the machine.

Determine that the surrounding area is clean and clear and free of anything that could interfere with your operation of the machine. Make sure that the people working around you are aware of what you are about to do and an appropriate distance away before turning on the horizontal band saw.

Before beginning any work on the band saw be sure of these things:

- That the correct blade is on the saw, that it is tensioned correctly for the cut to be made, and that the blade speed is correct for the material to be cut.
- That the blade guides are set properly to control the blade as it is cutting and locked in place as close to the stock as possible.
- That the stock is locked securely in the vise.
- That the hydraulic down feed is set to the proper speed for the cut to be made.
- That the casters are locked in place so the saw cannot move while cutting.
- That the stock that is being cut off is supported and will not fall to the floor when cut through.
- If you are cutting either heavy or long stock, you must be prepared for the weight distribution change when your stock has been cut through and the offcut falls off of the saw.
- -Set the blade speed correctly for the material you will be cutting and if your cut will require a cutting fluid make sure that you have the correct fluid and a suitable way of applying it to the cut.
- Use caution when removing your stock as the cut may leave sharp burrs on the both the cut piece and the offcut.
- All material should be inspected prior to cutting and be free from any suspect foreign material or strange inclusions.
- Never place any part of your body in the path of the descending arm, even if it is locked in place.

Cont.....



## Bomar Bandsaw

### Safe Work Practice Part 3 (36)

- When performing maintenance or blade changes on the machine it must be rendered inoperable first.
- Do not leave the machine until the blade has come to a complete stop.
- Return the saw to the state in which you found it when your cuts are completed and be sure to thoroughly clean the band saw and surrounding area after use.
- Report any unsafe conditions to your employer.

#### **Safety Hazards:**

- Pinch/Nip points: Pinch points can occur between the blade/arm and stock, blade/arm and vise, blade/arm and table, when moving/locking the vise, when raising/lowering/or adjusting the arm, guards and guides, and when opening and closing the doors to access the blade. Unguarded rotating parts: The blade. Cutting injuries/ eye injuries from flying debris/ sharp metal edges or metal fillings/ crush area as saw rotates/ combustible materials are exempt from cutting / rotating parts/ cooling liquid.

**Enhanced Risk: do not come into or intervene in the cutting area. Otherwise there is a possibility of heavy injury.**

#### **Safety Precautions:**

Operating instructions must be available at the machine/ do not wear loose fitting clothing which could get caught in rotating parts/ wear gloves only when working with material or replacing material, the machine and accessories must be inactive/ if the machines running you must not wear gloves as some parts of the machine can catch the gloves/ wear protective goggles/ CSA approved work boots/ hearing protection/ do not wear jewellery/ tie back long hair/ only operate machine when fit to do so/ check machine at least once a day to ensure that the machine is not damaged/ if the machine is damaged, inform supervisor/ keep area around machine clean/ clean any fluid or oil from around the machine/ do not remove chips from the working area of the machine when the machine is started/ use protective instruments for chip removal/ do not use compressed air to clean chips from machine/ lock out/tag out machine for servicing/ use only a qualified professional to service or repair machine/ ensure that all gates are closed to prevent other workers from entering these areas/ lock the vise when raising or lowering or adjusting the arm, guards and guides and when opening and closing the doors to access the blade.

Refer to the Bomar Bandsaw manual for further details.

**DO NOT REMOVE SAFETY GUARDS**



## Thermal Exposure

### Safe Work Practice

#### Part 3 (37)

When a job requires workers to be exposed to extremely cold or hot temperatures certain precautions will be followed:

#### **In the event of extreme cold temperatures:**

- Re-schedule the work to be done if possible
- Minimize time outdoors
- Take frequent breaks to warm up
- Use controls such as enclosures and heating systems where practicable
- Shield work areas from drafts or winds as much as possible
- Provide workers training on the hazards of working in a cold environment
- Select PPE to suit the cold temperatures, and dress in layers
- Have extra socks and a change of dry clothing
- Heavy snow fall and blizzards can produce very cold conditions and restrict visibility
- Workers in remote areas need to take extra precautions and orient themselves to cold weather operations and emergency survival

**If a worker shows signs or reports symptoms of cold stress the worker must be removed from further exposure and treated by an appropriate first aid attendant.**

#### **Signs of Cold Stress:**

Cold affects dexterity, affecting skill and ease of using the hands, loss of sensitivity in hands and toes

Extremely cold conditions adversely affect mental skills and coordination

Cold exposure reduces muscle power and time to exhaustion

Loss of alertness, slurred speech, fatigue, lethargy or apathy.

Cont.....



## Safe Work Practice

### Part 3 (37)

#### What first aid can I do if someone has frostbite?

- Seek medical attention.
- If possible, move the victim to a warm area.
- Gently loosen or remove constricting clothing or jewellery that may restrict circulation.
- Loosely cover the affected area with a sterile dressing. Place some gauze between fingers and toes to absorb moisture and prevent them from sticking together.
- Quickly transport the victim to an emergency care facility.



#### What first aid can I do for hypothermia?

Hypothermia is a medical emergency. At the first sign, find medical help immediately. The survival of the victim depends on their co-workers ability to recognize the symptoms of hypothermia. The victim is generally not able to notice his or her own condition.

First aid for hypothermia includes the following steps:

- Seek medical help immediately. Hypothermia is a medical emergency.
  - Ensure that wet clothing is removed.
  - Place the victim between blankets (or towels, newspaper, etc.) so the body temperature can rise **gradually**. Body-to-body contact can help warm the victim's temperature slowly. Be sure to cover the person's head.
  - Give warm, sweet (caffeine-free, non-alcoholic) drinks unless the victim is rapidly losing consciousness, unconscious, or convulsing.
  - Quickly transport the victim to an emergency medical facility
- Cont.....



Safe Work Practice

## **In the event of extreme hot temperatures:**

Part 3 (38)

- Use equipment if possible to reduce the level of physical activity
- Increase the number of rest breaks and provide a cool area to cool off
- Ensure that there is plenty of drinking water available for workers
- Schedule physically demanding jobs for cooler periods of the day
- Wear lighter clothing under coveralls or wear lighter weight coveralls
- Use sun screen minimum SPF 30

### **Signs of Heat Stress:**

Headache, dizziness, faintness, fatigue, muscle cramps, confusion, skin from hot and dry to cold and clammy,

**Other factors involved could be the workers level of physical fitness, medical conditions or medications being taken can also have an effect on that person's response to heat exposure.**

If someone shows signs of heat stress, assume that other workers may also be affected. Workers should report to a cool area for assessment before work continues.

Move the person to a cooler area where they can rest

Give the person water to drink

Take off excess clothing (hard hat, boots, coveralls) only after worker has been moved to a safe area



## Journey Management Plan

### Safe Work Practice

#### Part 3 (39)

- The scheduled trip will be reviewed with crew prior to leaving the Milepost yard.
- The crew will be provided with a map of their route and any contact information for the client.
- Weather conditions will be monitored, particularly during winter to ensure that conditions are safe for driving. Driving during adverse weather conditions will be avoided whenever practicable.
- Vehicles will be adequate for the conditions and well maintained.
- Always fill the gas tank before a long trip or even a short distance. Stop to fill up long before the tank begins to run low.
- Ensure the wiper blades are in good condition and washer fluid is full.
- Vehicles will carry a 1<sup>st</sup> aid kit, flashlight, hazard markers, and extra water.
- Drivers will carry a cell phone. Ensure phone is charged or you have your charger with you.
- Drivers will keep office informed of any change in plans.
- Upon completion of a job, check in with Milepost management to advise them on the travel plan, start time, stops, route that will be taken, layovers, and the estimated time of arrival to the Milepost yard.
- When driving long distances, take breaks for fresh air and to stretch, this will help prevent fatigue. If necessary, pull off the road and have a nap.
- If possible avoid night driving, get a hotel room and start fresh the next morning.
- If there are two drivers, take turns driving.
- Before embarking on a journey ensure that you are well rested and fit for duty.
- Road journeys will be taken only when necessary and jobs will be combined whenever possible to reduce the amount of driving.

### WINTER DRIVING

- Ensure that snow and ice are cleared from all windows and lights – even the hood and roof before driving.
- Know the current road conditions. Posted speed limits are for dry pavement, SLOW DOWN.
- Don't use "cruise control" driving in wintry conditions. The slightest touch of your brakes to deactivate the cruise control can cause you to lose control of the vehicle.
- Don't rely on a 4x4's traction, it won't help you to stop any quicker.
- Look further ahead in traffic, actions of other vehicles will alert you and give you a split second extra time to react safely.
- If you feel the weather is too bad to continue driving, notify Milepost management and find a safe spot to pull off the road and wait till the weather calms to the point where you are able to drive again.

Cont.....





## Journey Management Plan

### Safe Work Practice

#### Part 3 (39)

If you are Stranded While Driving in Winter:

- **Call 911**-give your location, condition of your co-workers and the trouble you are experiencing.
- **Stay in your vehicle**-walking in a storm can be very dangerous. Your vehicle itself is a good **shelter**.
- **Stay calm**-the storm will end and you will be found. Wet clothing loses insulation, making you more susceptible to the effects of hypothermia.
- Don't run the engine-unless you are certain the exhaust pipe is free of snow or other objects. Keep the radiator free from snow to prevent the engine from overheating. Run the engine at 10 min. intervals.
- Keep your blood circulating by loosening tight clothing, changing positions frequently, and moving your arms and legs. Huddle close together.
- Make yourself visible to rescuers-tie a bright cloth to your antenna.

If you are Involved in an Accident:

- Check to see if anyone is injured.
- If necessary, call 911 and request an ambulance or emergency services.
- If possible, move vehicle off the road. Notify Milepost Management as soon as possible.
- Exchange name, address, driver license #, vehicle registration and insurance information with all drivers or property owners involved.

Tips to Avoid Animal-Vehicle Collisions:

- Most wildlife – vehicle collisions occur during the fall and winter, and may be preventable. Be aware of increased wildlife movement in some regions during certain times of year, such as hunting or mating season.
- Scan the road and shoulders ahead of you-looking ahead helps provide enough reaction time if an animal is spotted. Also remember, some animals travel in groups, so when there is one, there usually is more in the area.
- Use high-beam headlights if there is no oncoming traffic.
- Slow down and use extra caution when travelling through areas with high and active wildlife population.
- Remain in your lane, swerving to avoid an animal can often cause a more serious crash.



## USE OF PRESSURE WASHER

### Safe Work Practice Part 3 (40)

Worker shall be trained in the use of the pressure washer before use or under direct supervision of a competent worker. Worker must review operator manual to ensure understanding of the manufacturers operating instructions and warnings before using the pressure washer.

Wear all required PPE, steel toed work boots, long sleeved shirt, and pants or coveralls, rain gear to stay dry, gloves and eye protection. Protect skin from solvents or other materials being used to wash vehicles or equipment. Hearing protection is also required as the machine exceeds 85db.

Check hoses, fittings, wand, trigger gun, and fuel connections prior to use for signs of wear, cracks and looseness, and replace as required.

Move vehicle or part to be washed into washing area or outside. Shut vehicle off, set park brake.

Turn on water supply to pressure washer, ensure soap container is full. Use only detergents intended for pressure washers.

Pull out wand and amount of hose needed.

Grip cleaning wand securely with both hands before starting. Failure to do this could result in injury from a whipping wand. Turn on power to pressure washer.

Ensure that exhaust is vented to the outside atmosphere if the pressure washer is to be used in an enclosed area.

Watch out for burns from hot water and back blast from water or dirt particles.

Do not direct high velocity streams of water on yourself or others. .

Point wand at area of vehicle or part to be cleaned.

Never run pump dry or leave spray gun closed longer than 1-2 minutes.

When finished cleaning, shut off power.

Coil up hose and wand and put away.

If using the heater coil, turn off heat 2 minutes prior to finishing washing to allow coil to cool down thoroughly.

Close water line to washer after use.



**Always wear your safety glasses and locate the eye wash station prior to commencing work.**



## USE OF TIGER TORCHES

### Safe Work Practice Part 3 (41)

#### General

Propane torches, also referred to as tiger torches, are commonly used in the pipeline construction sector for the pre and post-heating of pipe before welding. Like any tool, there are hazards associated with the use of propane fired torches; therefore, controls must be in place to ensure that workers can safely use the tool. Aside from the information provided below, the specific torch manufacturer's operation guide or instructions, company safe work policies, procedures and guidelines, job or task hazard assessments, training material and regulations, standards and industry best practices should be reviewed and considered before the operation of a propane fired torch.

- Ensure that workers have received training in pre-use inspection of the equipment, hazards associated with the torch, required PPE, procedures for how to operate, maintain, and store the equipment, and emergency response procedures. Workers are required to have WHIMIS training.
- Refer to Safe Work Practice Part 3 (45) Use, Handling and Storage of Compressed Gas Cylinders
- All tools should be given a pre-use inspection before each use. Check to ensure that the torch components are in good condition, free of and damage or defects, and that all fittings and control valves are functional and secured tightly. Check the propane line to ensure that there are no cracks, abrasions, kinks, or other defects which could compromise the hose integrity. Check the tank to ensure that it is in good condition and stored correctly. Defective equipment must never be used, it should be tagged and removed from service and taken for repair or replacement.

- **Personal Protective Equipment:**  
Aside from the normal protective equipment, safety boots and hard hats, gloves which provide flame resistance must be considered. Eye protection which helps reduce exposure to bright light may also be required, FR clothing and gas detection monitors may be required, depending on the work area.

- **Torch Hazards:**

High temperatures, combustion and the presence of propane are all hazards which need to be considered by workers when introducing a torch into a work area as each of these hazards, in combination with conditions at a worksite, may have catastrophic effects. As we all know, high temperatures can result in uncontrolled fires; Therefore, flammables/combustibles must be removed from the work area and/or isolated from the source of heat. Other workers must also be considered, as inadvertent contact with torches or hot material can also result in burns. Remember that the temperature of the equipment and the material which has been heated can remain high even after the flame has been extinguished or removed. The use of propane introduces many hazards to the work environment as it is highly flammable, heavier than air, expands 270 times when going from liquid to gas form and has a relatively low explosive limit (2.1%). Propane can also displace oxygen in confined spaces, cause frostbite if exposed to skin and release carbon monoxide and carbon dioxide when burned. Working with propane in confined spaces and near or in trenches is especially hazardous due to its properties, and requires special attention given to the hazard assessment process and the controls used to eliminate or reduce exposure.

Cont....



## USE OF TIGER TORCHES

### Safe Work Practice Part 3 (41)

- **Emergency Response:**

Because of the hazards associated with torches appropriate emergency response plans, as well as safety equipment to support emergency response efforts, must be available. Through diligent planning, most incidents can be avoided; however, there is still a chance of something going wrong.

All crew trucks are equipped with 20 lb. fire extinguishers, and #2 First Aid Kits.

It is vital that crew members know where the site muster point, and this should be communicated to crew members during site orientation along with the emergency response plan determined by client.

Emergency contacts for client and EMR contacts as per client's direction.

- **General Safety Precautions:**

Never smoke when working with, or around, propane torches.

Always use propane torches in well-ventilated areas.

Never leave a propane torch unattended while it is lit.

Always turn off the gas supply when leaving the torch unattended for extended periods of time.

Never light a propane torch with a match or cigarette lighter; always use a striker.

Stop work immediately if you smell "rotten eggs" and inspect the equipment for leaks.

Propane torches introduce unique hazards to the workplace. However, by having an understanding of the hazards associated with the equipment, the controls used to protect workers and how to respond if an incident occurs, these tools can be used safely.



## USE OF CHAIN SAWS

### Safe Work Practice Part 3 (42)

#### GENERAL

This tool can be unfamiliar to some workers. Know your equipment. Workers must be trained in the safe operation, application and limitations as well as the specific and potential hazards of the equipment before operating it. Refer to the operating manual if necessary.

1. Wear adequate PPE and keep observers at a safe distance from the work area. Minimum PPE for this equipment is eye, hearing and foot protection, refer to the manufacturer's directions and OH&S legislation. Check the MSDS before starting work for material-specific hazards that could require other PPE.
2. Fueling of the saw must be done in a well ventilated area and not while the saw is running or hot.
3. An approved safety container must be used to contain the fuel used along with a proper spout or funnel for pouring.
4. The correct methods of starting, holding, carrying or storing and use of the saw (as directed by the manufacturer) must be used.
5. Before the saw is used to make any cuts, you must make sure that the chain brake is functioning properly and adequately stops the chain.
6. The chain must be sharp, have correct tension and be adequately lubricated.
7. Maintenance must be done according to the manufacturer's specifications.
8. If you are using an electric chain saw, ensure all cords are clear of the cutting area before starting a cut.
9. Before cutting, check the stock for foreign objects or any other obstructions which could cause the saw to "kick back". Do not use the saw to cut above shoulder height.
10. When carrying/transporting a chain saw, the chain bar must be toward the back and the motor shut off.
11. When you are finished with the saw, make sure that it is stored in a safe and secure location.
12. Chain saws must comply with CSA Standards Z62.1-M-77
13. Most chain saws are 2 cycle engines, so properly mixed proportions of fuel and oil is used in chain saws (1:40 or as specified in operators manual).
14. OH&S Code Part 25 Tools, Equipment and Machinery , 376 (1) 376 (2)



## INSTALLATION OF STEEL DIKES

### Safe Work Practice Part 3 (43)

- Low trailer or tilt deck
- 3 or more people
- Small picker truck
- Make handles to help carry dike
- Setting steel dike systems a minimum of 3 people must be used, one person on each site and one at the end.
- Set the first dike into position as indicated by the corner markers and install “deadman” at the opposite end from corner to keep section upright.
- Install the next section at 90° to the first section, again aligning with corner markers.
- Caulk inside of joint and securely bolt the 2 sections together.
- Remove “dead man” support
- Install the remaining sections as per corner markers or supplied drawings.
- Be sure all joints are caulked prior to bolting.



## USE OF PORTABLE ARC WELDERS

Safe Work Practice  
Part 3 (44)

### GENERAL

Portable arc welders are a piece of equipment that has to be treated like a vehicle. Do not operate them indoors.

- Be sure the machine is firmly attached to the transporting unit.
- Check all fluid levels, water, oil and gas to be sure they are at acceptable levels for operation.
- When fuelling, **DO NOT** “top off” the gas tank. Gasoline expands as the outside temperature rises, this may result in seepage and an ensuing fire.
- Do not fuel the machine while it is running.
- Be sure the radiator and gas caps are in proper working order and securely attached.
- Do a “walk around” to check for damage and obvious leaks.
- Qualified mechanics or technicians should do any repairs.
- Make sure all cables are wound securely when transporting.
- Ensure the side covers are kept closed to protect the machine from any damage from external objects and outside weather, as well as to protect the operator and others from the moving parts of the machine.

### Reference to Safety Regulations

Maintenance of Equipment  
Maintenance and Repairs  
Refuelling of Vehicles

Starting of Machinery  
Part 18-1 Eye Protection  
Hot Work



## Use, Handling and Storage of Compressed Gas Cylinders

Safe Work Practice  
Part 3 (45)

### GENERAL

The current Alberta Occupational Health and Safety Code, Part 10 Sections 171-174 for Compressed & Liquefied Gas shall form the basis for this Safe Work Practice. The following guidelines will apply to all types of compressed gases.

Since propane is heavier than air and invisible, it is a special concern when it is used on the job-site.

- WHIMIS labelling is visible on all Compressed Gas Cylinders (CGC) for clear identification of their content.
- Mislabelled, illegibly labelled or out of date cylinders must be returned immediately to the supplier.
- Cylinders in use must have valid hydrostatic test stamps (within the last 5 yrs. or as noted by H, 10 yrs.) as per the Alberta Fire Code Part 5-Hot Works (reference CSA W117.2-94)
- Containers of compressed gases being transported shall be kept in an **upright position**, be protected against mechanical damage and be held securely in place. Ensure CGC are always handled in a controlled manner and only approved devices are used when transporting cylinders. Acetylene cylinders shall **not** be placed on their side at any time.
- Cylinders shall be equipped with valve caps to protect against valve damage.
- All compressed gas piping systems shall be provided with a manual shut-off valves at point of supply.
- A compressed or liquefied gas system must be kept clean and free from oil, grease and other contaminants that may cause the system to fail, burn or explode if they come into contact with the contents of the system. Ensure oxygen cylinders, valves, regulators, hoses and fittings or oxygen apparatus are **NOT** handled with hands or gloves contaminated by oil and/or grease.
- All installations and use of this product on the job-site must comply with Government Legislation set out for its safe use.
- Suppliers delivering the product or setting up the equipment at the site must be part of the safe work practice.
- Nylon slings must be used in a “chocker” fashion when loading, off-loading or lifting propane tanks.
- “Lifting lugs” provided on tanks are not to be used. Slings are to be wrapped around the shell of the tank.
- All trucks, cranes, or equipment used to handle propane tanks must be equipped with a fire extinguisher appropriate for the size and type of tank being handled.
- Except in an emergency, a competent worker shall perform any movement or repositioning of tanks.
- When in use, propane bottles are to be securely held in an upright position.
- Tanks are not to be hooked up and used without proper regulators.
- **Ensure that a flashback device is installed at either the torch end or the regulator end and a back flow prevention device is installed at the torch end.**
- Tanks are to be certified and compliant before use.
- Compressed gas cylinders must not be stored near ignition sources or in high temperatures. The cylinders must be stored in a well-ventilated area, protected from excessive heat or cold, secured in an upright position, protected from falling, and must have the protective cap in place when not in use. Full and empty containers must be kept in separate areas.
- A cylinder of compressed flammable gas shall not be 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)

Cont.....





## **Use, Handling and Storage of Compressed Gas Cylinders**

Safe Work Practice

Part 3 (45)

- Compressed gas cylinders, piping, and fittings must be protected from damage during handling, filling, transportation, and storage.
- Ensure that if a pressurized cylinder is dropped or damaged:
  - The cylinder is left in place.
  - Potential sources of ignition are eliminated.
  - The immediate area is evacuated.
  - Emergency Services are contacted.
  - Supervision is informed of the mishap.
  - All information regarding the cylinder being dropped or damaged is attached to the cylinder to aid the manufacturer's representative in the assessment of the integrity of the cylinder.

**TANKS ARE NOT TO BE HEATED TO INCREASE FLOW**

### Reference to Safety Regulation

Albert Fire Code, Part 3 (Compressed Gases), (Indoor Storage of CGC) and (Outdoor Storage CGC)

Alberta Fire Code, Part 5.2-Hot Works

Alberta Occupational Health and Safety Act

Alberta Occupational Health and Safety Code- Part 10, Section 171-174

Part 10-1

Fire and Explosion Hazards

Part 10 – Section 163

Classification of Work Site

Part 10 – Section 171







Compressed and Liquefied Gas Systems



## Use of Vehicle Hoist

### Safe Work Practice Part 3 (46)

#### PERSONAL PROTECTIVE EQUIPMENT

- |  |  |   |   |   |   |
|--|--|---|---|---|---|
|  | Safety glasses must be worn at all times in work areas.          |  | Long and loose hair must be contained.          |  | Do not stand on hoist whilst hoist is in operation. |
|  | CSA steel toed footwear must be worn at all times in work areas. |  | Close fitting/protective clothing must be worn. |  | Rings and jewellery must not be worn.               |

#### PRE-OPERATIONAL SAFETY CHECKS

Read and understand all safety warnings before operating lift. Do not use this machine unless you have been instructed in its safe operation and use.

- Keep hands and feet clear. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- Ensure the vehicle hoist has operating and maintenance instructions permanently located and clearly visible.
- Check the capacity of the hoist compared to the weight of the vehicle. If vehicle is too heavy, do not proceed.
- Consider work environment. Do not expose equipment to rain, wet or damp conditions.
- This lift must be grounded to protect operator from electric shock. Never connect the green power cord wire to a live terminal, this is for ground only.
- Always ensure that the safeties are engaged before any attempt is made to work on or near vehicle.
- Ensure support arms are capable of being locked in position.
- Use the lift correctly. Use the lift in the proper manner. Never use lifting adapters other than what is provided by the manufacturer.
- All non-trained personnel should be kept away from the work area. Never let non-trained personnel come into contact with or operate lift.

#### OPERATIONAL SAFETY CHECKS

- Centre the vehicle on the hoist, ensuring the weight is evenly distributed to the front and rear.
- Identify the correct jacking points and place the lifting pads under the vehicle at the front and rear on the jacking points, ensuring contact.
- Only one person shall operate the hoist at a time.
- The hoist must not be operated unless it has a current certificate of inspection.
- Ensure the area is clear of people and equipment before operating.
- Check vehicle stability by looking at the jacking points.
- Do not override self-closing lift controls. Remain clear of lift when raising or lowering vehicle.

#### ENDING OPERATIONS AND CLEANING UP

- Lower the vehicle hoist and switch off machine when work completed.
- Danger! This power unit used of this lift contains high voltage. Disconnect power before performing any electrical repairs. Lock out plug so that it cannot be accidentally plugged in during service.
- Warning: Risk of explosion! This equipment has internal arcing or sparking parts which should not be exposed to flammable vapours. This machine should not be located in a recessed area or below floor level.
- Maintain with care. Keep lift clean and follow manual for proper lubrication and maintenance.
- Keep control handles and/or buttons clean and free from grease and oil.
- Leave the equipment and work area in a safe, clean and tidy state.

#### POTENTIAL HAZARDS AND INJURIES

- ! Falling objects.
- ! Trapping hazards.
- ! Crushing hazards.
- ! Hair/clothing getting caught in moving machine parts.

#### DON'T

- ✗ Do not use faulty equipment. Check for damaged parts or any condition that may affect its operation. Immediately report suspect equipment.
- ✗ Never remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ✗ Never leave the machine running unattended.



## Straightening and Cutting Machine

Safe Work Practice

Part 3 (47)

**This machine will seriously injure or kill you, ensure that you are trained and competent to operate this machine prior to operating it.**

- **Do not use machine unless authorized to do so.**
- Wire spools are under extreme pressure, use caution cutting bands, wire may uncoil and whip, causing injury.
- Bands may whip when cut, keep clear of bands when cutting.
- Hang on to loose end of wire when cutting bands to prevent flailing of wire.
- Do not have loose clothing, hair, laces or jewelry.
- Wear safety glasses, hard hat, steel toe boots, coveralls, ear plugs and gloves.
- Ensure all guards are in place and functioning
- Never leave machine unattended while being operated.
- Keep away from all moving parts at all times while machine is being operated.
- Keep clear of rotating wire spool during operation.
- Do not let wire come off spool at the end of the roll, wire will flail and whip causing serious injury.
- Stop machine before spool is empty and manually remove last wrap of wire. Bend wire towards machine for leverage and use "JOG" switch to feed wire into machine.
- When wire will no longer feed into machine, put machine in reverse using "JOG" switch to back out last piece that is unusable, hang on to wire while doing so, slowly.
- Use emergency stop button only for emergency, otherwise use stop button.
- Do not place items on top of main power box, it is a hot surface and cannot be obstructed.
- Do not operate machine with electrical panels open.
- Keep away from all pinch points areas.
- Machine will not stop automatically at end of wire spool, only when counter reaches amount programmed.
- Use manual shear to cut wire if necessary.
- Wire rolls weigh in excess of 3000lbs., use caution when handling and moving.
- Do not operate with spin table door open.
- Use extreme caution when manually operating machine, when loading (feeding) wire. The arbour will rotate with safety guard open at this stage, and can cause serious injury.
- Always close arbour guard before operating machine manually or automatically.
- Use brake to stop spin table from "freewheeling".
- Do not use hands to try and slow momentum of wire roll, extreme weight may cause injury.
- Stay clear of trigger mechanism at far exit end of machine, length setting rods may exit the machine as the trigger mechanism is engaged.



## Conveyor Belts

### Safe Work Practice Part 3 (48)

Injuries related to conveyors are common, costly and often severe. Approximately one in four injuries that were directly associated with conveyors resulted in amputation or fracture. While conveyors are convenient and beneficial for quickly moving materials, operating an unguarded conveyor can lead to traumatic injuries. The main hazards of a conveyor are the numerous in-running pinch points, which present a risk of entanglement, crushing, and abrasion. The drive system itself may also post risks of entanglement or abrasion. Safe work practices must be followed to ensure the safety of all personnel.

- All exposed moving machinery parts that are hazardous to workers must be guarded. For belt/chain conveyors the v-belt or chain sprocket must be guarded by wire mesh with openings that meet CSA Standard Z432-94 (hands and fingers must not be able to reach the pinch point.)
- The guard must be secured with at least one fastener that requires a tool for removal.
- Both the underside and backside of the guard must be enclosed to prevent contact with moving parts.
- The in-running pinch point between the running belt and the head or tail spool must be fully enclosed.
- The spool must be designed to allow tracking adjustments (which must be done while the belt is moving) to be performed without removing the guard.
- Unless worker access to the conveyor is completely prevented by guarding, an emergency stopping system must be installed. In case of accidental contact.
- **Do not** perform maintenance on a conveyor until the motor disconnect is locked out.
- **Situations where lock/out is required, scheduled maintenance, unscheduled maintenance, cleaning equipment, clearing jams or materials.**
- Conveyor maintenance must be done by an authorized and qualified worker.
- Unclogging may create new specific hazards (such as the hazard of falling into the hopper, etc.) which must be analyzed before starting work.
- Keep clothing, fingers, hair and other body parts away from the conveyor.
- Do not climb, step, sit, or ride on the conveyor.
- Do not exceed the design limits when loading a conveyor.
- Do not remove or alter conveyor guards or safety devices.
- Do not wear loose clothing or jewellery while working with or near conveyors.
- Know the location and function of all start-stop controls.
- Keep all start-stop controls and emergency devices free of obstructions and within reach of operators and affected workers.
- All workers must be clear of the conveyor before it is started.
- Operate the conveyor with trained workers only.
- Keep the area around the conveyor clear of obstructions.
- Report all unsafe practices to your supervisor.
- Workers must not enter area under conveyor belt when in operation. Watch for posted signs.



Safe Work Practice  
Part 3 (49)

## MANLIFT PLATFORMS

A man lift platform shall only be operated by a competent worker who has been instructed and certified the use and operation of this equipment, as well as the daily inspections and maintenance required by the manufacturer, the types of working surface on which the equipment is designed to be used, the maximum rated working loads, special conditions or limitations of the equipment, the significance of alarms and the location of emergency controls.

- A man lift platform which is not working properly or which has sustained damage to critical components should not be used until repaired by a qualified mechanic.
- In the raised position, a manlift platform should only be used on surfaces specified by the manufacturer.
- A manlift platform should not be driven in a raised position close to holes, depressions, trenches or similar hazards.
- A manlift platform should not bear more than is rated working load and where possible; the loads should be distributed over the platforms.
- When manlift platforms are used to lift materials, ensure that the materials are firmly secured to the platform
- Do not place makeshift platforms such as boxes or proper access equipment such as ladders and scaffolds on a manlift platform to gain access to areas above.
- Overhanging loads should not be lifted on a manlift platform.
- A manlift platform or any other part of a manlift device must not be erected or moved closer than 3 m (10 ft) to overhead power lines unless the device is equipped for live electrical line work and the workers on the platform are qualified for such work.
- A manlift platform should not be used for pulling, pushing or dragging materials.
- The platform on a manlift device should not be extended by using cantilevered planks or similar platform materials. Only manufacturers' platform extension devices should be used.
- Planks or similar platform materials should not be used to bridge the gap between a manlift platform and other works areas.
- Workers should always maintain three-point contact (one hand and two feet or two hands and one foot) when getting on or off the platform of a manlift device.
- For all types of all-slab devices, the terrain on which the device is placed or over which it will travel must be firm enough to support the device and its rated working load.

Cont.....



## Manlift Platforms – pg. 2

- A manlift platform should not be used under high wind conditions. This is especially important for smaller scissor lifts and boom-type devices.
- When the manlift platform is not being used, turn off the power system to prevent exhaust fumes from accumulating in an enclosed work area.
- The manlift platform will not be modified in any way unless approved by the manufacturer.

### JOB SEQUENCE

### POTENTIAL HAZARDS

Approach manlift

Fellow work may be under the unit inspecting or repairing component.

Enter manlift.

Possibility of slipping or falling from platform.

Secure safety harness.

Fall from bucket / platform.

Move manlift (forward or Backward).

Tip manlift.

### Recommended Safe Job Procedure

Walk completely around unit making sure all is clear and not one is under unit.

Clean footwear.

Use handrail and grasp securely.

Refer to fall protection safe work practice.

Always lower bucket before moving manlift.

See also Safe Job Procedure “Working at Heights Over 1.2 Meters” Part 4 (55)



## DEFECTIVE TOOLS

Safe Work Practice  
Part 3 (50)

### GENERAL

Defective tools can cause serious and painful injuries. If a tool is defective in some way,

#### **DO NOT USE IT**

#### **BE AWARE OF PROBLEMS LIKE:**

- Chisels and wedges with mushroom heads
- Split or cracked handles.
- Chipped or broken drill bits
- Wrenches with worn our jaws.
- Tools, which are not complete, such as files without handles.

#### **TO ENSURE SAFE USE OF HAND TOOLS, REMEMBER:**

- Never use a defective tool.
- Double check all tools prior to use.

A defective tool must be removed from service and identified in a manner which will ensure it is not inadvertently returned to service until it has been made safe for use.

**AIR, GASOLINE OR ELECTRIC POWER TOOLS, REQUIRE SKILL AND COMPLETE ATTENTION ON THE PART OF THE USER EVEN WHEN THEY ARE IN GOOD CONDITION.**

#### **WATCH FOR PROBLEMS LIKE:**

- Broken or inoperative 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.
- Tools blade is cracked.
- The wrong grinder wheel is being used.
- The guard has been wedged back on a power saw.

Reference to Safety Regulations

Part 2-1 Identification of Known Safety Hazards

Maintenance of Equipment

**Never Use Defective Tools**



## PERSONAL PROTECTIVE EQUIPMENT – CLOTHING

### Safe Work Practice Part 3 (51)

- A worker who is provided with personal protective equipment by Milepost is required to use the personal protective equipment.
- Defective PPE must not be used. If personal protective equipment provided becomes defective or otherwise fails to provide the protection it was intended for, it must be discarded and replaced. Inform your supervisor as soon as possible and the company will provide new PPE.
- Where workers are routinely exposed to a hazardous material or substance, Milepost shall provide, and require workers to use, protective clothing and gloves that are adequate to prevent exposure of a worker's skin to the hazardous material or substance.
- Every worker shall wear clothing suitable for the conditions and work being performed.
- Shirts and full-length trousers shall be worn at all times while on the job.
- Close fitting and clean-cut clothing shall be worn.
- Head and facial hair shall be completely confined or cut short.
- Dangling neckwear, neckties, jewellery, rings or other similar items shall NOT be worn while at work.
- Hardhats must be worn at all times where required.
- Proper goggles, face shield and other eye protection must be worn when engaged in work, which there is an eye hazard.
- A worker shall wear approved work boots that meet the requirements of CSA Standard CAN/CSA-Z195-M92.







## Office Safety

### Safe Work Practice Part 3 (52)

#### **Responsibility**

All staff are responsible for appropriate safety precautions while in Milepost offices.

#### **General Precautions**

##### Lifting

- do not lift or move computers or any other heavy piece of equipment without help
- request assistance when moving file cabinets, desks and similar large and/or heavy items of furniture

##### Housekeeping

- keep all drawers and chairs pushed in under the desks and tables
- keep aisles, exits and stairs free of obstructions
- keep stored items orderly—if in a sprinkled building nothing should be permitted within 18 inches of a ceiling in order to insure proper operation of the fire sprinkler heads

##### Slips and Falls

- all electrical power cords should be taped out of the way and not allowed to cross walkways and aisles
- do not stand on chairs with wheels or folding chairs at any time
- keep aisles and walkways clear of debris—paper, paper clips, pencils, pens, etc.
- immediately clean up liquid spills in walkways and aisles
- report worn stair treads, broken floor tiles or broken handrails to Milepost management.
- in bad weather, wear footwear with traction soles when running errands to other buildings
- when using a ladder, make sure it's tall enough—do not use the top two steps on ladders over 5 feet tall

##### Punctures/Cuts

- when opening letters/packages use regular letter openers or retractable blade box cutters (retract blade when not in use)—DO NOT use knives, razor blades or scissors
- do not use a paper cutter unless a finger guard is firmly in place—be sure to place the blade down when not in use

##### Office Ergonomics

- Design efficient workstations, adjust your chair and other workstation items to maintain your body in a relaxed, neutral position.
- Vary tasks to avoid long periods of one activity.
- Take mini breaks to rest eyes and muscles. A break does not have to be a stop of work duties. However is should be a different activity such as changing from keyboarding to use of phone or filing.



## Office Safety

### Office Equipment

#### Printers/Copiers

- keep long hair and loose clothing away from moving parts
- turn off power or unplug the electrical connection when changing a cartridge or toner
- Always disconnect equipment before repairing or cleaning (paper shredders, copiers etc.)

#### Filing Cabinets

- place heavier materials in the lower drawers
- open only one drawer at a time to avoid destabilizing the cabinet

#### Additional Electrical Outlets/Extension Cords

- replace worn out cords and outdated office equipment

#### Lighting

- replace light bulb and old lighting fixtures
- use task lighting if required/adjust blinds

#### Emergency Procedures

- Is the Emergency Evacuation Route & Action Plan posted?
- Is there an Emergency Contact List posted?
- Is there a list of certified 1<sup>st</sup>. Aid personnel posted?





## Office Safety



## Operation of Concrete Vibrator

### Safe Work Practice

#### Part 3 (53)

All workers operating the concrete vibrator must be trained in its use, and in the safe handling of wet concrete. (See Safe Work Practice "Working Safely with Concrete" 3.034) (Job Procedure "Pouring Concrete" 4.29)

#### **Protective equipment should include:**

- Full-cover goggles or safety glasses with side shields to protect against splattering concrete
- Gauntlet style gloves appropriate for handling wet concrete and cover exposed skin
- Long-sleeved coveralls
- Steel toed CSA approved work boots, and hard hat.

#### **Operation of Concrete Vibrator**

- 1- Wall frames are secured to the form which has been adequately oiled.
- 2- As concrete is poured into the frame, place the vibrator into the highest levels of concrete first, and when a fairly even surface is obtained, insert it at regular intervals equivalent to the area affected by the vibrations for consolidation. Allow the weight of the head to penetrate the wet concrete on its own, then withdrawing it slowly.
- 3- Keep the vibrator stationary for 5-15 seconds depending on the mix, less time will not allow for proper consolidation or entrapped air to escape.
- 4- Vibrate with the head totally submerged in the concrete, maintaining consistency of spacing and vibration time. The vibrations cause the mixture to liquefy, reducing the internal friction of the mix components of cement, aggregate, and water. This allows the mix to move around more easily, allowing the concrete to flow into corners, around rebar and flush against the form face. This eliminates voids (honeycombing) and brings paste to the surface to assist in finishing. Since concrete flows better with vibration, the mix can contain less water, thereby providing greater strength for the finished product. Furthermore, the vibrations and liquification help air bubbles to escape. Entrapped air in the mix allows for a less dense mixture and therefore can lead to failures and blemishes. The vibrations help to bring those air bubbles to the surface where they escape. Do not over vibrate the concrete as it can cause cracking of the mortar.
- 5- Do not allow the vibrator to operate unless the tip is submerged in the concrete, this may cause the vibrator to overheat and cause the motor to burn out.
- 6- Workers operating the vibrator should familiarize themselves with each vibrator and mix design used. Changes in the surface appearance of the concrete and the sound or feel of the vibrator are often good indications that the concrete has been adequately consolidated. The pitch or tone of the vibrator will typically decrease when the vibrator is initially inserted into the concrete, because the frequency will be reduced. The frequency will then increase slightly then level off when the concrete is free of entrapped air.
- 7- Large air bubbles should stop rising to the surface as large aggregate particles embed themselves into the concrete, and a thin film of mortar (sheen) should appear on the surface which allows for easier floating /finishing of the slab.
- 8- If there is a considerable amount of time lapse between the placement of subsequent lifts, it may be necessary to revibrate the previous lift prior to placing additional concrete to minimize the potential for pour lines and cold joints.
- 9- Never use the vibrator to spread concrete, it should be deposited as close as possible to its final position.
- 10- Noting the quality of formed surfaces and defects during a post pour inspection is an important step in determining if the proper vibration procedures have been followed.



## Safe Work Practice Part 3 (54)

# Operation of Ground Heaters

Safe operation requires that all instructions and precautions be followed. Failure to comply with precautions can result in death, serious injury, and property loss or damage from fire, explosion, burns, asphyxiation, carbon monoxide poisoning, and/or electric shock. Injuries or property damage can be prevented by following the instructions in the manual and observing safety precautions that are posted with decals throughout the machine.



This is the safety alert symbol. It is used to alert you to potential personal hazards. Obey all safety messages that are placed on the machine. Operators must read and understand all material in the Operators Manual before attempting to operate it.

Hazards involved with the use of this machinery may include exposure to: heat, noise, exhaust fumes, burns, fire hazards, and tripping hazards from the hoses.

Wear all PPE appropriate to the job site, safety glasses, gloves, coveralls, steel toed work boots of at least 6" high and hard hat.

### PRE-OPERATIONAL CHECKS

- Keep unauthorized people away from the area.
- Keep guards in place/do not disable safety features.
- Keep safety and instruction decals clean and legible. Replace damaged decals.
- **DO NOT operate the burner while in an enclosed. Non-ventilated area. Carbon monoxide is an odorless and deadly poisonous gas.**
- Keep solid combustibles, such as building materials, paper, or cardboard at a safe distance away from the machine.
- Never use this machine in spaces which may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles, or unknown chemicals.
- Ensure that the machine is level and firm ground/chock wheels before operating.
- Always wear gloves when handling hot components.
- Never loosen or remove internal hoses while the pump or heater is running, or when the temperature is above 49 C.

### OPERATOR RESPONSIBILITY

1. Read and understand the operating instructions.
2. Only trained personnel are permitted to operate the machine.
3. Familiarize yourself with the location and proper use of all controls and safety devices.

### CARBON MONOXIDE HAZARDS

- Exhaust contains poisonous carbon monoxide, a colourless, odourless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.
- If you run the Glycol Heater in an area that is confined, or even partly enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.
- Ensure that you have adequate ventilation; use a flexible exhaust pipe to vent fumes if necessary.

### ELECTRIC SHOCK HAZARDS

- Be sure to check power cords and connections prior to use.
- Position the glycol heater so that neither it nor the operator are standing in water.\*

.....cont.



## Operation of Ground Heaters

### FIRE AND BURN HAZARDS

- The exhaust system gets hot enough to ignite some materials. Keep the glycol heater at least 3' away from buildings and other equipment or materials during operation.
- Keep flammable materials away from the glycol heater. Be careful not to touch the burner, hoses, or Heat Transfer Fluid while the machine is in operation. Let the engine cool before storing it away

### REFUEL WITH CARE

- **Do Not** start the engine if fuel has spilled or a fuel odor is present.
- Check the fuel lines and the fuel tank for leaks and cracks prior to starting the engine.
- Switch the burner off during re-fueling.
- **Do Not** refuel a hot or running engine.
- Refuel out doors in a well-ventilated area with the engine OFF.
- **Do Not** over fill the fuel tank.
- Never smoke near gasoline, and keep other flames and sparks away.
- Always store gasoline in an approved container.
- Make sure that any spilled fuel has been wiped up before starting engine.
- Regularly service engine as per manufacturer's recommendations.



# Job Procedures

The following are specific job procedures developed by Milepost Manufacturing Ltd.



## OPERATION OF COMPANY VEHICLES

### Job Procedure

#### Part 4 (1)

- Every driver shall, for each work day that the driver is engaged as a driver, maintain a true and accurate daily log in duplicate.
- Engine fluid levels are to be checked prior to initial start-up each day.
- Ensure windows and mirrors are clean before trip.
- Cargo transported by a vehicle shall be contained, immobilized, or secured so that it cannot: (a) leak, spill, blow off, fall from, fall through, or otherwise be dislodged from the vehicle, or (b) shift upon or within the vehicle to such an extent that the vehicle's stability or manoeuvrability is adversely affected.
- Drivers must inspect the cargo and its securing devices within the first 80 km., and re inspect cargo when a change of duty status occurs, after driving for 3 hours or after driving for 240 km.
- Chains and slings are to be regularly inspected for any signs of wear or other defects. Any defective rigging must be removed from service immediately.
- Vehicles are to be operated only by authorized persons with the proper license and certification for the vehicle being operated.
- All vehicles will be driven in a safe manner and within posted speed limits and according to all highway, private oil company, logging regulations.
- A pre-trip inspection is to be conducted prior to each trip on all trucks and trailers as per check list. Commercial vehicles must be inspected every 24 hours.
- A post-trip inspection to be conducted upon return from each trip as per checklist.
- If the driver authorized by Milepost Manufacturing Ltd. believes or suspects there is a safety defect in the commercial vehicle that was inspected, the driver or the person authorized shall report the defect to Milepost management: (a) without delay if the defect is a major defect, or (b) in a timely manner, and not later than the next required daily trip inspection, in all other cases.
- If a defect is noted during the inspection process which may affect the safe operation of the commercial motor vehicle it must be repaired or corrected prior to any trip. Then the inspection report must indicate that the repair has been completed or indicate that correction is not necessary.
- Ensure company vehicles receive regular maintenance as per manufacturer guidelines.
- Vehicles should be fuelled up and cleaned out upon return to yard.
- Pull-through parking techniques should be employed whenever practicable. Where pull-through techniques cannot be utilized, operators should back into the parking spot. Refer to the Safe Work Practice "Vehicle Backing Procedures".

Cont.....





## Operation of Company Vehicles

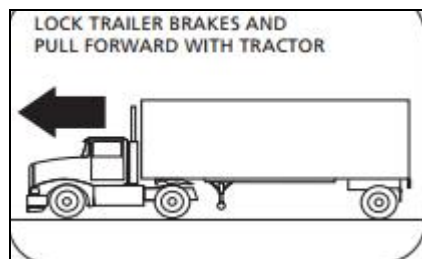
### Safe Work Practice

#### Part 4 (1)

- Provincial Regulations - A carrier shall not permit a driver during the driver's work shift:
  - (a) to exceed 13 hours of driving time, or
  - (b) to drive at any time after the driver has been on duty for 15 or more consecutive hours. A driver shall not during the driver's work shift: (a) exceed 13 hours of driving time, or
  - (b) drive at any time after the driver has been on duty for 15 or more consecutive hours. Federal Regulations- No motor carrier shall request, require, or allow a driver to drive and no driver shall drive after the driver has accumulated 13 hours of driving time in a day. No motor carrier shall request, require, or allow a driver to drive and no driver shall drive after the driver has accumulated 14 hours of on-duty time in a day.
- A driver must not drive if: (a) the driver's faculties are impaired by fatigue, illness, or a mental or physical infirmity to the point that it is unsafe for the driver to drive, (b) driving would jeopardize or be likely to jeopardize the safety or health of the public, the driver or other employees.

#### Operation of Fifth Wheel:

- Prior to coupling, the fifth wheel must be inspected to verify it is good condition. Check for loose fasteners, cracked or damaged kingpins, or other components.
- Clean grease grooves if a large amount of debris is present.
- Lubricate fifth wheel-to-trailer contact surfaces, if required.
- Inspect air line connections.
- Visually check the fifth wheel throat to ensure locks are completely open and ready to accept king pin.
- Chock trailer wheels.
- Travelling in a straight line, slowly back tractor to trailer. Ensure that the fifth wheel is below the upper coupler plate. If trailer is too low, use landing gear to raise the trailer height.
- Slowly back into the trailer, engaging kingpin in the fifth wheel.
- Raise the landing gear legs until the pads are just above the ground.
- Perform a PULL TEST as an initial check by locking the trailer brakes and pulling forward with the tractor to make sure that tractor-trailer separation does not occur.



Failure to properly couple the tractor and trailer could result in separation while in use which, could result in death or serious injury.



Job Procedure  
Part 4 (2)

## USE OF CELL PHONES/CAMERAS

**Do not drive and talk** on a cell phone. In the event you receive a phone call while driving, find a place to pull off the road and return the call.

- Drivers whose job responsibilities include driving or equipment operation shall refrain from using their cell phone while driving a Milepost vehicle. Drivers may not use cell phones or similar devices to receive or place calls, text messages, surf the internet, check phone messages, or receive or respond to email while driving.
- We recognize that other distractions occur during driving, however curbing the use of cell phones, while driving, is one way to minimize the risk of accidents for our employees. Therefore, drivers are required to park the vehicle in a safe location, then check messages or return calls.
- Drivers shall comply with all federal, provincial and local laws and regulations regarding the use of cell phones.
- Accidents incurred while the driver is using a cell phone will be considered to be preventable and the driver subject to disciplinary actions.
- Drivers who are charged with traffic violations resulting from the use of cell phone while driving will be responsible for all fines or citations that result from such actions.
- Shop employees are required to leave cell phones in their locker. Personal calls or texting are prohibited during work time. Phones can interfere with employee productivity, safety and are distracting to others. Personal calls must be made during non-work time. Employees should ensure that their families and friends are instructed in this policy.
- The use of cell phone cameras on Milepost property is strictly prohibited by employees or visitors unless permission is granted by Milepost senior management.
- Any 'On-Site' images and any other images taken by an employee in the course and scope of their employment are solely the property of Milepost Manufacturing Ltd. and not the property of the individual.
- No images taken by an employee in the course and scope of their employment may not be used, printed, copied, scanned, e-mailed, posted shared or distributed in any manner without the express written approval from Milepost senior management.

Employees who violate this policy will be subject to disciplinary actions, up to and including employment termination.



Job Procedure  
Part 4 (3)

## **EQUIPMENT START-UP / SHUT DOWN**

### **GENERAL**

Before starting equipment, do a walk around of the equipment and thorough pre-use inspection before start-up. Pre-use inspections must be recorded and kept available for operator or person performing maintenance.

Always look under, and around all equipment as there may be tools, other equipment or people that you will not see from the cab. Also, look for any visible oil/fluid leaks.

If there is a mechanics tag “**DO NOT START**” whether inside or outside of equipment, check with your Supervisor before starting equipment.

- Check all fluid levels, wipers and lights.
- Check tires for any air leaks or low tires.
- Check for any major oil leaks.

### **Report any concerns to your supervisor**

#### **Start-up**

- Turn key to the “on” position and start unit.
- Watch gauges to see if oil pressure comes up to normal reading. Ensure gauges are working.
- Check engine belts
- Check that alternator is charging, and air is building.
- Always allow unit to warm up at least ten (10) minutes in the summer, and fifteen (15) minutes in the winter before proceeding.

#### **Shut Down**

- Park machine in its designated area as per your supervisor’s instructions.
- All buckets are to be left in the down position.
- Check that the park brake is engaged.
- Allow the equipment to cool down for at least five (5) minutes before turning the unit off.
- Shut off engine.
- Turn the key to the off position.
- If equipped with air, drain all air tanks.
- Grease all pins.
- Return key to the
- Check tires for low air pressure and any major oil leaks.
- Write hour metre reading in the log book.
- Refuel vehicle at the end of shift, and log fuel amount for the pro-rated and IFTA vehicles.
- Complete the post trip inspection and inform your supervisor of any defects so that necessary repairs may be completed before the next use.



## Job Procedure

### Part 4 (4)

## USE OF POWER TOOLS

- Employees using hand and/or power tools and are exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with particular PPE necessary to protect them from the hazard.
- Always do a visual inspection of a tool before use, with attention to condition of power cords, extension cords, air lines, trigger mechanisms and bits, safety guards, blades, or discs. Perform any maintenance if required. Tag out any defective tool.
- A written or other permanent recording system or log must be immediately available to the operator, and to any other person involved with inspection and maintenance of the tool if the tool requires regular servicing.
- A power tool may only be operated by a competent person. A person must not be authorized to operate a power tool until the person has been adequately instructed and trained, and has demonstrated an ability to safely operate it.
- Hand and/or power tools shall be appropriate for the job for which they are intended and be used solely for the purposes for which they were designed.
- Effective safeguards shall be used where a worker may contact: (a) a dangerous moving part of a machine; (b) a pinch point, cutting edge, or point of a machine at which material is cut, shaped, bored, or formed; (c) an open flame; (d) a steam pipe or other surface with a temperature that exceeds or may exceed 80° Celsius; or (e) a cooled surface that is or may be less than minus 80° Celsius.
- Select tools that are ergonomically correct for the appropriate task
- Prior to drilling or saw cutting, be sure material is anchored securely to avoid whipping or spinning, or cutting/drilling into power/gas, water lines, etc.
- A person must not remove a safeguard from a machine that is operating if the safeguard is not designed to be removed when the machine is operating. A person must not 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 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, and (c) the safeguard functions properly once replaced. 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.

### **Pneumatic Power Tools**

- Shall be secured to the hose or whip by some positive means to prevent the tools from becoming accidentally disconnected.
- Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled.
- All pneumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed, which operate at more than 100psi shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.
- Compressed air shall not be used for cleaning purposed.
- The use of hoses for hoisting or lowering tools shall not be permitted.



Job Procedure  
Part 4 (5)

## GRINDER OPERATION

**DO NOT** use this power tool unless you have been instructed in its safe use and operation.

### PRE-OPERATIONAL CHECKS

- Safety glasses and face shields must be worn at all times – rings and jewellery must not be worn – long and loose hair must be tied back – close fitting protective clothing – CSA approved work boots – hearing protection.
- Remove all flammable materials from the work area.
- Ensure work area is clean, free from slip and trip hazards.
- Examine the power cord, plugs, sockets and power outlet for damage.
- Unplug power cord from power supply before inspecting, adjusting, removing or replacing parts.
- Inspect the grinding disc for damage. **Do Not** use damaged grinding discs.
- Always inspect the work piece to ensure that there aren't any items which might damage the grinding wheel or cause injury to the operator.
- Tag out a grinder if a deficiency is found – do not use the grinder until the deficiency has been corrected.
- Secure and support the work piece using clamps, bench vises, etc.
- Keep the power cord away from the grinding wheel and the material being ground.

### OPERATIONAL SAFETY PROCEDURES

- Ensure wheel guard is in place.
- Ensure other workers are not in the direct path of sparks, use screens if necessary.
- Keep fingers and hands & power cord clear of the grinding disc.
- Pull trigger to turn grinder on.
- Use both hands to maintain hold of the grinder.
- Allow grinder to reach full rpm before grinding.
- Position yourself to avoid over balancing.
- Avoid putting excessive pressure on abrasive wheel.
- Do not grind objects on sides of grinding wheel.
- Materials may become hot when grinding – use gloves.
- Do not use wheels that are cracked or those that excessively vibrate.
- Switch off grinder when done.
- Wait until the wheel has stopped turning before placing the grinder on the work surface.
- Wrap cord around grinder leaving a large loop at the grinder end so the cord will not break. Put tool away when finished. Clean bench and work area and place all waste material in bin.

### POTENTIAL HAZARDS

- Moving, rotating parts, inhalation of fumes and dust particles, movement of work piece, eye injuries, burns from hot materials, electrocution, sparks, sharp edges.
- **Safety Precautions** – Wear all necessary PPE, ensure guards are in place, inspect grinder before use, follow safe work practices and safe job procedures, tag out any defective tool, training.



Job Procedure  
Part 4 (6)

## **BENCH GRINDER OPERATION**

**DO NOT** use this machine without instruction

### **PRE-OPERATIONAL CHECKS**

- Check workspaces and walkways to ensure no slip/trip hazards are present.
- Ensure all guards and safety shields are in position before starting the grinder.
- Ensure that the wheels do not touch the work rest and that the gap between wheel and rest is no greater than 1.5mm.
- If the rest needs to be adjusted, unplug the machine first, then adjust it.
- Inspect the wheel to make sure it is not damaged.
- Ensure that nothing other than your stock will touch, bind, or get caught on the equipment.
- Locate and ensure you are familiar with the operation of the ON/OFF switch.
- Faulty equipment must not be used. Immediately report any suspect equipment.

### **OPERATIONAL SAFETY PROCEDURES**

- Stand to the side of the machine when starting up.
- Be alert when using the grinding wheel.
- Keep hands and arms well clear of the rotating wheel, ensure long hair is tied back.
- Let the wheel gain maximum speed before starting to grind.
- Do not grind on the side of the wheel.
- Small objects must not be held by hand.
- Never leave the machine running unattended.
- Do not bend down while the machine is running.
- Never force the workpiece against the wheel.
- Slowly move the workpiece across the face of the wheel in a uniform manner.
- Coolant spill on the floor should be immediately absorbed.

### **POTENTIAL HAZARDS**

- Hot metal sparks, sharp edges and burrs, eye injuries, entanglement, noise, wheels “run on” after switching off.

### **SAFETY PRECAUTIONS**

- Eye protection must be worn at all times, all regular PPE, no rings watches bracelets or other jewelry that could get caught in the equipment, long and loose hair must be tied back, close fitting protective clothing to cover arms and legs, and hearing protection.
- Switch grinder off when done and leave the machine in a clean and tidy state.



Job Procedure  
Part 4 (6)

## Bench Grinder Operation

### DISKS AND WHEELS

- Use only the exposed flat side of an abrasive disk for grinding. It is mounted on the machine faceplate of a grinding machine.
- Use only the periphery or circumference of an abrasive wheel for grinding. It is mounted either directly or with adapters, on the spindle or arbour of a grinding machine.
- Do not operate machines unless a safety guard is in place. Its main function is to retain the pieces of the disk or wheel if it should break in operation.
- To avoid breaking wheels ensure the work does not become wedged between the work rest and the wheel.
- Use a work rest and locate it not more than 3 mm from the wheel.
- Wear a face shield over safety glasses for protection against heavy particles.
- Never adjust the work rest while the wheel is in motion as the rest may slip and strike the wheel and break it or a finger could be caught between the wheel and the rest.
- Use the work rest to support and guide dressing tool. Use a hand stone to round off the wheel edges before and after dressing, to prevent the edges from chipping.
- Unplug grinder before changing disks.

See also Safe Work Practices Part 3 (7) GRINDING and Part 3 (8) USE OF PORTABLE GRINDERS

Refer to OH&S Code, Tools, Equipment and Machinery Part 25, 375(1)(2)(3)(4)





## Job Procedures

### Part 4 (7)

## USE OF HAND-HELD POWER CIRCULAR SAWS

**DO NOT** use this power tool without instruction in its safe use and operation.

### PRE-OPERATIONAL CHECKS

- Inspect the tool. **DO NOT** use broken power tools, ones that have cracks or splits in them, or tools that have had guards removed. Tag out any suspect power tool and remove from service until repaired.
- Ensure that the cutting blade is correct for the application and is in good condition.
- Keep the work area clear and free of loose tools or other slip/trip hazards.
- Approved safety equipment such as safety glasses or face shields are to be worn.
- Where harmful vapours or dusts are created, approved breathing protection is to be used.
- The power supply must be disconnected before making any adjustments to the saw or changing the blade.

### OPERATIONAL SAFETY PROCEDURES

- Use clamps or other practical way to secure and support piece to a stable platform before working on it. Holding pieces or items with only your hand or against your body leaves it unstable and may lead to loss of control and serious injury.
- Ensure all cords are clear of the cutting area before starting to cut.
- Do not force the power tool. This can make the tool less effective, damage it, or could make the tool slip.
- Use both hands to control the tool.
- Keep other body parts clear of the path of the tool.
- Direct chips etc. away from yourself and co-workers.
- Try to work in neutral positions as often as possible (wrists and back straight, elbows in, reduce back twisting by instead taking small steps to reposition, etc.) and try to avoid overreaching.
- Follow through on your cut and don't pull the saw out before the blade has come to a stop.
- Before cutting, check the stock for foreign objects or any other obstruction, which could cause the saw to "**KICK BACK**".
- When ripping, make sure the stock is held securely in place. Use a wedge to keep the stock from closing and causing the saw to bind.
- Before the saw is set down be sure the retracting guard has fully returned to its down position.
- De-energize the tool once you are finished using it and before changing blades.
- Let the tool cool before touching the blade.
- Return tool to its designated area.
- Maintenance is to be done according to the manufacturer's specifications.

### POTENTIAL HAZARDS

- Sharp edges, flying debris, splinters, dust, noise, electrical currents, awkward body position.

### SAFETY PRECAUTIONS

- All PPE ( safety glasses/ face shield, steel toes boots, gloves, coveralls, hearing protection)
  - Long or loose hair must be tied back
  - Do not wear loose clothing or anything that could become entangled in the rotating tool during use.
  - Follow safe work practices and safe job procedures.
  - Use the tool in a manner specified by the manufacturer
- Refer to OH&S Code Part 25-377(1)-381(2)





Job Procedures  
Part 4 (8)

## **PORTABLE GENERATOR OPERATION**

### **PRE-OPERATIONAL CHECKS**

- Generators are designed for use with electrical equipment that has suitable power requirements. Other uses can result in injury to the operator or damage to the generator and other property. Most injuries or property damage can be prevented by following the instructions in the manual and on the generator.

### **OPERATOR RESPONSIBILITY –**

1. Know how to stop the generator quickly in case of emergency.
2. Understand the use of all generator controls, output receptacles, and connections.
3. Ensure that you are familiar with the safe operation of the generator prior to use.

### **CARBON MONOXIDE HAZARDS**

- Exhaust contains poisonous carbon monoxide, a colourless, odourless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.
- If you run the generator in an area that is confined, or even partly enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.
- Never run your generator inside a garage, shop, or near open window or doors.
- Ensure that you have adequate ventilation; use a flexible exhaust pipe to vent fumes if necessary.

### **ELECTRIC SHOCK HAZARDS**

- Be sure to check power cords and connections prior to use.
- A generator produces enough electric power to cause a serious shock or electrocution if misused.
- Using a generator or electrical appliance in wet conditions, such as rain or snow, or when your hands are wet, could result in electrocution. Keep the generator dry.
- Check the electrical components on the control panel before each use. Moisture or ice can cause a malfunction or short circuit.

### **FIRE AND BURN HAZARDS**

- The exhaust system gets hot enough to ignite some materials. Keep the generator at least 3' away from buildings and other equipment or materials during operation.
- Do not enclose the generator in any structure.
- Keep flammable materials away from the generator.
- Be careful not to touch the muffler while it is hot. Let the engine cool before storing it away.

### **REFUEL WITH CARE**

- Generator to be full of fuel before starting job, and check oil before each use.
- Allow the engine to cool if the generator has been in operation.
- Refuel out doors in a well-ventilated area with the engine OFF.
- Do not over fill the fuel tank.
- Never smoke near gasoline, and keep other flames and sparks away.
- Always store gasoline in an approved container.
- Make sure that any spilled fuel has been wiped up before starting engine.
- Regularly service engine as per manufacturer's recommendations.
- Always shut off fuel valve when transporting machine.



## EXTENSION CORDS AND ELECTRICAL SAFETY

### Job Procedure

#### Part 4 (9)

- Only competent, qualified workers to construct, install, alter, repair, or maintain electrical equipment. Only qualified electrical workers may enter electrical rooms and enclosures containing live parts.
- Only a qualified electrical worker that has approved training in high voltage safety will be allowed to perform activities for the purpose of design, calibrating of equipment, inspection, monitoring, testing, and commissioning of equipment in high voltage installations. (Journeyman Electrician)
- All employees shall be provided basic electrical safety training. Employees shall be provided training on working safely with electricity, recognition of electrical hazards, prevention of electrical shock and arc flash, and recognition of electrical shock and arc flash hazard labels.
- Ensure that electrical equipment shall be of a type and rating approved for the specific purpose for which it is to be used.
- All electrical extension cords:
  - (a) Shall be approved for the intended use and location.
  - (b) Shall be fitted with approved cord end and attachment devices that are installed in an approved manor.
  - (c) Shall be provided with a grounding conductor
  - (d) Shall be maintained and protected from physical or mechanical damage
  - (e) Is plugged into an approved GFCI plug adapter or GFCI receptacle if used in a damp location.
- All tools or equipment with damaged or defective electrical components shall be tagged out and removed from service.
- Flammable material shall not be stored or placed close to electrical equipment.
- Before any work begins on an electrical conductor or electrical equipment and during the progress of that work, 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 must be implemented and approved before electrical work begins.
- PE requirements within the arc flash boundary shall be determined by completing an arc flash hazard analysis. 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. For more information, please refer to CSA Standard Z462.
- All workers and equipment must maintain a distance of 7 meters from energized overhead power lines.
- Where a worker may come in contact with an exposed energized electrical conductor and that contact may affect the health or safety of the worker, emergency procedures must be followed in the event of that contact: (a) to rescue a worker who has come into contact with a live conductor;
  - (b) to administer first aid to a worker who has sustained an electric shock; and
  - (c) to obtain medical assistance.
- Workers shall be adequately trained to implement the emergency procedures.
- A worker shall not approach high voltage electrical equipment within the safe limit of approach distance unless the equipment has been de-energized and locked and tagged out.

Cont.....



## Extension Cords and Electrical Safety

### Safe Job Procedure Part 4 (9)

#### **HAZARDS**

- Electric shock
- Tripping hazards
- Burns and falls from sudden shock.
- Injury to face and eyes from flying glass from lamp explosion.
- Fire

#### **PERSONAL PROTECTIVE EQUIPMENT**

- Safety glasses.
- Face shields (particular to job)
- Gloves
- Coveralls

#### **OPERATION**

- Never hold extension lights if working conditions are wet or if perspiring freely. This lowers skin resistance and increases the flow of current through the body in case of electric shock.
- Ensure proper grounding
- Ensure that all outer insulation on cords is intact. The insulation prevents conductors from touching each other and you.
- Temporary lights must be properly guarded to avoid contact with broken bulbs and to avoid potential shock.
- Use only properly rated cords. Do not use cable smaller than NO 16 AWG.
- Do not overload circuits.
- Do not use tools that are damaged. Inspect tools for any cracks, damaged insulation, broken or removed ground pins, frayed cords or loose parts.
- Survey the site for any overhead power lines and maintain a distance of at least 10' between equipment and overhead power lines.
- When performing maintenance on equipment or tools, ensure to lock out or tag out energy prior to servicing.

Avoid the following misuses of extension cords:

- Pulling them over sharp metal objects.
- Hanging them across equipment and hot surfaces.
- Kinking them.
- Straining the cords in operation so that the plug and fixture become frayed and expose live wires.
- Avoid pulling cord from the socket by the cord, pull on the plug.



# IRONWORKER OPERATON

## Job Procedure

### Part 4 (10)

1. Do not use the Ironworker Machine until you have been trained in its use by a worker competent in its operation. New workers shall be supervised while learning how to operate the Ironworker.
2. Wear appropriate P.P.E., i.e. safety glasses, safety boots, coveralls, hardhat, gloves and hearing protection.
3. Use the proper voltage outlet for your machine and be sure power cable is in good condition.
4. Lubricate machine according to manufacturer's specifications.
5. Ensure that all hydraulic hoses and pumps are in good working condition, and hydraulic fluid is at the correct level.
6. Assure that all guards and cover shields are down before starting machine. CAUTION: Do not remove guards.
7. Be sure foot controls operate freely.
8. Ensure that all switches and emergency shut off buttons are tight and working properly.
9. Keep hands off working tables and out of path of moving parts during operation.
10. Remove all material from the tables except what you are using.
11. Ensure that the proper punch and die fit and are in alignment. **Die must be 1/32" larger than the punch being used.**
12. Remove all tooling from punch end before starting shearing or cutting operations.
13. Assure all tooling is properly held in position before starting any operation.
14. Operate within manufacturer's specifications and capacity limits.
15. Watch for abnormal movement, or punch engaging by itself. If this occurs, do not use the punch until the problem has been rectified.
16. Watch for bolts, or nuts that may vibrate loose while the machine is being operated continuously.
17. Listen for excessive pump noise while operating the machine.
18. Keep foot off the foot pedal until activation is required.
19. Keep hands and fingers out of pinch points when moving steel onto the tables and through the rolling mechanism area.
20. Turn the machine off when not in use, in rest, or lunch breaks.

Cont.....



# IRONWORKER OPERATON

## Job Procedure Part 4 (10)

21. The area around the machine should be well lighted, dry, and as free as possible from obstructions.
22. Keep work area clean.
23. All maintenance and repair work should be performed by a person familiar with this machine and maintenance manual.
24. At the end of the working day, the operator should turn the power off to the machine.
25. Adjust limit switches when punching or bending to allow  $\frac{1}{4}$ " maximum clearance between bottom of stripper foot or bending punch and top of the material. Contact the factory for limit switch adjustments on special tooling.
26. Turn selector switch to the OFF position when changing tooling or performing maintenance work.

Hazards – pinch points, cuts, flying steel particles, unsecured material moving, and electrical cords.

Safety Precautions - proper training for use of machine, all necessary PPE, keep machine maintained in accordance with manufacturers specifications, follow safe work and safe job procedures.  
- Keep Hands and fingers out of cutting area!  
Use machine for designed purpose. Keep area clean.



## PUNCHING STEEL WITH IRONWORKERS

Job Procedure  
Part 4 (11)

### SAFETY PRECAUTIONS

**DO NOT** operate this machine unless you have been instructed in its safe use and operation and have been designated to operate the machine.

- This machine was designed for use by a single operator only.
- Wear appropriate P.P.E. i.e. coveralls, hardhat, safety boots, eye protection at all times, and gloves, hearing protection.
- Good lighting and welding curtains in place.
- Make sure that all guards and cover shields are in place before starting machine.
- **CAUTION: DO NOT REMOVE GUARDS**
- Keep hands off working tables and out of the path of moving parts during operation. Remove all material from the tables except for the work piece.
- Remove all tooling from the punch end before starting shearing or coping operations.
- Make sure that all tooling is properly held in position before starting any operation.
- The area around the machine should be well lighted, dry and as free from obstructions as possible.
- All maintenance and repair work should be performed by a person familiar with the machine.
- Turn switch to the "OFF" position when changing tooling or performing maintenance work.

### 1. FOR FRAME RAILS

- Pre-cut rails to desired length with the band saw.
- Move to ironworker using roller conveyor.
- Check ironworker tooling and related equipment for condition before starting up machine and proper punch/die is in use.
- Punch rebar holes in channel as per following Table 1.
- Be sure channel is facing flanges down (web up), and punch 1 rail at a time.
- Punch 1 – 3/16" lifting eye holes (top channels only) -2per channel if 20' channel at 9' centres, beginning 5'6" from one end – 1 hole in centre if channel is 15' or less in length.
- Be sure channel is facing flanges up (web down) when punching 1-3/16" holes.
- Be sure machine is shut down for tooling changes.
- Be sure hands are kept clear of punches and shears when machine is running.
- Be sure not to have hands under material, on conveyors as the conveyor rollers may pinch them.

Cont.....



## **PUNCHING STEEL WITH IRONWORKERS**

### **Job Procedure Part 4 (11)**

#### **2. FRAME ENDS**

- Pre-cut angle iron to desired length (see Table 1 for angle size)
- Move to ironworker using roller conveyor.
- Punch  $\frac{15}{16}$ " holes  $\frac{5}{8}$ " from one end and repeat at 12" centres.

(Male ends – punch one side of angle and shifted  $\frac{3}{8}$ " outwards from center leg)

(Female ends – punch both sides of angle and centred on leg on opposite leg from male and bolt holes and female notches.)

- Punch rebar hole (as per following Table 1).
- Female frame ends are moved to shear end of ironworker. Notch angle leg to width specified in Table. Shear both ends of the angle iron on the side opposite from the rebar holes.
- $\frac{3}{4}$ " N.C. nuts are welded over the  $\frac{15}{16}$ " punched holes on the inside of the angle iron using centre sunk studs for centering.
- Male and female ends are placed in racks for fabrication into the dike frames.

#### **3. LINER ATTACHMENTS**

- Pre-cut  $2" \times 2" \times \frac{3}{16}"$  angle iron to desired length with the band saw.
- Move to ironworker on conveyor. Keep hands out of the way.
- Punch slotted  $1" \times \frac{9}{16}"$  hole,  $5\text{--}3/4"$  from one end and repeat process at 12" centres along one side of the angle iron to the opposite end.
- Finished product is spray-painted and placed in racks.



## LATHE OPERATION

### Job Procedure Part 4 (12)

- **DO NOT** use this machine unless you have been instructed in its safe use and operation and have been designated to operate the machine.

### PRE-OPERATIONAL SAFETY CHECKS

- Check workspaces and walkways to ensure no slip/trip hazards are present.
- Locate and ensure you are familiar with the operation of the **ON/OFF** starter and **E-STOP**.
- Ensure all guards are in place and kill switch is operational.
- Only properly sharpened drill bits and cutting tools in good condition should be used. Dull drill bits and chipped or broken cutting tool must be removed from service.
- Check that the material is clamped tight in the chuck.
- Remove all tools from the bed and sides of the machine.
- Ensure the correct speed for the machining process is selected.
- Remove the chuck key before starting the lathe.
- Do not try to lift chucks or face plates that are too heavy for you.
- Faulty equipment must not be used. The operator must report any unsafe condition and the machine taken out of service until the problem has been corrected.
- Disconnect the lathe from power source (Lock Out/Tag Out- Control of Hazardous Energy if making repairs or servicing.)

### OPERATIONAL SAFETY CHECKS

- Never leave the lathe running unattended.
- Before making adjustments or measurements switch off and bring the machine to a complete stop.
- Do not attempt to slow/stop the chuck or revolving work by hand.
- Avoid letting filings build up on the tool or material. Stop the machine and remove it. Do not remove filings by hand, use a brush or other tool.
- Always remove the chuck key from the chuck.
- Do not store tool or parts on top of the machine.
- Switch the machine off and reset all guards to a fully closed position.
- Leave the machine in a safe, clean and tidy state.
- Ensure there is adequate lighting for the work area.

### POTENTIAL HAZARDS

- Flying objects-chuck key, cutting tool injury, rotating machine parts, eye injuries, entanglement, sharp metal splinters or filings.

**SAFETY PRECAUTIONS:** receive proper training, safety glasses must be worn at all times in work areas, steel toed boots, coveralls or protective clothing, do not wear loose fitting clothing, do not wear gloves, do not wear jewellery, keep hair tied back, follow safe work and safe job procedures.





## OXYACETYLENE STATION START UP & SHUT DOWN

### Job Procedure Part 4 (13)

- Always refer to oxygen as **oxygen**.
- Always refer to acetylene as **acetylene**.
- Remember and memorize acetylene is always “FIRST ON FIRST OFF”.
- Open acetylene bottle valve one half turn (3/4 turn maximum.)
- Open torch needle valve 1/2 turn.
- Adjust acetylene regulator to desired pressure (14-lb. Maximum). Allow 1 lb. For gauge discrepancy. This will allow for a measure of safety.
- Open oxygen cylinder valve to the full open position.
- Open oxygen torch needle valve 3/4 turns.
- Adjust oxygen regulator to the desired pressure.
- Shut off oxygen torch valve.
- Open acetylene torch valve and using a striker start the flame (Do not use a lighter, and or slag or another torch to light torch).
- Adjust acetylene flame.
- Slowly open torch oxygen valve and begin introducing oxygen to the flame until you have the desired flame required. Direct flame away from any flammable material.
- Put flame to edge of steel to be cut.
- When steel is heated, pull oxygen trigger to begin cutting
- Cut along desired lines or patterns until finished.

Cont.....



## OXYACETYLENE STATION START UP & SHUT DOWN

### Job Procedure Part 4 (13)

**TO SHUT OFF**, first close acetylene torch valve then oxygen torch valve (REMEMBER, ACETYLENE IS “FIRST ON FIRST OFF”).

- Shut off acetylene cylinder valve.
- Shut off oxygen cylinder valve.
- Open acetylene torch needle valve and drain the acetylene from the hose and regulator.
- Close acetylene regulator.
- Shut off oxygen cylinder valve.
- Open oxygen torch needle valve and drain the oxygen from the hose and regulator.
- When oxygen is drained completely, close the regulator valve.
- Close the oxygen torch needle valve.
- Wind up the hose and if the torch-cutting tip is not, **“DO NOT”** let it rest on the oxygen acetylene hose (**MAKE SURE IT IS AT ROOM TEMPERATURE**).

### REMOVING AND REPLACING A CYLINDER

- Oxygen acetylene station must be shut down as mentioned above in steps.
- Using an adjustable open-end wrench or open-end combination wrench.
- Break loose the regulator to cylinder nut and remove from the cylinder.
- Oxygen is right hand thread.
- Acetylene is left hand thread.
- Remove securing chain and cylinder and install the new cylinder and install the securing chain.
- Always **“CRACK”** the cylinder before installing the regulator.
- Cracking the cylinder means you momentarily open and close the cylinder valve to blow out any impurities that may have accumulated in the valve threads.
- After installing the regulator always check for leaks.
- Use water or a soap solution to check for leaks. **DO NOT USE A PETROLEUM BASED PRODUCT**

### SUMMARY

#### Acetylene hose is red in colour

Acetylene fittings are always left hand threads.

Acetylene fittings have a cut mark in the centre of the nuts (this means left hand threads).

Acetylene is always “FIRST ON FIRST OFF”

#### Oxygen hose is always green.

Keep oil and other flammables away from oxygen acetylene station.

Never leave a cylinder free standing. It is to be secured by a safety chain or bar at all times.

Cylinders not in use should always have the safety caps on them.

**Remember to drain hoses after each use.**





## WELDING MACHINE OPERATION

### Job Procedure Part 4 (14)

- Unravel cables and attach ground cable before turning on welder to prevent stinger and ground cable from arching.
- Attach ground cable to steel to be welded.
- Tighten spools
- Use appropriate breathing respirator if required.
- Insert welding rod into stinger.
- Lower helmet visor and touch rod to steel.
- Weld necessary area or until rod is used.
- When finished, remove welding rod end and dispose of it in metal scrap pail.
- Repeat as necessary.
- Turn off machine, coil cables and cover machine.
- Store new welding rods in a clean, dry place. Open boxes and low hydrogen rods must be stored in an oven.



## OVERHEAD SHOP CRANE OPERATION

### Job Procedure Part 4 (15)

- To be operated by trained personnel.
- Always position the hook directly over the load to be lifted.
- Never attempt to pull or skid a load to be lifted.
- Always check cable and lifting hook condition prior to use.
- On a monthly basis, crane must be greased.
- Chain load securely. \*NOTE – Never lift over rating capacity for chains or crane.
- Turn control box on
- Using direction buttons, move crane directly over load to be lifted.
- Attach chain to hook on crane.
- Ensure proper securement of the load.
- Use a tag line to control the load being moved.
- Using control box, lift and move the load to desired location. Do not lift load too high.
- Set load on **SECURE** blocking.
- Have somebody help guide material to destination.
- Announce that a load is being moved.

**Never weld while attached to a suspended load**



## **METAL BENDING MACHINE OPERATION**

### **Job Procedure Part 4 (16)**

- **DO NOT** use this machine unless you have been instructed in its safe use and operation and have been designated to operate the machine.

### **PRE-OPERATIONAL SAFETY CHECKS**

- Guards or safety devices must never be removed or adjusted, except by an authorized person for maintenance purposes.
- Working parts (ie. hinges) should be well lubricated and working surfaces kept free of rust and dirt.
- Check reservoir oil level prior to start-up of pump unit.
- Ensure no slip/trip hazards are present in workspaces and walkways.
- Be aware of other personnel in the immediate vicinity and ensure the area is clear before using equipment.
- Familiarise yourself with all machine operations and controls – refer to User Manual.
- When changing operations, read manual for proper set-up.
- Faulty equipment must not be used. The operator must report any unsafe condition and the machine taken out of service until the problem has been corrected.

### **OPERATIONAL SAFETY CHECKS**

- Never use this machine for bending metal that is beyond the machine's capacity with respect to thickness, shape, or type. Refer to the "User Manual"
- Wear appropriate PPE, i.e. coveralls, hardhat, safety boots, safety glasses and gloves.
- Be aware of pinch points between swinging arm and main frame and between hydraulic cylinder and main frame.
- Be sure no object is in the path of swinging material stock when bending.
- Keep hands clear of equipment while bending operation is in progress.
- Keep clear of moving handles and bending beam.

### **POTENTIAL HAZARDS**

- Sharp edges and burrs, squash/crush and pinch points, impact from handles or bending beam, electrical or electromagnetic energy.

### **SAFETY PRECAUTIONS**

- Ensure proper training has been given, wear all necessary PPE, Rings and jewellery must not be worn, Long or loose hair must be tied back, wear close fitting protective clothing, follow safe work and safe job procedures, check machine prior to use and maintain machine as per manufacturer's instructions. Ensure machine is turned off after use, and leave the work area clean and tidy. Return any accessories to storage area.

Cont'd....



Job Procedure  
Part 4 (16)

**METAL BENDING MACHINE OPERATION**

BE SURE TO READ ALL INSTRUCTIONS BEFORE STARTING UP.

INSTRUCTIONS FOR NO. 105B-6" INSIDE RADIUS TO BEND 1/2" THROUGH 1-1/2" SQUARE TUBING, USING THE HOSSFELD NO. 2 BENDER:

1. Mount forming die on center pin with horn pointing in a counter-clockwise direction.
2. To bend 1/2" through 1" 16 gauge thru 10 gauge square tubing. Mount back block on #19B "U" Pin in the bender Main Frame at the 3/4" diameter hole indicated by the number stamped on top of the back block. Mount #9B roller on #17B Flat Head Pin in the 7<sup>th</sup> 3/4" diameter hole of bender Swinging Frame.
3. To bend 1-1/8" 16 gauge through 10 gauge square tube bolt the back block onto #12B Oscillating Block of bender Main Frame. Mount #98B Roller on #17B Flat Head Pin in the 7<sup>th</sup> 3/4" diameter hole of bender swinging frame.
4. To bend 1-1/4" 14 gauge through 10 gauge square tube bolt the back block onto #12B Oscillating Block of bender Main Frame. Mount #9B Roller in the 7<sup>th</sup> 3/4" diameter hole of bender Swinging Frame.
5. When bending 1-1/2" square Tubing, use the 1/4" Washer to elevate the Form Die.
6. To bend 1-1/2" 14 gauge through 10 gauge square tube bolt the back block onto #12B Oscillating Block in bender Main Frame. Remove 5/8" nut, bolt and bender Swinging Frame Spacer. Insert Spacer into special roller and put spacer and roller into bender Swinging Frame using 5/8" bolt and nut.
7. When bending 1-1/8" through 1-1/2" square tubing, drill a 7/16" diameter hole centered on square tube stock and no less than 2-1/2" from end of square tubing. Insert 3/8" diameter dowel pin on horn of forming die into 7/16" diameter hole of square tube. Lock up tight against back block.
8. Keep draw block well greased and put it over square tube between square tube and #9B or Special Roller in bender Swinging Frame.
9. Pull bender Swing Frame with #9B or Special Roller up tight against draw block and proceed with the bend.
10. When using the Hydraulic for bends from 90 degrees through 180 degrees on 1/2" through 1-1/2" square tubing, move draw block forward on tubing and use #9B Roller on #17B Flat Head Pin in adjacent legs of "L" Type Swinging Frame.



## LOCKOUT / TAG OUT PROCEDURE

### Job Procedure Part 4 (17)

Employees who perform maintenance on equipment where lockout /tag-out may be performed will be provided awareness training in this procedure.

- Before a worker undertakes the maintenance, repair, test, or adjustment of a machine other than a power tool, he shall ensure that the machine is locked out and remains locked out during that activity if not doing so would put the worker at risk.
- Turn off and /or disconnect energy control points, such as electrical plugs, switches, valves and circuit breakers. Restrain or dissipate all stored energy.
- Turn off electrical supply to the equipment being worked on.
- Attach personal **“LOCK OUT”** lock on the electrical panel switch.
- If more than one worker is working at each location requiring hazardous energy to be controlled, each worker must attach a personal lock to each energy isolating device.
- If the manufacturer’s specifications require the machinery, equipment, or powered mobile equipment to remain operative while it is being serviced, repaired, tested, adjusted, or inspected, or there are no manufacturer’s specifications and it is not reasonably practicable to stop the equipment, procedures and controls will be implemented to ensure the machinery, equipment, or powered mobile equipment is serviced, repaired, tested, adjusted, or inspected safely. A copy of the written work practices and procedures shall be readily available for reference by workers.
- After a lock-out device has been installed or a lockout process has been initiated, the worker who installed the first lock or initiated the process shall check the machine to ensure that the machine is inoperative.
- Keep the key to the lock in your pocket until the service on the equipment is complete.
- If more than one person is working on the same piece of equipment, then both persons **must “LOCK OUT”**.
- In the event two locks will not fit on the electrical panel shut off switch, then one person **must** use an **“OUT OF SERVICE”** tag.
- All keys **must** be turned into your supervisor before going home after your work shift.

### **DO NOT ATTACH OR REMOVE ANOTHER PERSONS LOCK OR TAG**

**After all locks or tags have been removed, the operator may start equipment.**

- Once maintenance activities are complete, a supervisor must ensure that personnel are out of harm's way, slip, trip, and fall hazards have been cleared from the area, and guards have been replaced. Each worker who affixed a lock to an energy control point must remove his/her own lock(s). Equipment start-up may occur after all of the above are complete.

**Note:** Should an employee go home and leave their lock or tag attached after completion of service, they could be called back to work to remove it.





## MANUAL LIFTING

### Job Procedure Part 4 (18)

#### GENERAL

The most common injury sustained by workers is back injury. This is caused by improper lifting practises. Wherever possible use equipment to lift and move objects. Back Injury Prevention Program/Training will be given to all Milepost employees.

#### OPERATION

1. Before a worker manually lifts, lowers, pushes, or handles a load that could potentially cause injury to the worker, a hazard assessment must be performed to consider the weight, size, shape, number of times the load will be moved and the manner in which the load will be moved.
2. Size up the load, if you think you need help, ask for it.
3. Get a good footing.
4. Bend your knees; get a good grip on the object to be lifted.
5. Keep your back straight, lift with your legs, and keep the object being lifted close to your body.
6. Keep your balance and do not twist or turn as you lift.
7. To put object back down again, do not bend at the waist. Keep your back straight and bend your knees, keeping the object close to your body until it is placed in a secure position.
8. If the load is too heavy, bulky or awkward locate a cart or dolly or use a machine.
9. Report any back pain immediately to your supervisor.
10. Review activities of the worker, and of other workers doing similar tasks to identify work-related causes.
11. Take corrective measures to avoid further injuries if the causes of the symptoms are work related.
12. Workers must be responsible to know their own physical limitations and not exceed them.
13. A worker who may be exposed to a risk of MSI shall be educated in risk identification related to the work, including the recognition of early signs and symptoms of MSIs and their potential health effects. A worker to be assigned to work which requires specific measures to control the risk of MSI shall be trained in the use of those measures, including, where applicable, work procedures, mechanical aids and personal protective equipment.
14. Where a risk of musculoskeletal injury is identified, equipment that is designed, constructed, positioned, and maintained to reduce the harmful effects of an activity shall be used. Appropriate work practices and procedures to reduce the harmful effects of an activity, and/or implementing work schedules that incorporate rest and recovery periods, changes in workload, or other arrangements for alternating work to reduce the harmful effects of an activity will be implemented.
15. The activities that may cause or aggravate musculoskeletal injuries shall be regularly reviewed.

**Remember: Only lift what you can comfortably lift! For anything else use equipment or ask a co-worker to help you with awkward loads.**



## BOOSTING EQUIPMENT

### Job Procedures Part 4 (19)

#### OPERATION

1. Before boosting check to see whether the boosting vehicle has the same ground as the vehicle to be boosted and they are the same voltage. Then turn off boosting vehicle before hooking up cables.
2. If both negative ground, connect the ends of one cable to the positive terminal of each battery,
3. Connect one of the other cables to the negative terminal of the strong battery and to the engine block of the vehicle being started. **"DO NOT"** connect the cable to the negative terminal of the weak battery. You risk an explosion!
4. If both vehicles are positively grounded connect the ends of one cable to the negative terminals of each battery.
5. After cables are hooked up properly, start the boosting vehicle.

**When boosting a positive vehicle with a negative grounded vehicle the following procedures are to be followed:**

**Never allow any part of one vehicle to touch the other.**

6. Attach one end of a cable to the positive terminal of the negative grounded vehicle; attach the other end to the engine block of the positively grounded vehicle.
7. Attach one end of the other cable to the negative terminal of the vehicle.
8. Disconnect by reversing the above procedure.

#### Battery Chargers

When connecting to a battery if the battery charger does not have an on/off switch, unplug the charger prior to connecting. Current flowing in the circuit can cause sparks and arcing, resulting in undesirable pitting of the contact surfaces.

Avoid standing directly over a battery when charging in case of explosion.

#### Disconnecting and Installing Batteries

When removing a cable from a battery, always remove the cable from the grounded post first.

When installing a battery always connect the cable to the ungrounded post before the grounded post.

When installing or removing a battery ensure there is not current draw in the battery circuit. In other words turn off all accessories such as lights, radio, fan, door lights, etc.



## GENERAL HOUSEKEEPING

### Job Procedure Part 4 (20)

- As work is proceeding, be sure area is cleaned up behind you. Other contractors may have activities in the same area.
- Do not leave tools where they may be forgotten, stolen or may present a tripping or falling hazard.
- Store all material in an area away from where they could cause tripping or cluttering.
- Where garbage that may constitute a fire hazard is present, covered receptacles will be provided for the garbage that is suitable to the nature of the hazard.
- Make sure all materials are sealed, weather proof and safe before leaving the work area for the day.
- Don't forget your tool boxes too!

Let's face it. It is a lot easier to do your job when your work area is kept neat. Keep tools and equipment off the floor and stored in the proper places. This not only reduces tripping hazards but protects the equipment you use to earn a living. Mop up the water, clean up the oil spill, pick up the litter; don't let bad housekeeping get you or one of your co-workers hurt.

### **"IT'S EVERYONE'S JOB"**

Put trash in the proper container  
Store equipment and tools neatly  
Use protective equipment  
Clean up spills quickly





## REFUELING OF COMPANY VEHICLES

Job Procedure  
Part 4 (21)

**\*ABSOLUTELY NO SMOKING AROUND FUEL TANKS OR WHILE REFUELING VEHICLES !!!!!!!!!!!**

- Park vehicle to be fuelled beside fuel pump.
- Ensure a proper fire extinguisher is in the refuelling area and eyewash is readily accessible
- Ensure engine is turned off before starting to refuel.
- Ensure no smoking or sources of ignition (cell phones) within 3 metres (10 feet) of the refuelling operation.
- Open fuel tank
- Insert key in fuel pump
- Turn key and lift off fuel nozzle
- Insert fuel nozzle in vehicles fuel tank.
- Turn on fuel pump and squeeze trigger
- Ensure fuel nozzle is secure in fuel tank and use manual pressure on the nozzle lever at all times, (operator must not leave dispensing nozzle unattended during refuelling).
- Fill tank
- Replace the fuel tank cap and return nozzle to cradle, shutting off pump.
- Inspect the vehicle and the site for leaks or spills. All leaks must be repaired before the vehicle is put in use. All spills must be cleaned up or reported to the supervisor.



Job Procedure  
Part 4 (22)

## USING PRESSURE WASHER

- Wear gloves and eye protection
- Turn on water supply to pressure washer
- Ensure soap container is full
- Insert pressure nozzle,
- Squeeze the spray wand to prime the pump and purge air from the system
- Water must be turned on before starting, running pump dry will cause damage and void warranty
- Press buttons to start the pump, if hot water is desired, adjust the thermostat to the desired temperature, and turn burner switch on
- Adjust soap setting
- The washer is now ready to use
- With a firm grip on wash wand turn on power to pressure washer
- Point wand at area of vehicle or part to be cleaned
- Nozzle should be 12" to 24" from work area, pressure may damage surface if nozzle is too close
- If soap was used, run clear water through line to purge detergent
- If burner was used, turn off burner switch and allow pump to run cold water through line for several seconds
- Turn pump switch off
- Turn water supply off
- Squeeze trigger gun open to relieve system pressure
- Coil up hose and put wand away

**Pressure washers deliver extreme pressure and can cause serious injuries if misused. Don't point the pressure washer at people or put your hand in front of the nozzle. The pressurized water stream could actually penetrate your skin or cause serious cuts.**

**Potential Hazards:** high pressure, hot water, wet ground may cause you to slip, flying debris

**Safety Precautions:** wear PPE (safety glasses, hard hat, steel toed boots or rubbers, gloves, coveralls or possibly rain gear), ensure that you have been trained in the operation and use of the pressure washer, never point the wand at yourself or other workers in the area, watch footing, follow safe work practices and the safe job procedure for operation of the pressure washer, inform other workers that you will be using the pressure washer.



Job Procedure  
Part 4 (23)

## MOVING DIKE FORMS

- Appropriate P.P.E. is to be worn; i.e., hard hat, gloves and safety boots.
- Be sure cradle lifting bolts are screwed far enough into the dike forms so as not to bend or break when lifting.
- Inspect cables and shackles on lifting cradle prior to lifting.
- Suspend cradle over dike form with shop crane at proper height to allow chain hooks to hook to rebar.
- Attach tag line to the corner of the frame to help control during lifting.
- Lift slowly to be sure the form comes free evenly from the form below it.
- Crane operator shall have a helper to keep form from swinging and to assist in release from forms below.  
Both operator and helper should have good knowledge of hand signals prior to engaging in any lifting operation.
- Be sure all other persons are clear of this operation.
- Using travel modes on the shop crane, transport the form to desired location, and lower it carefully into position.
- Release the chain hooks from the form and repeat procedure for remaining forms to be moved.
- When placing first form in casting location, check level and adjust levelling bolts accordingly. Periodically check all forms in casting location to ensure the forms are consistent and level throughout stack.

**Potential Hazards:** pinch points and crush areas, faulty lifting equipment, other workers or equipment being struck, heavy weight, load swinging if the crane is not centered over load.

**Safety Precautions:** Ensure you are trained in the use of the overhead crane, know your hand signals, wear steel toed boots (CSA approved), safety glasses, hard hat, gloves, coveralls, (hearing protection as per OH&S guidelines Schedule 3, Table 1 or 85dBA), ensure lifting equipment is inspected prior to use and overhead crane receives daily inspection, follow safe work and safe job procedures, use tag line to control move.



## MOVING STEEL BUNDLES INTO SHOP

### Job Procedure Part 4 (24)

- Ensure that you are trained to operate the overhead crane.
- Ensure that the crane is rated to lift the weight of the load.
- Check lifting equipment prior to lifting material to ensure that it slings, hooks or chains are in good condition.
- With jib on loader, position bundle inside shop door on wooden blocks for overhead crane to finish.
- Position crane boom over the center of the bundle to be carried.
- Be sure all shackles and hooks are securely hooked or pinned.
- Wrap 2-legged chain sling around the bundle at 2 points each way from the centre and hook securely.
- Announce to other workers moving material in progress.
- Lift slowly a short distance to check for load balance.
- Set load down to adjust slings, if required.
- Proceed carefully to stacking area in shop carrying load as low as possible.

**\*NOTE:** Never exceed safe working load limit of chains, slings, or stacking table.

**Use a spotter and a tag line to control the material going into the shop, ensure that the operator sees the signals. Stand where he can see you clearly, use eye contact.**

**Potential Hazards:** load too heavy for crane, faulty lifting equipment, contacting other material, equipment or workers, lifting load too high, pinch points and crush potential.

**Safety Precautions:** Be trained to use the overhead crane, ensure daily checklist has been performed on the crane and it is properly maintained, check all rigging equipment prior to use (hooks, slings, chains etc.), follow the safe work practices and safe job procedure, wear steel toed boots (CSA approved) hard hat, gloves, coveralls, safety glasses, plan your route ahead of time and have a designated place to set load down, warn other workers that you are moving steel. Use a tag line to help control the load and a spotter.



## UNLOADING STEEL FROM TRUCKS

### Job Procedure Part 4 (25)

- Use the wheel loaders with fork attachment.
- Use spotter when unloading.
- Spread the forks as far apart as possible.
- Position the loads at the center of the bundle to be loaded.
- Slip the forks under the bundle as far as possible and lift slowly a short distance to check balance.
- Reposition the loader if necessary.
- Back away from the truck after checking the area behind the loader and lower the load close to the ground.
- Proceed carefully to the stacking area carrying the load as low as possible.
- Position the bundle on rack or timbers and lower the forks away from it.
- Back away carefully, checking behind you.

**Potential Hazards:** loads not properly balanced could slip; steel could hit other material or equipment if too close, backing into other material or equipment.

**Safety Precautions:** Do not use loader or other mobile equipment without proper training, ensure equipment is in good condition and properly maintained, keep windows clean, use a spotter to help move loads safely, keep load close to the ground, set the load on racks or dunnage, keep storage area organized, inform co-workers to stay clear of the area until you are finished unloading the steel.





## ASSEMBLY OF DIKE FRAMES 2ft. – 6ft.

### Job Procedure Part 4 (26)

- Check frame jig for square, initially.
- Bolt female end to frame jig.
- Place upper and lower rails on the jig.
- Secure rails with bracket to ensure that they do not fall off the jig.
- Weld lifting lugs onto the top rail
- Tack weld both rails to female end.
- Install and tack weld male end to both rails.
- Check for proper positioning of all holes in dike before proceeding (do not continue if holes are wrong)
- Do not proceed if rails are too long or too short
- Weld all four corners of dike
- Check dike for proper width, use spreader bars or bar clamps if necessary
- Install vertical reinforcing wire and weld into rails
- Grind all welds
- Unbolt female end from jig
- Use crane and proper rigging to turn dike over on jig
- Finish welding all four corners
- Weld water stop in female end
- Put horizontal bars in dike
- Weld water stop in male end
- Weld reinforcing wire grid intersection
- Grind all welds and check for missed welds
- Remove dike frame from jig and stack using shop crane
- Dike frame is then ready to proceed to the concrete shop
- Ensure that the job # is written on the dike frame
- All dikes over 5' shall have the reinforcing wire welded outside and inside of the rails and ends,
- All dikes over 5' shall have 2 additional reinforcing wire pieces welded on the angle at the lifting lugs for extra support when lifting dike.
- Only qualified personnel are to be involved in the welding and torch cutting processes and shall wear appropriate P.P.E. for the job.

**Note: Grid spacing and welding details may vary according to job specifications required. Always check drawings before proceeding with work.**

**Potential Hazards:** hot work, pinch points, sharp edges, electrical cords, welding materials and gases, heavy lifting, falling objects, fumes.

**Safety Precautions:** Ensure worker is properly trained in welding and torch cutting procedures, all PPE (welding helmet, steel toed boots, welding gloves, hearing protection, follow all safe work and safe job procedures, use equipment to lift material or get help from a co-worker, check electrical cords prior to use, check other tools and equipment, ensure that welding gases are secured and turned off when not in use, steel should be secured with bracket to the frame so as not to fall.



## **ASSEMBLY OF DIKE FRAMES OVER 6ft.**

Job Procedure  
Part 4 (27)

- Check frame jig for square, initially.
- Extend platform to accommodate size of dike frame
- Ensure that outrigger supports are welded onto the extensions to provide stability. (frames 10' or more)
- Lift rails onto jig and secure with bracket.
- Weld lift lugs in rails where required
- Set female end on jig
- Stand and tack both rails to female end
- Set male end on jig
- Tack weld male end to rails
- Check that all holes are correct
- Check that ends and rails are proper length
- Weld up all four corners of the dike
- Check dike for width, use spreader bars and bar clamps where required
- Put vertical reinforcing wire in dike and weld inside and outside to rails
- Weld in water stops
- Put horizontal reinforcing wire in dike, weld to water stop at one end
- Weld all reinforcing wire intersections where required as per drawings, weld to other water stop last
- Grind all welds
- Use crane to turn over dike frame on jig
- Finish welding corners, grind welds
- Remove dike from jig with crane and stack
- Dike is then ready to go over to the concrete shop
- Ensure that the job # is written on the dike frame
- Only qualified personnel are to be involved in the welding and torch cutting process and shall wear appropriate P.P.E. for the job.

**Note: Grid spacing and welding details may vary according to job specifications required. Always check drawings before proceeding with work.**

**Potential Hazards/Safety Precautions see pg. 35 Assembly of Dike Frames 2-6ft.**



Job Procedures  
Part 4 (28)

## INSTALLING DIKE FRAME ON FORMS

- Sweep debris off the dike form and grind off any welding tacks
- Oil the dike form to prevent concrete sticking. (If oil gets on floor, put floor dry on it immediately to prevent slipping.
- Paint dikes prior to installing on the form
- Lay the frame on the form and bolt male end securely to the form. Ensure that male end is seated flush on the angle end of the form and snug to the form plate. Tack weld into place.
- Install torque bolts through form angle iron bolt holes into female end. Bolts shall be sized properly so that when hand tight they are flush to the inside face of the dike nut plus or minus  $1/8''$ . From finger-tight position, tighten the top and bottom bolts consecutively so that the dike frame stretches  $0.03''$  as measured with the dial indicator. (Make note of how many turns and fractions of a turn is required to achieve the required stretch) The number of turns should provide a consistent measure for stretching the frame.
- Insert the middle torque bolts. Install bolt through form angle hole, then jam nut, and finally into female end. Bolt should be flush with inside face of nut. Use the jam nut to counteract the deflection in the female end by tightening against the form angle.
- Install side clamps at regular intervals along the length of the frame to secure rails to the form. Hold clamp at the top and press while using hammer to pound on clamp to form. Check channel rails are straight and adjust as clamps are placed. (Beware of clamps, they may slip and causing them to fly off. Keep hands and body clear when possible.)
- Liner attachments are greased prior to installation.
- Install the liner attachment carrying the threaded anchors onto the frame and tack weld each end at the required measurement up from the bottom rail.
- Tack weld liner attachment at intermediate points to maintain the measurement and level with dike frame.
- Install foam plugs into female end nuts. Ensure they are snug and flush with inside face of nut.
- Apply caulking bead along water stop adjacent to dike ends.

**Potential Hazards:** pinch points, slip and trip hazards, clamps that are under pressure can pop off with force, hot work, flash in eyes, noise, debris in eyes, repetitive movements, awkward body position, paint.

**Safety Precautions:** Follow safe work and safe job procedures, wear PPE, clean oil or other debris off the floor as much as possible, take breaks from repetitive tasks, do stretching exercises, have MSDS's for all chemical products readily available,



Job Procedure  
Part 4 (29)

## POURING CONCRETE

- Wear appropriate P.P.E., i.e., hard hat, coveralls, safety boots, eye protection, ear plugs and gloves.
- Be sure path is clear for transit mix truck to back in alongside dike forms. Keep body away from chute, at least an arms length. Never walk under chute.
- One person only is to direct the truck driver.
- Check concrete consistency and slump for optimum pouring conditions. **DO NOT ADD WATER!**
- Perform slump test and use pressure meter to measure air content. Slump and air tests must be performed as determined by QA/QC manual, and CSA Standards. Concrete samples will be taken at the same time and stored in the required method and duration, until the strength tests are performed. All testing will be performed in accordance with CSA standards. Documents will be retained on file.
- Adjust concrete chute on truck into position and signal driver where to begin pouring concrete mixture into the dike frame on the form.
- Constantly watch concrete mix as it is being poured to check consistency and for foreign material (i.e., rocks, clay lumps, hardened concrete lumps, etc.)
- Use the concrete vibrator constantly to fill the corners and rails and to ensure consistency in the pour. Use small vibrator on liner attachment angle.
- Trowel the concrete to a smooth and level finish once the frame is filled. Ensure concrete is flush or slightly recessed with base of liner attachment angle.
- Do not lift next dike form until all finishing is done.
- Install the next form with a mounted frame over the completed one, using the shop crane with a cradle.
- Be sure all cradle slings and shackles are in good condition and securely fastened.
- Be sure that cradle latches are fully engaged on form lifting bolts before lifting.
- Once the form is in place, repeat concrete pouring procedure.

**Potential Hazards:** guard eyes against splashes of aggregate materials, the mixer truck, ensure back up alarms are working, never walk under the chute, awkward body position, slip and trip hazards, use of overhead crane, pinch points, repetitive movements, wet concrete (possible burns), or dry concrete powder.

**Safety Precautions:** Use PPE, keep floor free from excess form oil and debris, MSDS for concrete mixture, communication with co-workers, direct driver of the mixer truck, take breaks, follow all safe work and safe job procedures.



Job Procedure  
Part 4 (30)

## STRIPPING DIKES

- Wear appropriate P.P.E., i.e., hardhat, coveralls, eye protection, safety boots, and gloves.
- Remove side clamps from dike form. Grab hold of top part of the clamp to control the release of the clamp. Then using a pry bar, slip it in behind clamp and pop clamp off the frame. Ensure that other workers are not in the line of fire of clamps that could possibly fly off.
- Using scrapers, remove excess concrete from liner attachment.
- Unbolt the attachment from the threaded anchors.
- Grind the tack welds from the attachment center and ends and remove the attachment. Grind tack welds smooth on dike frame.
- Scrape excess concrete off of the exposed dike frame and paint the frame and grinder marks.
- Scrape or grind excess concrete from attachment area.
- Using the shop crane with cable sling and lifting eyes, lift the dike section from the form.
- Scrape off remainder of excess concrete and paint remainder of dike frame.
- Inspect dike section for deficiencies, report, and repair as directed.
- Place dike section on the dike trailer and secure with a safety chain.
- Add dike sections until the dike trailer is loaded. Maximum load on trailer = 30,000 lbs.  
DO NOT EXCEED THIS WEIGHT.
  - When loaded use additional chains and boomer to secure load for transport to yard.
- Transport to storage area in the yard and unload as per loading and unloading procedures.

**Potential Hazards:** flying debris from grinding and scrapping off excess concrete, clamps under pressure can pop off, pinch points, crush areas, overhead lifting with the crane, faulty rigging, line of fire.

**Safety Precautions:** Use PPE, follow all safe work and safe job procedures, communicate with co-workers, use tag line to help control load, direct sparks and debris away from other workers, perform daily checks on all lifting equipment and rigging, replace any worn or damaged equipment as soon as possible.



Job Procedure  
Part 4 (31)

## FABRICATION OF POST CAPS

- Pre-cut material with bandsaw:
  - 2" pipe – 6" length
  - 4" channel – 6" length
  - 4" x 3/16" flat bar – 3" length.
- Weld flat bar over end of the channel.
- Weld 2" onto opposite end of the channel, using a jig to properly position.

**Potential Hazards:** cuts from bandsaw or sharp steel edges, material falling (cut ends etc.) welding hazards, welding flash, fumes, other workers in the area, grinding, metal fillings or other debris in eyes,

**Safety Precautions:** Wear all PPE, follow safe work practices and safe job procedures, secure material on the saw, focus on task, have cut ends placed in scrap metal bin as soon as task is done, keep floor area clean, clean any spill of cutting fluid immediately, keep bandsaw clean of any debris, wear hearing protection,



## LOADING DIKES ON TRUCKS

### Job Procedure Part 4 (32)

- Start engine to warm up after doing pre-trip inspection.
- Move the unit into position for safe loading. Choose an area that is level. If the trailer is sitting at too much of an angle it could cause the precast concrete sections to shift to one side causing an unsafe condition.
- Be sure all persons loading and unloading are wearing hard hats, safety boots, eye protection and gloves.
- Ensure that the signal person is identified.
- Assess materials or equipment to be loaded for proper weight distribution.
- Once load position is established, set dike support stands into pin pockets on the trailer.
- Use spreader bar for lift when needed.
- On a jobsite, fire-resistant coveralls are to be worn in addition to the above.
- Place 2 x 4 planking on base of stands perpendicular to the precast concrete sections on inside of support stands. Set dikes on side of support stands.
- Place first precast concrete section on truck with wheel loader or crane. (Note: Check dike sections and other load components for deficiencies and report to management prior to placing on truck.)
- Place a safety bolt in each lift eye and screw in the bolt as far as possible to the lift eye. These are to be left in lift eye.
- Use appropriate number of lifting eyes in dike section, i.e., 2 for 3' x 20' section, 1 for 10' section. Use proper rigging equipment, designed for intended load.
- Stand the precast section to an upright position, the section will rest against the two support stands. The sections should lean against the supports at a 15 degree angle at the quarter points of the sections, and must be anchored with a safety bolt and chain to the stand.
- Remove one of the lifting eyes and insert a safety bolt in its place. Then secure the precast section to the support stand with a safety chain, going around the bolt in the top of the section.
- NEVER remove second lifting eye out of wall until safety chain is in place and the section is secured. The loader operator will continue to hold the section until the safety chain is holding it securely in place. Then the second lift eye may be removed.
- Place wall sections consecutively on opposing sides of the support structure, this will balance the horizontal forces. Ensure that each section is secured at all times.
- Move safety chain to outside dike section each time another one is loaded.
- When the load is complete, secure as required by Provincial / Federal laws.
- Chains will be used to secure the concrete walls. The chains will be placed at  $\frac{1}{4}$  points of the precast walls and 1 chain on either side of the safety bolts. The safety bolts will ensure that there is no movement of the walls, as the chains are tightened on either side of the safety bolts.
- When shorter walls are required on a load, always load them on the outside of the larger precast sections.
- If the chains do not reach both the long and short walls, 2 more chains may need to be added to the end of the short precast walls or the short walls can be laid flat on the trailer and then secured.
- Weigh truck and trailer on yard scale to verify that load is within legal axle weight limits.
- Be sure to carry Bill of Lading with all loads, ensure that the Bill of Lading is signed off by client. Leave one copy with the client and bring the signed copy back to the office.
- On arrival at job site, check in with site supervisor for necessary orientation and hazard assessment.
- Determine best position of truck to facilitate unloading and placement of dike walls.
- Wear all personal protective equipment as required by Milepost and/or site supervisor.

**Potential Hazards:** Pinch points, crush areas, overhead lifting, lifting heavy loads, faulty lifting equipment or rigging, slip and trip hazards, getting on and off the trailer, being in the line of fire, walls not secured, poor communication with operator.

**Safety Precautions:** Keep fingers out of pinch points, check rigging equipment prior to use, ensure that pre-trip inspections are completed and any deficiency corrected before using equipment or rigging, faulty rigging must be removed from service immediately and replaced. Use provided ladder for access and egress from trailer deck, use 3pt. contact, do not stand directly in the line of fire, identify signal person prior to commencing work and only the identified signaler is to direct the operator, anyone may signal the operator in case an emergency stop is required.



## UNLOADING AND INSTALLING DIKES (Set on Pads)

### Job Procedure Part 4 (33)

When arriving upon site, walk around site, and do a hazard assessment of area.

Site shall be compacted as per contract specifications. 50mm of sand (no rocks) over containment area to provide a cushion for the liner. Dike perimeter shall be level.

- Park picker truck on flat and level ground.
- Do a visual inspection of the truck-mounted crane and run through one full extension cycle and rotation cycle from passenger side to driver side swinging over the rear of the truck.
- **Be sure safety chain is in place and load level before removing load chains.**
- To secure walls install an eye bolt into each outside wall and run safety chain through each eye bolt. Walls must be secured at all times.
- When load straps have been removed and walls secured with safety chain, you may proceed to next step.
- Measurements will be taken to determine the placement of the concrete pads that the walls will rest on.
- Once the measurements have been determined the pads will be placed accordingly along the path prepared for the walls.
- Steel braces will be laid out at each concrete pad. Walls may be set into place.
- Place an eye bolt in to one end of the wall and hook it to the sling. This must be done prior to taking off the safety chain. Once the one end is secured then the safety chain will be removed and hook the sling to the insert where the safety chain was. Then secure the opposite end to the lifting sling.
- Lift dike sections from trailer, one at a time.
- Never lift without riggers confirmation. Maintain eye contact with signaller.
- One person must guide the dike section using a tag line as it is being carried into position by the truck crane.
- Set the first dike into position as indicated by the corner marker of the containment system and install the brace at the male end of the wall.
- The brace will be bolted to the concrete pad and to the wall to secure the wall until the next wall is aligned to bolt up with male end of the wall.
- Undo bolts in the first wall and move the second wall into place, insert bolts immediately to secure walls together.

Cont.....





## UNLOADING AND INSTALLING DIKES

### Job Procedures Part 4 (33)

- Caulk inside of joint and securely bolt the 2 sections together.
- A double bead of caulking is placed in a “U” shape laterally between vertical caulking bead and inside of dike wall at liner attachment height.
- Install the remaining sections as per corner markers or supplied drawings.
- Adjust alignment as required, check measurements regularly to ensure corner will be in the correct position.
- Be sure all joints are caulked prior to bolting unless it is a capped system or top mount.
- All dike bolts are to be installed and tightened.
- Check that walls are straight, square and level
- Repeat this procedure until completion of the containment system.
- Place all equipment, tools, chains, etc., on truck.
- Check with site supervisor to be sure he is satisfied, and get the Certificate of Acceptance signed. Clean up any remaining garbage.
- Fill out log book as required.
- Advise Milepost office of job completion, and travel as instructed.



## UNLOADING AND INSTALLING DIKES over 6' (on clips)

### Job Procedure Part 4 (34)

- Do a walk around of the area to assess hazards.
- Move unit into position. Ensure that truck and trailer are parked on level ground.
- Signaller will be identified and will have a good understanding of hand signals
- Do a visual inspection of the truck mounted crane and run through one full extension cycle and rotate.
- Hook up hydraulic post pounder to picker truck and place posts into ground as far as picker arm will safely reach. Once posts have been set, hook up wall to picker rigging and place wall onto clips on the post. (as follows)
- 2 sets of swivel ring lifting eyes will be used, secure one lift eye in at each corner of dike wall
- Secure tagline to bolt holes in flange of wall
- Lift wall off trailer on to ground
- If required for project caulk inside of joint.
- Remove lifting eyes from bottom of dike wall (if wall is at a height of 6 ft. or more)
- Operator will slowly lift wall and extend boom until wall is totally upright.
- Slowly bring wall forward with crane
- Person on tag line will guide wall as it is being carried into position by the truck crane.
- Do not stand directly below wall or under the path where the wall will be carried. Ensure that the load does not pass over other workers.
- As wall is lowered into place, remove tag line
- Crane will continue to hold wall in place, adjustments will have to be made in order to align bolt holes
- Install bolts and tighten
- Check that walls are straight, square and level

Cont'd...



## UNLOADING AND INSTALLING DIKES over 6' (on clips)

### Job Procedure

#### Part 4 (34)

- Use ladder to undo lifting eyes and release (if wall is at a height of 6 ft. or more)
- Under no circumstances will a picker truck be used to remove posts.
- If required for project add caulking to joint
- Place all equipment, tools, chains, etc., on truck.
- Do a walk around to check system
- Check with site supervisor to be sure he is satisfied before leaving the site and have the Certificate of Acceptance signed. Clean up any remaining garbage.
- Fill out log book as required.
- Advise Milepost office of job completion, and travel as instructed.

#### NOTE:

Only a CSA approved step ladder will be used when lift eyes are removed. The ladder must be checked daily to ensure that it is in good condition for use.

The ladder must not extend above the containment wall as this is not a stable position; the steel along the top of the containment wall causes the ladder to slide. In addition to this factor, the 4-1 ratio for placement of an extension ladder is not always possible due to ground conditions, thus it is safer for the worker to use a step ladder for this process. A step ladder is also much easier to carry and move around than an extension ladder. Once the step ladder is in position, leaning against the wall, a worker will climb up enough steps to access the lift eye (never using the top two rungs of the ladder) a second worker will hold the ladder steady as lift eye is removed.

**Potential Hazards:** Pinch points, crush areas, overhead lifting, faulty lifting equipment, slip and trip hazards, getting on and off the trailer, being in the line of fire, wall not anchored properly, poor communication with operator, heavy lifting.

**Safety Precautions:** Keep fingers out of pinch and crush areas, ensure pre-trip inspections are being completed, inspect rigging prior to use, remove faulty rigging from service immediately and replace, use ladder provided to get on and off the trailer deck, use 3pt contact, don't stand in the line of fire, identify signal person prior to lifting, operator is to take directions only from identified signal person, anyone can signal the operator in case an emergency stop is required.



## LIFTING OUT DIKES OVER 6' (on clips)

### Job Procedure Part 4 (34.1)

- Do a walk around of the area to assess hazards. Determine area where sections will be placed and have dunnage ready to set section on.
- Ensure that no workers are in the area when moving pre-cast sections. Never lift loads over workers.
- Move excavator into position. Ensure the excavator is parked on level, stable ground.
- Signaller will be identified and will have a good understanding of hand signals.
- If the pre-cast section has been tac welded to the top clip, the weld will be removed with an angle grinder.
- Once the pre-cast section has all welds removed, lift eyes will be placed in the top of the wall in the 2 lift eye inserts.
- The lifting slings will then be secured to the lift eyes and hooked up to the excavator attachment. The tag line will be attached to the lift eye at this time to aid in controlling the movement of the section as it is placed on the dunnage.
- The operator will hold the pre-cast section securely, without placing excessive tension on the lifting device. Just enough tension to keep wall upright while the workers remove the bolts from the adjoining walls.
- Once the pre-cast section is free, the operator will lift the section slightly, workers will turn the section to an angle to enable the operator to slide the section out of the wall formation and move to the predetermined location. Dunnage must be available to set the pre-cast section on, and placed to support section running vertically along lift eye inserts. Remove tag line.
- Gasket from the inner flange of the wall and be removed and stored so that it can be replaced when the wall is returned to its original position. Bolts and other hardware will also be stored and replaced when required.
- Workers shall not stand directly below wall or under the path where the wall will be carried. The operator must ensure that the load does not pass over other workers.

**Potential Hazards:** Pinch points, crush areas, overhead lifting, faulty lifting equipment, slip and trip hazards, being in the line of fire, wall not secured properly, poor communication with operator.

**Safety Precautions:** Keep fingers out of pinch and crush areas, ensure pre-trip inspections are being completed, inspect rigging prior to use, remove faulty rigging from service immediately and replace, use 3pt contact, don't stand in the line of fire, identify signal person prior to lifting, operator is to take directions only from identified signal person, anyone can signal the operator in case an emergency stop is required.



## UNLOADING AND INSTALLING DIKES (Post System)

### Job Procedure Part 4 (35)

When arriving upon site, walk around site, and do a hazard assessment of area.

Site shall be compacted as per contract specifications. 50mm of sand (no rocks) over containment area to provide a cushion for the liner. Dike perimeter shall be level.

- Park picker truck on flat and level ground.
- Do a visual inspection of the truck-mounted crane and run through one full extension cycle and rotation cycle from passenger side to driver side swinging over the rear of the truck.
- **Be sure safety chain is in place and load level before removing load chains.**
- To secure walls install an eye bolt into each outside wall and run safety chain through each eye bolt. Walls must be secured at all times.
- When load straps have been removed and walls secured with safety chain, then you are ready to hook lifting device to first wall.
- Place an eye bolt in to one end of the wall and hook it to the sling. This must be done prior to taking off the safety chain. Once the one end is secured then the safety chain will be removed and hook the sling to the insert where the safety chain was. Then secure the opposite end to the lifting sling.
- Lift dike sections from trailer, one at a time.
- Never lift without riggers confirmation. Maintain eye contact with signaller.
- One person must guide the dike section using a tag line as it is being carried into position by the truck crane.
- Set the first dike positions as indicated by the corner markers and install the “deadman” at opposite end from corner to keep the section upright.
- Install the next section at 90° to the first section, again aligning with corner markers.
- Caulk inside of joint and securely bolt the 2 sections together.
- A double bead of caulking is placed in a “U” shape laterally between vertical caulking bead and inside of dike wall at liner attachment height.
- Remove the “deadman” support

Cont.....



## **UNLOADING AND INSTALLING DIKES (Post System)**

- Install the remaining sections as per corner markers or supplied drawings.
- A maximum of 3 dike sections (60') may be installed before posts are driven to support the dike sections.
- Adjust alignment as required
- Be sure all joints are caulked prior to bolting unless it is a capped system or top mount.
- All dike bolts are to be installed and tightened.
- Check that walls are straight, square and level.
- The hydraulic post pounder is then attached to the crane, with the safety hook properly latched.
- Check again to be sure there are no underground hazards prior to driving posts, confirm with site representative.
- Install post guide to the top of the dike wall, adjacent to a joint other than a corner, and tighten anchor bolts.
- Install a post in the guide and position pounder on the top of the post.
- Drive post downward until top is even with top of guide.
- Remove pounder and guide and install post cap, locking it over top of dike wall.
- Repeat this procedure for each joint in the dike wall except for corner joints.
- Under no circumstances will a picker be used to remove posts.
- Place all equipment, tools, chains, etc., on truck.
- Check with site supervisor to be sure he is satisfied, and get the Certificate of Acceptance signed. Clean up any remaining garbage.
- Fill out log book as required.
- Advise Milepost office of job completion, and travel as instructed.



## **Precast Concrete Dike System Storage**

Job Procedure  
Part 4 (36)

### **Dike Storage Requirements:**

- Base for dike storage should be level and to within +/- 25mm.
- Base for dike storage should be uniformly compacted to a minimum of 95% standard proctor density.
- For precast concrete sections thinner than 152 mm and longer than 3100 mm, it is preferred that the wall sections are stored upright against storage racks, piling supports or other structural support. The sections should rest against two supports at the quarter points of the sections. The sections should lean against the supports at a 15 degree angle from vertical (any less and the sections risk toppling away from support and any more the load on the support sections becomes excessive). Underneath the sections, lumber shall be placed perpendicular to the sections. Placing wall sections consecutively on opposing sides of the support structure will balance the horizontal forces. (NOTE: If upright storage is not feasible, follow the next paragraph for storage).
- For precast concrete sections 152 mm or thicker or 3100 mm or shorter, the section can be stored horizontally. Blocking must be placed upon the base and be leveled such that the load is transmitted uniformly to the base. The blocking shall be placed perpendicular to the section length at the quarter points of the length. Blocking must be used between each 152 mm or thicker section and every second section for less than 152 mm. The blocking must follow in the same vertical line through the stack of sections to ensure proper load transfer through the blocking. Do not stack more than 7 sections high.

### **Liner and Hardware Storage Requirements:**

- Geomembrane liners can be stored outside, ensure that the base it is stored upon will not damage or puncture the liner. Some liners are not UV resistant, so keep them covered from sunlight. Some liners are not pliable in cold temperatures, such liners should be stored in a warm enclosure prior to installation for 2-3 days.
- Geotextile can be stored outside, but should be covered and be elevated off the ground. Geotextile can absorb water, making it difficult to deploy, further more if it freezes, it is impossible to deploy.
- The bolting hardware should be stored in a dry, cool location.
- The polyurethane caulking must be kept dry and for application it must be kept warm. The caulking has a 12 month shelf life. Should the application of caulking not be required for more than 6 months, schedule receipt just prior to installation.



## Installation of Braces

### Job Procedure

#### Part 4 (37)

- Discuss with client the proposed installation and arrange for road closure if necessary to accommodate the work.
- The operator will walk around the area prior to driving the picker truck onto site to determine the best location in which to set up the truck. The ground should be stable and level. The operator will take into consideration any overhead obstructions or other potential obstacles in the proposed path of the crane.
- The operator will ensure that the outriggers are fully extended and that the legs are resting on the provided pads.
- The operator will complete the daily operating checklist prior to commencing any lift and inspect all rigging before use. (see Safe Work Practices “Operation of Picker Truck” Part 3(23) )
- A designated spotter will be used to direct the operator.
- The crew will begin to unstrap the load once the truck is in place, ensuring that safety chains are used to secure the braces from sliding as they are being unloaded.
- Workers must watch for pinch points and keep out of any crush areas and line of fire.
- The crew will hook up the lifting device to the brace and secure a tag line.
- A worker will hold the tag line and guide the brace as the picker moves it onto the ground beside the pile.
- The worker will then adjust the rigging to allow the picker to lift the brace, keeping it as straight as possible.
- Picker operator will set the brace on the pile according to the marks indicated by the surveyors.
- The operator will continue to hold the brace with the picker while the brace is welded into place on the pile.
- A worker will use a ladder to remove the lifting sling from the brace.
- This process will be repeated till the containment system is completed.

With careful planning and communication, this task will be done without incident. Housekeeping must be continuously maintained as the scope of is completed.





## UNLOADING LINER ROLLS FROM TRUCK

### Job Procedures Part 4 (38)

- This procedure involves the use of the wheel loader, jib and spreader bar.
- Position the jib over the center of the liner roll to be unloaded and have a helper hook the supplied slings to each end of the spreader bar.
- Lift the roll slowly and carefully a short distance to check balance and hook on a tag line.
- Never lay any liner directly on the ground.
- Move the roll carefully from the truck to the stacking rack and lower into place using the tag line as a guide. Never allow anyone to be directly below a roll of material.
- Hook slings and tag line and repeat procedure for next roll.
- Place timbers or planks between layers of rolls to maintain alignment of the stacks.
- A similar procedure is used to unload rolls of geotextile material from trucks.

**Potential Hazards:** slip and trip, crush areas, rolls becoming released from the spreader bar, rolls sliding, Standing on the rolls while hooking up to the spreader bar, getting on and off the trailer, communication with loader operator not good enough.

**Safety Precautions:** Ensure that load straps are not removed until you are sure that the load will not collapse, take rolls in consecutive order to ensure that the load does not collapse, have designated signal person direct the loader operator, use 3pt contact to get on and off the trailer deck,



## LOADING LINER ROLLER

### Job Procedure Part 4 (39)

- With wheel loader or forklift, place roll of liner material of desired thickness onto the roller assembly. Lift roll by web slings supplied.
- Never allow any part of a worker's body to extend under the roll of material when it is transported.
- Be sure material roll is placed in such a manner as to deploy from bottom front side of the roll.

**Potential Hazards:** slip/trip hazards, crush hazards, contact with the loader, pinch points, faulty lifting equipment,

**Safety Precautions:** communicate with loader operator, check rigging prior to use, ensure that equipment has pre-use inspection, stay out of the line of fire, keep fingers out of pinch points and stay out of crush areas, ensure that the roll is placed in such a manner as to deploy from the bottom side of the roll. **Ensure that the Emergency Shut Off** is working properly.



## **ASSEMBLING LINERS – Specific to Liner Technicians**

### **Job Procedure Part 4 (40)**

- Wear required personal protective equipment.
- With adequate space in shop or field installation to accommodate liner size and make sure work area is clean and dry.
- Check required liner size to determine length of sheets and number of sheets that are to be welded together for the finished product.
- Unroll sheet of liner material from liner roller using electric control to power the rollers.
- Deploy sheet of liner material along site using hand clamps to guide it and lay it out flat. Check end of sheet for squareness.
- Stop roller at desired length, mark and cut material with hook knife. Measuring and marking is done with tape measure and chalk line.
- Second panel of liner material is deployed over the first panel in the same manner but leaving approximately 3' of first panel exposed along one side.
- First panel is folded over second panel to overlap marks on second panel for the full length of both panels, and creased to remain in position. (Check overlap marks to ensure they are between 4" – 6").

### **FABRICATION USING WEDGE WELDER**

- Be sure wedge welder is properly adjusted for thickness of the material to be welded as per manufacturer's specifications.
- Preheat welder to desired temperature and program to desired speed, using manufacturer's instructions.
- Keep guide marks on welder aligned with overlap marks while machine travels along lap joint.
- Position wedge welder on liner and insert top layer of liner into the top feed of the wedge welder and engage clamp.
- Keep fingers out of hot area on the wedge welder.
- Do not allow the unit to sit in one place, as it will burn through the liner causing a repair to be made.
- You will be able to adjust the speed at which the wedge welder travels, it must travel at a speed slow enough to get a good seal.
- Be aware of hot liner material behind welder.
- Shut off heating element after last weld has been completed.

Cont.....



## Assembling Liners

Job Procedure  
Part 4 (40)

### FABRICATION USING LEISTER HEAT GUN AND EXTRUDER (Plastic Welder)

- Ensure liner is overlapped approximately 3"-4"
- Turn leister heat gun on to a temperature that will heat liner sufficiently to melt it together. If the heat gun is too hot, it will burn through the liner too fast. If the heat gun is not hot enough, it will not melt the liner enough to secure it together. You may have to experiment with the temperature to find what works best for you. As you gain experience with the heat gun, you will find that you can turn the heat up because you will be moving along a bit faster.
- Once the heat gun is turned on, make sure that it is not pointed at anything which could burn. It will become very hot and burn or melt anything that is too close. **Exercise extreme caution with the heat gun.**
- Appropriate gloves must be worn when using the heat gun, either a welder's glove or other non-flammable type glove.
- When heat gun has reached desired heat level, insert gun nozzle between liner sheets and apply pressure just along base of nozzle. Liner will melt together and be tacked sufficiently.
- Continue this process until you reach the end of the liner sheets and the sheets are completely tacked together.
- Once the heat gun has been used to tack together the sheets of liner, the seam must be buffed with rough sanding disk to ensure the bead of plastic welding will properly adhered to the liner.
- Bring out the plastic welder and adjust settings to bring heat to desired temperature.
- A test strip is to be welded at the start of each shift and after each time the welder is cooled down and restarted during the shift, or at 500 ft. of seaming, to verify that the equipment is operating properly.
- The person operating the plastic welder will run a bead of extrude along the seam, sealing the liner together.
- This process will be performed to completion of the liner fabrication.
- All liner will have appropriate QA/QC procedures performed along with a sample of the liner, this documentation will be placed in an envelope and retained in the job # file.
- Store all equipment in its proper place

**Safety Hazards:** strains and sprains, slip and trip hazards, burns, pinch points and crush areas, cuts,

**Safety Precautions:** keep floor area clean and tidy, put away any tools or other equipment, get help with heavy lifting, always cut away from yourself, keep fingers away from hot surfaces, ensure that clamps are very tight when pulling liner out



## **WEDGE WELDING OPERATION – Specific to Liner Technicians**

Job Procedure

Part 4 (41)

- To be used by trained personnel only.
- Always adjust and operate unite according to manufacturer’s specifications and recommendations. Refer to instruction manual to adjustment and maintenance directions.
- Appropriate P.P.E. is mandatory for field operations, i.e. coveralls, hard hat, eye protection and safety boots. Gloves are recommended as you are dealing with hot material.

### **Heating up the Wedge:**

Check condition of machine.

- Plug power cord into a 220V power supply.
- Turn temperature ON/OFF switch to the ON position. L.E.D. temperature control should display ambient temperature and audible alarm will sound.
- To silence audible alarm, press “Set” button once.
- Depress and hold “Set” button. Set Point temperature will be displayed. While holding down “Set” button, select desired set point temperature using ^ and v buttons. Release “Set” button.

*NOTE: Readout is in degrees Fahrenheit, unless otherwise specified. Recommended temperature settings follow:*

Note: The parameters listed below are only suggested starting points to be used when making a “prequalifying” sample weld. As ambient conditions and other variable change (i.e. dirt, moisture, etc.), the welding parameters must be adjusted by the field technician or operator.

Cont.....



Job Procedure  
Part 4 (41)

## Wedge Welding Operation

| Material                             | Wedge Temp<br>Setting | Travel Rate (Speed) | w/Nuried Steel Nip<br>Rollers | w/Silicon Rubber Nip<br>Rollers |
|--------------------------------------|-----------------------|---------------------|-------------------------------|---------------------------------|
| HDPE 20 mil                          | 660°F./350° C.        | 18 ft./min          | -                             | 20 & 30 mil or 40 mil           |
| HDPE 30 mil                          | 660°F./350° C.        | 16.5 ft./min        | 20 & 30 mil or 40 mil         | 20 & 30 mil or 40 mil           |
| HDPE 40 mil                          | 660°F./350° C.        | 13.5 ft./min        | 40 mil or 60 mil              | 40 mil or 60 mil                |
| HDPE 60 mil                          | 700°F. /370°C.        | 10.5 ft./min.       | 60 mil                        |                                 |
| HDPE 80 mil                          | 700°F. /370°C.        | 7.5 ft./min.        | 80 mil                        |                                 |
| HDPE 100 mil                         | 700°F. /370°C.        | 4.5 - 6ft./min      | 100 mil or 80 mil             |                                 |
| HDPE 120 mil                         | 700°F. /370°C.        | 3-4.5 ft./min       | 100 mil or 80 mil             |                                 |
| LLDPE 20 mil                         | 620°.F/326°C.         | 18 ft./min          | -                             | 40 mil or 60 mil                |
| LLDPE 30 mil                         | 620°F. /326°C.        | 16.5 ft./min        |                               | 40 mil or 60 mil                |
| LLDPE 40 mil                         | 640°F. /337°C.        | 13.5 ft./min        |                               | 40 mil                          |
| LLDPE 60 mil                         | 660°F./350° C.        | 7.5 ft./min.        | 80 mil                        | 80 mil                          |
| PVC, HYPALON<br>XR5, POLYPRO<br>ETC. | 625°F. /285°C.        | 9 ft./min           |                               | 40 mil or 60 mil                |

All parameters above are specified for use with a split Wedge (air channel) and split steel, or rubber, Nip Rollers.

- Whether you are welding small sample pieces, or large sheets, the loading of the material will be the same—with the Nip Rollers and Wedge in the Disengaged Position and Motor ON/OFF Switch in the OFF position.
- Position the Wedge-It in the seam, inserting first the bottom sheet of material under the wedge and between the nip rollers, and then the top sheet of material over the wedge and between the nip rollers. Sheet overlap should be approximately 4 to 6 inches.

Cont.....



### To Execute a Weld:

**Step 1:** Engage welding pressure by rotation Nip Pressure Cam Lever clockwise to desired pressure setting for thickness of material being welded.

➤ The following Nip Pressure Cam positions will assist you in achieving the desired pressure:

|                         |   |                     |
|-------------------------|---|---------------------|
| First position (click)  | = | 100 mil Setting     |
| Second position (click) | = | 80 mil Setting      |
| Third position (click)  | = | 60 mil Setting      |
| Fourth position (click) | = | 40 mil Setting      |
| Fifth position (click)  | = | 20 & 30 mil Setting |

**Step 2:** Turn Drive Motor ON/OFF Switch to the ON position and rotation the Motor Speed Control to achieve the desired travel speed. At this point, Motor Speed Readout should be displaying current travel speed.

**NOTE:** The speed at which the Wedge-It must travel to produce a quality weld will vary according to the mil thickness of the material being welded, the temperature of the material, etc. All these variables must be taken into consideration when choosing a speed setting.

**Step 3:** As soon as the Wedge-It begins to travel, rotate the Wedge Movement Handle counter-clockwise until the Wedge Lock-in Plunger drops into the Lock-in Hole. This should take little or no effort on the part of the operator. If it does, the Wedge has been set too close to the Nip Rollers and will need to be re-adjusted.

### Removing unit at end of the seam:

**Step 4:** Just when the Nip Rollers have reached the end of the seam, extract the Wedge-It in the following order:

1. Disengage Nip Roller pressure.
2. Turn Drive Motor Switch to OFF.
3. Disengage Wedge by pulling out ring on Wedge Lock-in Plunger and rotating Wedge Movement Handle clockwise.

### Welding Procedure Summary

Starting Weld -

1. Engage welding pressure
2. Turn Drive Motor ON
3. Engage Wedge

Ending Weld -

1. Disengage welding pressure
2. Turn Drive Motor OFF
3. Disengage Wedge

**Remember:** Always engage wedge last when starting a weld and disengage wedge last at the end of the weld.



## Job Procedure

## EXTRUSION WELDING OPERATIONS –

### Part 4 (43)

### Specific to Liner Technicians

- To be used by trained personnel only.
- Always adjust and operate unit according to manufacturer's specifications and recommendations. Refer to instruction manual for adjustment and maintenance directions.
- Appropriate P.P.E. is mandatory for field operations, i.e. coveralls, hard hat eye protection and safety boots. Gloves are recommended as you are dealing with hot material.

#### 1. **Welder pre heat-up procedure:**

- Remove welder from shipping/storage case
- Loosen large knob on side of unit, adjust handle to desired position, and retighten knob.
- Make sure power supply and all extension cords are set up for 220 V single-phase operations.
- Recommended extension cords size for the X2-EX is 12 gauge.
- Check cord for breaks or cuts, etc.
- Recommended maximum length of extension cord is 100 feet.
- Recommended minimum size generator is 6.5 KW.

#### 2. **Heat-up procedure:**

- Plug welder into 220 V power supply. Preheat air blower will come on and both temperature controllers will light up. If blower does not come on, switch blower ON/OFF switch located on main temperature control panel to the "ON" position. (New models do not have this ON/OFF switch)
- Set desired temperature set points on bottom (heat blanket) and top (air temp.) temperature controllers as follows:

##### 2A **Rod melt temperature (heat blanket, bottom controller)**

- Depress the blue "set" button and hold—the set point is now displayed and can be adjusted by pushing the up or down arrow buttons. Releasing the blue "set" button will allow you to view the extrude temperature.
- The low alarm value is 350 degrees F. and cannot be adjusted without accessing the program menu. The low alarm (cold start protection) operation is as follows. The temperature controller will not let the drill run until the extrudate temperature has reached the low alarm value (350° F.) as indicated by the #2 light turning off (the #2 is located just to the right of the temperature display).

#2 light "ON": The drill will not run

#2 light "OFF": The drill will run.

##### 2B. **Pre-heat air temperature (Leister blower, top controller):**

- Depress the blue "set" button and hold—the set point is now displayed and can be adjusted by pushing the up and down arrow buttons. Releasing the blue "set" button will allow you to view the pre-heat temperature.

Cont.....





## EXTRUSION WELDING OPERATIONS –

### Job Procedure

#### Part 4 (43)

**NOTE:** Recommended temperature settings will vary depending on the type and thickness of the material you are welding as well as ambient conditions and other variables. Columbine recommends the following initial settings:

| Material       | Extrudate Temp.    | Air Temp.          |
|----------------|--------------------|--------------------|
| PE             | 465 degrees F.     | 350-400 degrees F. |
| PP             | 450 degrees F.     | 325–375 degrees F. |
| Winter (40 ml) | 490-500 degrees F. | 490-500 degrees F. |

Temperature controllers are set to read in Fahrenheit from the factory unless otherwise specified.

The extrudate temperature will begin to rise automatically. To activate element for pre-heat air, move rocker switch on the back of the green blower unit to the left or 1 position. The air temperature will rise rapidly and stabilize at set point in approx. 5 minutes.

### WARNING!

**BE CAREFUL NOT TO TOUCH METAL PARTS OF WELDER. TOUCHING THESE PARTS WITH BARE HANDS WILL CAUSE SEVERE BURNS!!!**

**Always purge extrude (rod) from Extruder when shutting it down. Then cool it down after purging.**

#### 3. Welding operation

- After allowing 10 minutes for all temperatures to equalize, pull trigger on drive motor to start motor turning.
- Begin feeding welding rod (4 or 5mm. round) into feedhole located on bottom of barrel near handle pivot point.
- You may need to change or modify Teflon welding shoe or modify it to fit your welding application. Contact Columbine for details.

**NOTE: MAKE SURE WELDING ROD IS CLEAN AND DRY**

#### 4. Cool-down procedure

- Always purge rod.
- Once you have finished welding for the day or are done welding for an hour or so, cool down the air heater unit in the following manner: - Move rocker switch on the back of the green blower unit to the right or "O" position. This will stop power to the heating element. It is not necessary to run the set point temperature down to achieve this:
- After waiting approximately 5 minutes for the air to cool down, simply un-plug power cord. This will allow the entire unit to cool down for storage.

#### 5. General Information

- Avoid exposing the unit to moisture and never weld in the rain.
- Drill motor and blower motor both produce sparks. Do not use unit in areas where flammable gases are present.
- Refer to troubleshooting guide for repair information.



Job Procedure  
Part 4 (44)

**INSTALLING LINER ON SITE**

- Meet with designated site representative to review the installation plan and complete site orientation. Perform walk around installation site to determine best access for the picker truck and crew truck. Discuss with the client disposal of garbage.
- Complete a site hazard assessment with all crew members and complete the Safe Work Permit.
- Wear all personal protective equipment, i.e. hard hat, eye protection, fire retardant coveralls, safety boots and gloves. The site hazard assessment will determine the requirement for H2S or gas monitors.
- If it is deemed necessary to wear personal monitors, they must be bump tested at the beginning of each day.
- The site shall be compacted as per contract specifications. 50mm of sand (no rocks) should be placed over the containment system area to provide a cushion for the liner. Dike perimeter shall be level.
- Install studs into threaded inserts in dike walls and install gasket.
- Roll out liner and position it to ensure enough material on all sides to fasten to dike wall.
- Install a stud in every hole along remainder of dike wall. Install gasket on studs with hollow punch, stretching enough to keep it straight.
- Form liner to wall and fit it over the studs using a rubber mallet. Be sure liner is fitted into corners enough to avoid stretching and tearing when installing liner attachments. Start in middle of wall and work towards corners.
- Fold corners carefully and correctly before punching onto the studs. Folded liner at corners is to be between exposed liner and dike wall.
- Cut liner attachment corner angles with electric band saw or approved equipment.
- Install angles onto studs and tighten with nuts.
- Install liner bolts and tighten with electric impact wrench.
- Cut off excess liner above liner attachments.
- Check tightness of all bolts.
- Using Sikaflex caulking material, caulk all joints in dike walls and all along top of liner attachments. Be sure corners are completely sealed, extending caulking to the top of the liner attachments.
- Pick up tools, equipment, and debris from jobsite. Ensure that garbage is disposed of according to plan determined by site representative. All required PPE (gloves etc.) will be worn when disposing of garbage.
- Clean tools and equipment and properly place in truck.
- Recheck installation to be sure everything has been done properly and completely.
- Have site supervisor sign off work permit/hazard assessment – Advise Milepost office of job completion.

Cont.....

## **INSTALLING LINER ON SITE**

### **Liner Cap Installation:**

- Fold the perimeter of the liner inside the dike walls
- Unfold the liner up the wall and over the top
- Place the steel caps on top of the dike wall and liner
- The liner will have to be cut in the corners where the liner folds over the wall. Do not cut the liner inside the dike walls as this will compromise the containment.
- 50-100 mm. of sand should be placed over the liner to protect it from mechanical damage and eliminate the slipping hazard
- Place the non-woven geo-textile under the tank base for added protection for the liner

### **Potential Hazards**

- Slip/trip hazards
- Awkward body position
- Pinch points
- Other workers or equipment in the area
- Working with hot welding equipment
- Use of knives
- Site specific hazards (H2S etc.)
- Over exertion

### **Safety Precautions**

- Ensure all garbage or tools are put in the proper place so they do not create a tripping hazard
- Use equipment or get other workers to assist with laying out the liner
- Work with co-workers to lift heavy objects
- Wear all required PPE
- Follow all Safework Practices and Safe Job Procedures
- Always cut away from yourself
- Use Kevlar gloves
- Obey all site specific rules
- Take breaks often and stay hydrate



Job Procedure  
Part (45)

## FORKLIFT OPERATION

Forklifts are very useful in our every day operations. They are also a source of safety hazards. By complying with the following safety procedures the hazards will be eliminated or at least minimized.

Each employee who operates a forklift will have completed the Milepost In-House training program prior to operating these vehicles. The Forklift Training Program consists of (1) - Formal Instruction with videos and written material. This training is taught by an employee that has a certified to teach a Forklift Training Program. (2) – Practical trainee exercises. Training reduces possible injury or death to you and your fellow workers as well as prevent possible equipment and property damage.

Forklifts must be inspected daily, prior to use to ensure that the vehicle is safe to operate. A record book to log these inspections will be kept on the machine. The operator will record the daily inspection and note any deficiencies. If any deficiencies are noted, they must be reported to the supervisor immediately.

If your inspection of the forklift components reveals any type of deficiency, tag out! Do not operate that forklift until the deficiencies have been repaired.

### Pre-Operating Check:

1. Check the data plate to determine if the load capacity is sufficient for the load that is going to be lifted. Never exceed the maximum load capacity.
2. Examine the forks for distortions and cracks.
3. Check the condition of the tilting and lifting mechanism including the chains and cables for the correct tension.
4. Inspect the driver's seat.
5. Check the tires to see if they are properly inflated. They should be free of cuts, abrasions, nails and screws.
6. Check the level of the hydraulic fluids and oil levels.
7. Check the condition of all-hydraulic hoses and connections.
8. Be sure that all warning devices, such as the horn and the back up alarm are fully functional.
9. Be sure that your safety boots are dry and clean. Wet and / or oil stained safety boots will create a hazard due to the potential to lose your grip when getting on the forklift and losing control when operating the foot pedals.
10. Check brakes in forward and reverse. This enables you to safely check the brakes before they may be required in more demanding circumstances. If the brakes are not functioning properly you should park the forklift and immediately report this to your supervisor. The forklift should not be used until the brakes are repaired and functioning properly.



Job Procedure  
Part 4 (46)

## **FORKLIFT OPERATING PROCEDURES**

- 1) When traveling always keep the forks in a lowered position so that they safely just clear the ground. This lowers the centre of gravity and thus provides greater stability for the load and for the forklift.
- 2) Stay alert and constantly scan the area to be traveled. Before proceeding in any direction, always check to see that the area of travel is clear. Look all around before making sharp turns.
- 3) You should always be aware of overhead hazards such as low ceilings, sprinkler systems and electrical wires.
- 4) When you are approaching a blind corner slow the forklift down, stop if necessary and sound the horn before proceeding.
- 5) Accelerate evenly and never travel so fast that you cannot stop easily.
- 6) Check brakes in forward and reverse. This enables you to safely check the brakes before they may be required in more demanding circumstances. If the brakes are not functioning properly you should park the forklift and immediately report this to your supervisor. The forklift should not be used until the brakes are repaired and functioning properly.
- 7) Always check the brakes before entering a ramp or grade.
- 8) When ascending or descending a slope, the forks should always be pointing up the slope if carrying a load. Therefore, travel up a slope in forward and in reverse down a slope. Avoid going across a slope. If unloaded, the forks should always be pointing down the slope. These measures will optimize the center of gravity and thus maximize the stability of the forklift and the load.
- 9) Accelerate evenly and never travel so fast that you cannot stop easily.
- 10) If the load obstructs your forward view, then travel in reverse so that you always have a clear path to be traveled.
- 11) Avoid dragging the forks when inserting or withdrawing from a load.
- 12) When parking the forklift, do not block emergency exits, access to safety equipment or any passageways. Park on a level surface and set the forks on flat ground. Then turn off the power and apply the parking brakes.
- 13) Close propane valve on propane tank.
- 14) If you must park on a slope, use chocks to block the wheels.
- 15) When using a forklift with personnel platform, the operator shall:
  - i) Ensure that the working area is clear of objects and people.
  - ii) Ensure that the person on the platform is wearing a safety belt attached to the platform.
  - iii) Remain at the controls at all times while a person is on the platform.
  - iv) DO not travel with a person on the platform.



## Loader Operating Procedures

### Job Procedure

#### Part 4 (47)

1. When traveling with the forks or bucket keep them low so that they just safely clear the ground.
2. This lowers the center of gravity and gives more stability to the load.
3. Stay alert and constantly scan the area to be traveled. Before proceeding in any direction, always check to see that the area of travel is clear. Look all around before making sharp turns.
4. When backing, if you are not 100% sure that the way is clear STOP exit machine and check or have a spotter check.
5. You should always be aware of overhead hazards such as low ceilings, sprinkler systems or electrical wires. Also when entering or exiting a building be sure that the highest point of the loader (jib, fork rack or bucket) are low enough to clear the door way.
6. When you are approaching a blind corner slow down stop if necessary and sound the horn before proceeding.
7. Always check the brakes before entering a ramp or grade.
8. When ascending or descending a slope while carrying a load with the forks attachment the forks should always be pointing up the slope. Meaning travel up a slope forward and down in reverse. Avoid going across a slope. This will optimize the center of gravity and maximize the stability of the load. When carrying a load in the bucket keep bucket as low as possible but not so low as to spill the load. When carrying a load on the jib always use a spotter with a tag line.
9. Accelerate at an even pace and do not exceed the yard speed limit. (15km) be aware of ground conditions (wet, mud, ice and snow) to ensure you allow enough stopping distance.
10. If the load you are carrying obstructs your view travel in reverse so that you can clearly see the path that you are traveling.
11. When parking the loader, do not block emergency exits, access to safety equipment, walkways or roadways. Park on a level surface and set the bucket/forks on flat ground. Apply the parking brakes the turn off the loader.
12. If you must park on a slope, use chocks to block the wheels.
13. Always use 3 point contact when entering or exiting the loa
14. When using a man basket/personnel platform, the operator must:
  - i) Ensure that the working area is clear of objects and people.
  - ii) Ensure that basket is secured to loader.
  - iii) Flag off work area to ensure no one can walk under men working in basket.
  - iv) Ensure that the person in the basket is wearing a safety harness and it is tied off to the basket.
  - v) Remain at the controls at all times while a person is in the basket.
  - vi) Do not travel at all while a person is in the basket.

**Potential Hazards** – collision with buildings, other equipment or other workers. Slips/trips, and uneven ground. Loads may fall or become unbalanced.

**Safety precautions** – Be aware of your surroundings, pay attention to the ground conditions (ice, mud, water), use 3pt contact, ensure operator is trained in the use of the loader, use a spotter when operator does not have a clear line of vision, ensure proper maintenance is performed on the loader, ensure that pre-use inspections are being performed. Ensure that load is properly balanced and will not fall.



## Loader Pre-Operating Checklist

### Job Procedure

#### Part 4 (48)

Loaders are an important piece of equipment in our daily operations. They are also a source of many possible safety hazards. By completing the following pre-operation checklist the hazards will be minimized. Each employee who operates a loader should have completed the Milepost training prior to operating this equipment. Training reduces the risk of injury or death to you or your co-workers as well as prevents possible equipment or property damage.

If your inspection of the loader components reveals any type of deficiency, tag out the equipment and do not operate until the deficiencies have been repaired.

#### CHECKLIST

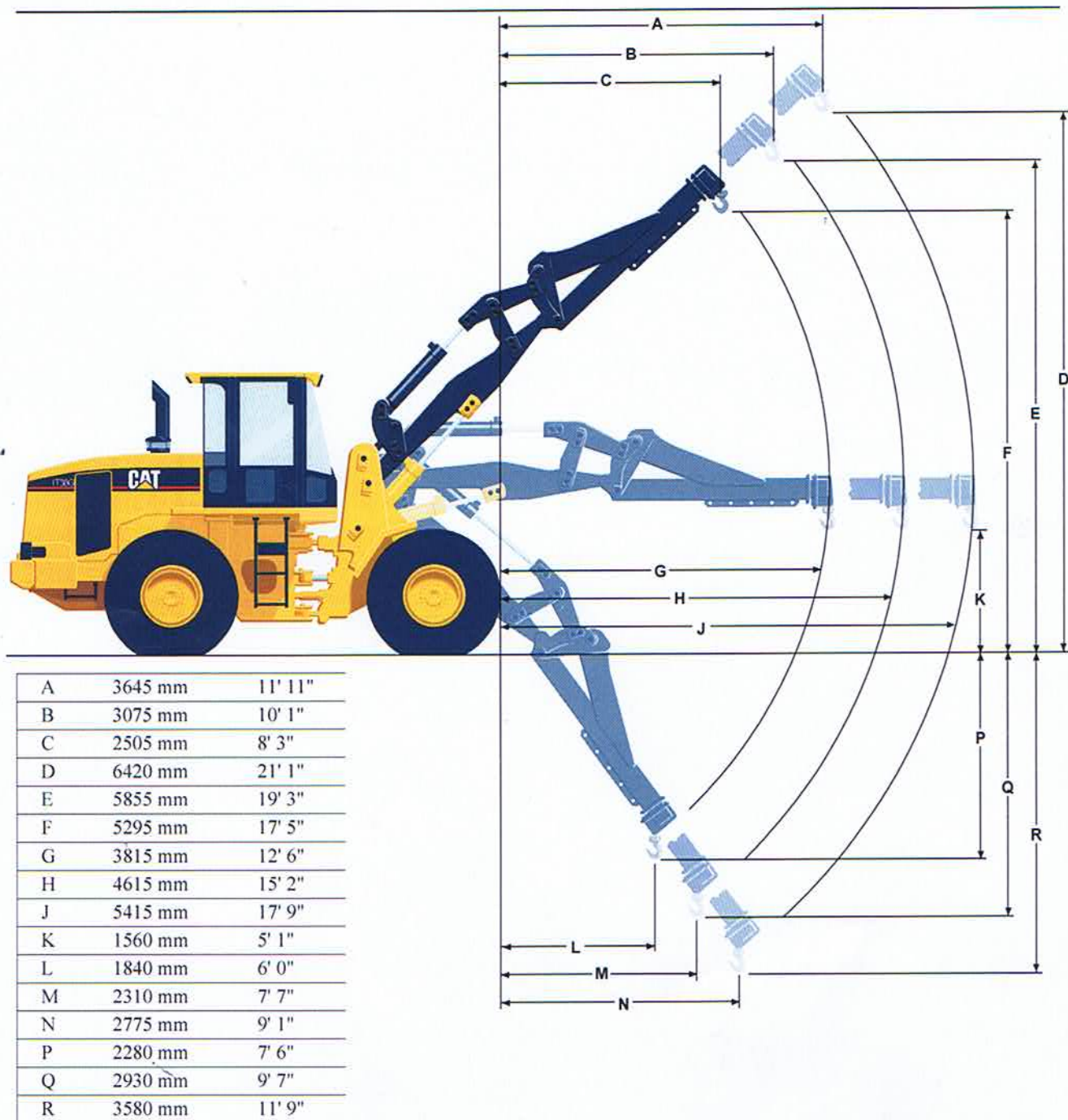
- Check the data plate to determine if the load capacity is sufficient for the load that is going to be lifted. (never exceed the maximum load capacity)
- Examine the required piece of equipment (jib, forks, or bucket) for distortions or cracks.
- Check to ensure that the quick connect is properly connected.
- Check the condition of all hydraulic hoses and connections, also check for any leaks.
- Check the level of hydraulic fluid and oil.
- Check air pressure in tires, also check tires for any cuts, gouges, or punctures.
- Inspect the driver's compartment – check the seat, steering wheel, control panel, check windows for any cracks or chips that might obstruct the operators view. Ensure that the floor of the operating compartment is clean and nothing can obstruct the pedals. (For example tools or garbage) Check that the horn and backup alarm are working and that the loader is equipped with a fire extinguisher.
- Check brakes in forward and reverse. This enables you to check the brakes before they are needed in a much more demanding circumstance. If the brakes are not functioning properly the loader should be tagged out and reported to the supervisor immediately. The loader should not be used until the brakes have been repaired and are functioning properly.
- Check the loader to ensure there is nothing unsecured or hanging from the equipment, for example chains, slings or tools.
- Try to keep your boots clean and dry. Wet or oily boots can create a hazard due to the potential to slip while getting on or off the loader or cause your foot to slip off the pedals causing you to lose control.

**INSPECTION FORM MUST BE COMPLETED DAILY OR BEFORE OPERATION OF LOADER**



## Dimensions

All dimensions are approximate.



| Handling arm position           | Retracted |           | Mid-position |           | Extended  |           |
|---------------------------------|-----------|-----------|--------------|-----------|-----------|-----------|
| Operating load 40° articulation | 2049 kg   | 4510 lb   | 1729 kg      | 3810 lb   | 1492 kg   | 3290 lb   |
| Static tipping load             |           |           |              |           |           |           |
| Straight                        | 4746 kg   | 10,460 lb | 4009 kg      | 8840 lb   | 3463 kg   | 7630 lb   |
| Full 40° turn                   | 4098 kg   | 9030 lb   | 3457 kg      | 7620 lb   | 2983 kg   | 6570 lb   |
| Operating weight                | 12 380 kg | 27,290 lb | 12 380 kg    | 27,290 lb | 12 380 kg | 27,290 lb |

Dimensions, static tipping load and operating weight are based on standard machine configuration with 20.5 R25, XTLA (L-2) tires, full fuel tank, coolant, lubricants, and operator.

NOTE: Machine stability and operating weight are affected by tire size, tire ballast and other attachments.





## Job Procedure

### Part 4 (49)

## MACHINE OPERATING WEIGHTS

|                            |            |               |
|----------------------------|------------|---------------|
| CAT IT38 - 04 – with jib   | 12,380kg.  | 27,290 lbs.   |
| CAT IT38 - 06 – with jib   | 12,380 kg. | 27,290 lbs.   |
| CAT IT28B – with jib       | 10,400 kg. | - 22,880 lbs. |
| Fiat Allis 545B – with jib | 9,450 kg.  | - 20,790 lbs. |
| Case 1845C with bucket     | 2,806 kg.  | - 6,185 lbs.  |
| Nissan Forklift            | 3,500 kg.  | - 7,700 lbs.  |
| Caterpillar Forklift - 01  |            |               |

## SAFE WORKING LOADS

|  |        |                        |
|--|--------|------------------------|
| CAT IT28B  | Forks  | - 6,200 lbs.           |
|  | Jib    | - 4,000 lbs.           |
| FIAT ALLIS 545B  | Forks  | - 5,000 lbs.**         |
|  | Jib    | - 3,400 lbs.**         |
| **estimated (compared with similar size current machine) |        |                        |
| CASE 1845C   | Bucket | - 1,750 lbs.           |
|  | Forks  | - 1,500 lbs. Estimated |
| NISSAN FORKLIFT  |        | - 4,000 lbs.           |



## Loading Front End Loaders onto Trailer

### Part 4 (50)

Front end loaders need to be operated with caution, only trained personnel will be allowed to operate them. All safe operating procedures must be followed without exception.

- Ensure that only personnel involved in the loading procedure are present. All others must clear the area.
- When loading a front end loader, always load it on level and stable ground.
- Be sure that loading area is clear of any overhead obstructions such as power lines as well as any other possible loading obstructions in the loading area.
- Make sure that the truck and trailer cannot move by setting the brakes and blocking the wheels.
- Be sure to stay clear of the rear of the trailer until the ramps are down as the air ramps can drop rapidly.
- Ensure the ramps are secure and clear of mud, grease and debris.
- Be sure all tools, chains, parts, and any other loose items are removed from the cab of the loader before loading.
- PPE must be worn during the loading process. (Hard hat, steel toed boots, safety vest, safety glasses)
- While loading, seat belt must be worn and the door must be closed.
- Ensure that the bucket or attachment is as low as possible when loading. This will keep the center of gravity low and give more stability to the loader.
- When using a spotter be sure that the spotter stands either to the front or rear of the loader NEVER to the side, in case of a roll over.
- Load equipment at a slow steady speed. Avoid quick starts and stops which can cause the loader to rock.
- Once loaded, lower the bucket/attachment to the deck of the trailer apply parking brake and put locking bar in place.
- Secure loader to the trailer using chains and ratchet boomers. Be sure to inspect this equipment before using.
- Double check that the chains are tight and secure.
- Ensure that no loose material or equipment is left on the deck of the trailer.
- **Always load equipment with the bucket/attachment as low as possible. If the attachment is raised the center of gravity is raised and moved forward. This will reduce the loaders stability and increase the chance of overturning.**

**Safety Hazards:** risk of the loader overturning off of the trailer deck, operator could fall out of the cab if the door is not closed, pinch points, crush areas, slip/trip hazards.

**Safety Precautions:** Ensure excess mud or snow and ice are removed from the trailer deck, inspect rigging prior to use, ensure that operator has necessary training to load the loader



# Skid Steer Pre-Operating Checklist

## Job Procedure Part 4 (51)

The skid steer is a very important piece of equipment in our daily operations. They are also a source of many possible safety hazards. By completing the following pre-operation check list the hazards will be minimized. Each employee who operates a skid steer should have completed the Milepost training prior to operating this equipment. Training reduces the risk of injury or death to you or your co-workers as well as prevents possible equipment or property damage.

If your inspection of the skid steer components reveals any type of deficiency, tag out the equipment and do not operate until the deficiencies have been repaired.

### Checklist

- 1 – Check the data plate to determine if the load capacity is sufficient for the load that is going to be lifted. (NEVER EXCEED THE MAXIMUM LOAD CAPACITY)
- 2 – Examine the required piece of equipment (forks or bucket) for distortions or cracks.
- 3 – Check to ensure that the bucket/forks are properly connected.
- 4 – Check the condition of all hydraulic hoses and connections also check for leaks.
- 5 – Check the level of hydraulic fluid and oil.
- 6 – Check air pressure in tires also check tires for cuts, gouges, and punctures.
- 7 – Inspect the drivers compartment – check the seat, steering and bucket controls, ensure that the floor of the operating compartment is clean and nothing can obstruct the pedals ( eg: tools, garbage) . Also check the horn and back up alarm are working.
- 8 – Check the brakes in forward and reverse. This enables you to check the brakes before they are needed in a more demanding circumstance. If the brakes are not functioning properly, the skid steer should be tagged out and the problem reported to your supervisor immediately. The skid steer should not be used until the brakes have been repaired and are functioning properly.
- 9 – Check the skid steer to ensure there is nothing unsecured or hanging from the equipment (eg: chains or slings or tools).
- 10 – Try to keep boots free of excess mud as much as possible, wet or oily boots can create a hazard due to the potential to slip while getting in or out of the skid steer.

**INSPECTION FORM MUST BE FILLED OUT DAILY OR BEFORE OPERATION OF BOBCAT**



## Skid Steer Operating Procedures

### Job Procedure

#### Part 4 (52)

- Only workers qualified in the operation of the bobcat/skid steer are permitted in its operation.
- Read and follow all directions in the operator's manual. Pay attention to safety instructions in the manual and to warning labels you see on the equipment.
- Concentrate on working safely, do not take unnecessary risks.
- DO NOT operate machinery if you are tired or have taken medications (drugs or alcohol) that may cause drowsiness.
- Perform pre-start inspection, refer to Job Procedure Part 4(51) Bobcat Pre-Operating Checklist
- Always fasten your seat belt, and lower the safety/restraining bar (if so equipped) when you are in the operator's seat so you stay securely in the cab, protected from being crushed.
- Make sure controls are in neutral and the parking brake is set.
- Start the engine and test all controls. Check the horn and ensure that the backup alarm is working.
- Never try to start a bobcat/skid steer from outside the cab.
- Never operate the machine if any safety device is missing or damaged.
- Never climb out of the machine with the engine running.
- Check the work area before you start. Note all potential obstacles-tree branches, pipes or any object that could come through the cab.
- Maintain a clear line of sight. Keep the windshield and back window clean, if the loader has them.
- Stay alert and constantly scan the area to be travelled. Before proceeding in any direction, always check to see that the area of travel is clear. Look around before making any sharp turns. If you are not 100% sure that the area in your direction of travel is clear, STOP, exit the bobcat and check area or have a spotter check. Know where your co-workers are. Be aware of your surroundings at all times.
- Never enter or exit under a raised attachment because it could fall on you.
- Never work under a raised attachment, unless the lift arms are secured in the "up" position using approved lift arm supports. (see manufacturers manual)
- Never lift an attachment above a person. Loads can shift or fall out, or the attachment can drop unexpectedly, crushing anyone under it.
- Evenly distribute the load on the attachment so the bobcat/skid steer doesn't tip over. Don't over load the attachment. Check operators manual/capacity label/ or data plate for the maximum load limit. Exceeding that limit may cause the loader to become unstable and roll over.
- When it is necessary to secure the load, lower the lift arms, shut off the engine, climb out, chain the load in place, climb back in the cab, start the bobcat/skid steer and proceed with the job.
- When traveling always keep the bucket/forks in a low position, just high enough to safety clear the ground. When a load is carried too high, skid steer loaders are more likely to tip. This lowers the center of gravity and provides greater stability for the load. It is especially important to carry the load as low as possible when turning, carrying a heavy load, travelling on a slope, or operating on rough surfaces.
- Operate at a speed that is appropriate for conditions so you don't lose control of the loader.
- Operate the controls smoothly to prevent jerking or bucking. Cont.....



## Skid Steer Operating Procedure

### Job Procedure

#### Part 4 (52)

- Operate on level, stable surfaces. Load, unload and turn on solid, level ground.
- Drive up and down hills, not across them. Drive slowly on slopes. Do not make sharp turns on hills or the loader may roll over. Stay away from steep hills entirely. Be aware of ground conditions (wet, mud, snow, ice) to ensure that you allow enough stopping distance.
- Keep the heavy end of the loader pointed uphill. When fully loaded, skid steer loaders should be driven with the load uphill.
- Avoid holes, large bumps, soft spots and weak floors. All can make the loader unstable. If you must cross railroad tracks, ditches, curbs or similar rough surfaces, cross at an angle and drive slowly.
- Do not allow riders. The cab is built for one person and attachments are not for carrying people.
- When lifting bucket/forks be aware of anything low overhead, ensure that you have enough clearance.
- Always check the brakes before entering a ramp or grade.
- Never lift loads so high or roll attachments back so far that material dumps into the cab, landing on you.
- If the load obstructs your view, travel in reverse if possible or use a spotter.
- When parking the bobcat do not block emergency exits, access to safety equipment, walkways or roadways. Park on a level surface, set bucket/forks flat on the ground. Set parking brake, turn off power.
- If you must park on a slope, block wheels with chocks.
- Whenever possible, perform maintenance work with the engine off, key removed, park brake set, wheels blocked and attachments lowered or supported by approved lift arm support. (refer to Job Procedure Part 4(17) Lockout/Tag out)

#### **Safe Shut Down and Exit**

- Park on level surface
- Lower the lift arms and attachments to the ground
- Place controls in neutral and set park brake
- Turn engine off
- Cycle the controls to relieve hydraulic pressure
- Remove ignition key
- Exit according to manufacturer's instructions using the steps and grab handles
- Block the wheels if there is a chance the loader may roll

Potential Safety Hazards: collision with other objects like buildings, tree branches, equipment, workers in the area, slip /trip hazards, crushed by, pinch points, rough uneven ground, rolling or tipping loader, high pressure hydraulic fluid injuries

Safety Precautions: Ensure operator is trained/qualified, follow safe work practices and job procedures, wear PPE, use seat belt, safety bar, focus on task, and be aware of surroundings,



Job Procedure  
Part 4 (53)

## CONFINED SPACE ENTRY

- All workers to be trained in confined space awareness by a competent person.
- Client must provide a supervisor who is
  1. Thoroughly competent and familiar with the hazards that may be encountered.
  2. Accident prevention requirements
  3. First aid and rescue measures/any inspections or tests
  4. Selecting safety equipment and PPE
- Before entry supervisor must inform all workers of the hazards and all precautionary measures and rescue methods.
- Have a plan for emergency evacuation.
- Client must ensure that a confined space is ventilated or purged before entry.
- Entry permit must be filled out prior to anyone entering confined space properly completed and signed by competent person.
- Pre entry atmospheric testing and continuous monitoring to be done by competent worker.
- Client must ensure that a confined space is inert if it is not reasonably practicable to eliminate an explosive or flammable atmosphere.

If confined space is inert, client must ensure that

- a) every worker entering the confined space is equipped with supplied air respiratory equipment.
  - b) all ignition sources are controlled.
  - c) the atmosphere within the confined space stays inert while the workers are inside.
- Client must ensure that a competent worker trained in confined space rescue is present outside a confined space or near an entrance.

If:

- a) the oxygen content of the atmosphere inside the confined space is less than 19.5 percent by volume.
- b) the oxygen content of the atmosphere inside the confined space is greater than 23.0 percent by volume.
- c) the concentration of a substance listed in Schedule 1. Table 2 inside the confined space is greater than 50% of its occupational exposure limit or
- d) another hazard is identified by the hazard assessment and the hazard cannot be eliminated or effectively controlled.

Emergency 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% by volume or exceeds 23.0% by volume.
- c) or there is a significant change in the amount of hazardous substances inside the confined space.

Client must ensure that a worker does not enter a confined space unless adequate precautions are in place to protect worker from drowning, engulfment or entrapment. Client must ensure that any hazardous energy in a restricted space is locked or tagged out. If atmospheric testing indicates that 20% of the LEL of a flammable or explosive substance is present in the atmosphere, workers must not enter or work in the space. Atmospheric testing must be assessed by a competent individual and monitored for changes in the conditions prior to any workers being exposed.

Client will also provide any additional PPE required.

Cont.....



Job Procedure  
Part 4 (53)

## CONFINED SPACE ENTRY

### Safe Procedure for Entering a Confined Space

- **Supervisor's** approval and presence is to be obtained prior to entry
- Equipment to be assembled and checked by supervisor and individual operator
- Supervisor to brief personnel on the operation procedure and each person's responsibility.
- Safety line to be tended by experienced and trained person.
- Training to include emergency procedure
- Put on harness, check buckles, lanyards and safety lines. Tether safety line by making two wraps around a fixed object outside space.
- Safety line is to be tended and kept snug at all times while person is in the confined space.
- All tools will be lowered and removed using a basket and hand line.
- Personal Protective Equipment will be worn at all times and clothing should fit snugly
- 





A restricted space is an enclosed or partially enclosed space in which work is performed, not designed or intended for continuous human occupancy, that has restricted, limited or impeded means of entry or exit because of its construction.

Restricted spaces are addressed in Part 5 of the Alberta OH&S Act, “Confined Spaces”, which details the following requirements.

- A hazard assessment must be performed by a competent worker:
  1. To identify and assess the hazards the workers are likely to encounter
  2. Specify the type and frequency of inspections and tests necessary to determine the likelihood of worker exposure
  3. Perform the tests and inspections specified
  4. Specify the safety and PPE required to perform the work
  5. Identify the PPE and Emergency equipment to be used in the event of an accident or other emergency
- Unauthorized persons must be prevented from entering the space.
- Workers must be protected from hazards created by traffic in the area of the restricted space.
- Workers cannot remain in the space unless an effective rescue can be executed.
- A competent worker must be in communication with the workers inside the space.
- A safe means of entry and exit must be available to all workers in the restricted space.

A restricted space should not be confused with a “restricted area”, an area of a worksite where the airborne concentration of a dangerous dust such as coal dust or silica exceeds or may exceed the occupational exposure limit. Restricted areas are dealt with in Section 29 of the OH&S Act, under Part 4: Chemical Hazards, Biological Hazards, and Harmful Substances.





## WORKING AT HEIGHTS OVER 1.2 METRES

### Job Procedure Part 4 (55)

Milepost Manufacturing Ltd. will ensure that a worker who is working at heights over 1.2 meters, is trained and certified in Fall Arrest Protection and Elevated Work Platform operation. Workers will be protected from falling from a temporary or permanent work area if a worker may fall:

- (a.) A vertical distance of 3 meters or more,
- (b.) A vertical distance of less than 3 meters if there is an unusual possibility of injury, or
- (c.) Into or onto a hazardous substance or object, or through an opening in a work surface.

Milepost will ensure that a worker at a permanent work area is protected from falling by a guard rail if the worker may fall a vertical distance of more than 1.2 meters and less than 3 meters. If a guardrail is not reasonably practicable, a travel restraint system or personal fall arrest system will be used.

Refer to OH&S Code Part 9 "Fall Protection"

- If a client follows the US, OSHA standard of fall protection at 6 ft. (1.8 m) Milepost will agree to adhere to the 6 ft. (1.8 m) standard in accordance with the client's requirements.
- The platform of each scaffold must: (a) be a minimum nominal width of 50 cm (20 in), except that a nominal 30 cm (12 in) wide work platform may be used with ladder jacks, pump jack or similar systems, (b) not leave more than one opening in the work platform, which must be no greater than 25 cm (10 in) in width, and (c) if not level, be designed to ensure adequate footing for workers using the platform
- Workers must complete a visual inspection of their fall protection equipment before each use. The inspection shall include: (a) Hardware (inspect hardware, including snap hooks, D-rings, and buckles for damage, and check for sharp edges, corrosion, burrs, cracks, and worn parts), (b) Webbing (check for tears, abrasions, mold, burns, heavy soiling, or discoloration, and chemical or heat damage), (c) Cable (inspect for cuts, kinks, broken wires and fibers, corrosion, chemical contact, and severely abraded areas), and (d) Labels (affixed and fully legible).
- Fall protection equipment that is found to be defective must be taken out of service and not used until it is replaced or repaired. An out-of-service tag should be affixed to the equipment indicating it is defective.
- Workers who may be required to use fall protection will be provided training in the use of fall protection equipment, the inspection of the equipment, and the identification of potential falls in the workplace.

The following personal protective equipment is required before starting this procedure; hard hat, safety harness, lifeline or lanyard, C.S.A. steel toe work boots, safety glasses, gloves and hearing protection if working in a noisy area.

- There is to be two workers located in the work area when working 1.2 metres or higher using a safety harness and lanyard in the event of an accident.
- Under **no** circumstances is a worker to perform or engage in any work, unless all personal protective equipment is available and worn by the workers.
- This procedure further applies to subcontractors, supplies and any other company or person engaging in work on company premises.
- Written rescue procedures must be established and in place before any worker uses a fall arrest system at a work site. The plan must include method(s) to be used to rescue a suspended worker from a fall arrest system following a fall. If external emergency services are to be used, ensure they are capable of performing that method of rescue and that they are readily available to assist.

Cont.....



## **WORKING AT HEIGHTS OVER 1.2 METRES**

### **Emergency Rescue Plan**

The best strategy for protecting workers from falls is to eliminate the hazards that cause them. When you can't eliminate the hazards, you must protect workers with an appropriate fall-protection system or method. If a worker is suspended in a personal fall-arrest system, you must provide for a prompt rescue.

- Identify fall hazards prior to working at heights.
- The following resources will be on site to initiate a successful emergency rescue of a worker that is suspended in their fall arrest system: Crane w operator, trucks for transport, qualified 1<sup>st</sup> aid personnel, cell phones, man basket, and extension ladder.
- Immediately approach the individual and observe/ask if he/she has been injured.
- If they are injured or do not respond: IMMEDIATELY initiate either the site emergency response or 911.
- Keep all non-essential persons clear of the area.
- Shut down if safe to do so.
- Assess the hazards.
- It is essential that the worker is rescued within 15 – 20 min.
- Maintain contact with fallen worker at all times until worker is safely on the ground.
- Use the available lift, maneuver the platform under the suspended worker.
- Assist the worker caught in his/her harness to maneuver to the lift platform.
- Insure the injured worker is secure before disengaging them from their suspended fall arrest system.
- Initiate 1<sup>st</sup> aid procedures.
- Lower the lift platform to ground level.
- Continue 1<sup>st</sup> aid until medical aid arrives.
- Flag off area until incident investigation can be conducted.
- Take action to avoid further incidents.
- Notify authorities in accordance with company policy and applicable regulations



Job Procedures  
Part 4 (56)

## PAINT SHOP

### Mixing Paint:

When mixing paint, always ensure you are wearing all appropriate PPE and that you have a clutter free work space to work in.

- Open paint can.
- Transfer some paint out of the new can into another can to allow room for mixing.
- Add approximately one (1) cup paint thinner to new can of paint.
- Stir thinner into paint until mixed.

Cover all containers when finished.

### Loading Paint Sprayer:

- Remove reservoir from spray gun
- Carefully fill reservoir three quarters (3/4) full with premixed paint.
- Replace lid on paint can.
- Place loaded sprayer in cradle to avoid damage.

### Painting Steel:

- Ensure objects to be painted are on a safe, stable area, and that they cannot fall.
- Connect paint sprayer to compressed air supply.
- Point sprayer at object to be painted.
- Using slow, even, constant movements, coat exposed side of object.
- Allow exposed side to dry, turn and repeat if necessary.
- When finished, empty and clean sprayer.

### Cleaning Paint Sprayer:

- Empty excess paint back into the paint can.
- Wipe all accessible paint off reservoir and sprayer with a rag.
- Pour solvent into reservoir and spray through for a short 30 seconds burst to clean interior of sprayer. Spray solvent into a safe container.
- Empty remaining solvent back into container.
- Using a wire brush clean all nozzles and hoses.
- Oil all moving parts.
- Store sprayer in the proper place when not in use.
- Return solvents and paints to safe storage area when not in use.

Safety Hazards: fumes, product in eyes, slip, trip hazards, items to be painted not secured may fall over, pinch points

Safety Precautions: read the WHIMIS data sheet on products, wear PPE required as per WHIMIS requirements, ensure that items to be painted are properly secured, keep area tidy, put away tools and cords, keep sprayer clean, dispose of rags in covered container, store paint and solvents in fireproof cabinet.



## Job Procedure

# Using a Sandblaster

### Part 4 (57)

- Wear PPE – sandblasting helmet, leather gloves, coveralls, steel toed boots and hearing protection.
- Set up sandblaster and compressor in a designated area, flag off area or use a spotter to ensure that no one enters the area during sand blasting process.
- Hook up air hose, stretch out blasting hose so it will reach as much of the item to be blasted as possible. Be sure to inspect all hoses while hooking up.
- Check fluid levels in compressor before starting.
- Fill sand hopper.
- Ensure all PPE is on and area is clear before starting sand blaster.
- Hold blasting hose firmly, start equipment and open hopper valve.
- Always point the hose away from yourself.
- While blasting hold the nozzle 6 – 8 inches away from surface being blasted.
- When finished shut hopper valve then shut down the compressor.
- Inspect blasted surface to ensure nothing was missed.
- Disconnect and roll up hoses.

**Safety Hazards:** high pressure sand (can cause severe injury to skin) dust, loud noise, poor visibility while blasting.

**Safety Precautions:** Wear required PPE at all times including blasting helmet and hearing protection, keep other workers out of the area where you are sand blasting,



## Installation of Screw Piles

- Ensure client has provided certificate of Ground Disturbance Clearance (utility Location)
- Attach drive head to hoe, ensuring that there are no pinch points in the hydraulic hoses
- Position screw piles to enable drive head to slide into position, ground person must direct the operator to insert the drive head into screw pile, staying clear as the operator rotates the drive head into the screw pile.
- Ground person must insert the drive pins, ensuring all locks are on and tag line is attached to base of pile.
- Make sure area is clear of all unnecessary personnel.
- Ensure there are no overhead obstructions before raising the pile.
- Direct operator to pin location or pilot hole, use tag line if necessary to adjust pile into place. Have the operator slowly raise the pile keeping the pile plumb.
- Direct the operator to insert the pile, ensuring the pile stays plumb.
- The operator must continually monitor the drive head pressure as he inserts the pile to the desired elevation.
- The operator must ensure that no torque pressure is on the drive head as the ground person removes the lock pins from the drive head.
- Operator will then remove the drive head.
- If working with pilot holes, ensure that the dirt is replaced around the base of the pile, no pilot holes are to be left open overnight, all pilot holes shall be staked off, identifying the hazard.
- Check final elevations of the piles and cut as necessary.

Safety Hazards: underground utilities, overhead obstructions, pinch points, rotating parts, crush areas, uneven ground, open areas, operating heavy equipment, other traffic in the area, loud noise, use of grinder to cut piles,

Safety Precautions: Wear PPE, ensure proper training for operator of equipment and ground person, use tag lines, communication between operator and ground person essential, hearing protection, face shield when using grinder,



Job Procedure  
Part 4 (59)

## Boot Maker Machine

Turn on heat to 700 degrees

Turn air pressure on at air source with valves

Build pressure up to 60 psi by turning switch to the right on floor on for a few minutes.

Insert liner piece in tray and raise by gently pushing the foot pedal to heat for approximately 4 minutes.

Heat liner until liner is smooth (no wrinkles)

Lower liner piece with foot pedal. Again, just press the pedal gently.

Slowly release handle to your left to suck air out and form liner onto the boot mold.

Smaller size boots 6" and under, you must go slower suctioning the liner onto the mold so not to form ears at the base of the boot.

Take air line and cool off liner piece by blowing on it.

When cool push pedal to raise liner piece and release handle to your right to blow air under and will release piece of liner, repeat until piece is loose off form.

Pull out liner and start procedure over

Check air gauge to ensure pressure is up or the pedal to move the rack up or down will not work properly.

When liner piece is cooling you can trim ends all around

Shut off air at source.

Be careful when raising and lowering tray, watch arms and fingers

Shut down turn off heat to off.

**Potential Hazards:** burns, pinch points, crush areas, pressurized air hose, noise, cuts, repetitive movements

**Safety Precautions:** wear all PPE, gloves, hearing protection, focus on task, ensure training is given to worker prior to use, always cut away from yourself, use Kevlar gloves, take breaks, stretch



## **Straightening and Cutting Machine**

### *Job Procedure*

#### *Part 4 (60)*

#### **Loading Wire Reels onto Spin Table**

- Wire rolls weigh over 3000 lbs. use caution when handling
- Put forks together in center of forklift
- Pick up roll of wire, tilting forks back to prevent roll from sliding off forks when moving.
- Place roll of wire in open area on floor.
- Spread forks back out.
- Check for correct orientation of roll. The end of the wire must be at the top, outside of the roll.
- Insert cage in appropriate direction in roll.
- Use 2 slings on top of cage and double wrapped around forks to prevent slipping.
- Slowly raise forks, tipping the load cage over, away from forklift. (DO NOT tip loaded cages towards forklift as this may cause contact with forklift, resulting in damage or injury) Do not let cage slam down.
- Double check slings for proper positioning.
- Pick up roll of wire so it is off of ground.
- Transport roll to spin table before lifting higher, this will prevent tipping of forklift.
- Once beside spin table, lift loaded cage high enough to clear top post of spin table, watch overhead as well.
- Ease forward over top post and slowly lower loaded cage over post.
- Once loaded cage is on spin table, remove slings and move forklift away.

#### **Preparing Roll for Insertion into Machine**

- Locate strap closest to the end of the roll that will be fed into the machine'
- Cut strap with aviation snips to free up end of wire, keep away from band and wire when cutting, both are under tension and will spring when released.
- Use bending tool to straighten out loose end of wire as much as possible before cutting any other bands.
- Hang on to the straightened end of wire firmly and cut the next band keeping clear of recoil and band.
- Use bending tool to straighten wire further, cut 3<sup>rd</sup> band.
- Do not cut the last band until the machine is maintained, inspected and powered up.
- See "Machine Set Up" for next steps.



## Straightening and Cutting Machine

*Job Procedure*

*Part 4 (61)*

### ***Setting Machine for Bar Length***

- Using control panel on the right side of the machine, turn switch to open guide and leave open.
- Loosen 2 Allen screws on the trigger mechanism.
- Insert rods through trigger mechanism until approximate wire length is achieved, screw numerous rods together if required.
- Re-tighten the 2 Allen screws.
- Close bar guide.
- Turnkey on control panel to automatic.
- Ensure all guards are closed.
- Turn machine on and cut 3 bars.
- Stop machine.
- Measure 3<sup>rd</sup> bar for length, make adjustments to rods if necessary to achieve exact length required. Also, check wire for straightness.
- Once correct wire length is achieved and wire is straight after cutting, set counter to desired number of bars to be cut. 450 bars will fit in catch tray. Do not allow more or removing wire will be difficult.
- Machine will shut off automatically at 450 pieces.
- The machine will NOT shut off automatically when wire coil runs out, so be prepared to shut off the machine BEFORE the end of the roll.
- Counter will clear if power is turned off, so write down count on paper to keep track if several thousand bars are required.
- Open all guards to avoid hooking wire on machine when removing with forklift.
- Use 2 slings and forklift to remove cut wire.





*Job Procedure*  
*Part 4 (62)*

## **Straightening and Cutting Machine**

### ***Cutting Short Pieces***

- If you need to cut many short pieces IE. 12 “, the bar length adjust will not work well unless the machine is slowed down considerably.
- Use the feed speed and timer instead of the rods to set length of wire pieces. This is done by trial and error, until speed adjustment gives you the desired length. The machine will cut pieces extremely fast, so this way avoids a lot of wear and tear on the machine and trigger mechanism. Typically, the machine will be cutting well over 100 pieces per minute.
- Move kickoff block on the trigger mechanism forward when using “AUTO” for small pieces, this prevents the latch from hooking block when engaged.
- There is an engraving on the trigger mechanism showing “AUTO/TRIP”

### **Notes and Operating Parameters**

- The spring on the trigger mechanism should only be compressed enough to activate the mechanism, DO NOT OVER COMPRESS.
- wrenches belong with the machine:
  - Arbor Wrench – use to tighten and loosen arbor set bolts.
  - Lug Wrench – use to tighten or remove drive rolls, DO NOT OVER TIGHTEN drive rolls.
- Roller feed adjustment switch (located beside Emergency Stop Button on the right control panel) should be set at around 60%.
- Arbor speed adjustment switch (located to the left of the white power button on right control panel) should be set at 75%.
- Wire speed display (located on the main electrical box) should be set at 3505 + or - .
- Drive pressure display (also located on the main electrical box) should be around 256.
- Entry feed and exit feed pressure gages (located on front of machine, below control panels) should be around 45 P.S.I. if wire is feeding properly.
- Parameter settings may need to be adjusted slightly during use. These settings should be a close guide line.



## **Straightening and Cutting Machine**

### **Maintenance and Lubrication/Pre Use/Post Use**

*Job Procedure*

*Part 4 (63)*

- Do not use WD-40 to lubricate any parts (will accumulate dirt)
- Use white grease for arbor only (FUCHS CHEMPLEX 940 SYNTHETIC)
- Use red grease for all other parts only (NLG1 LITHIUM BASED)
- Use tool oil on trip mechanism only.
- Do not over grease machine.
- Wipe off excess grease with a clean rag.
- Clean grease zerts before and after greasing to remove dirt and excess grease.
- Grease prior to start or at the beginning of work shift.
- Check for loose bolts, belts, fittings, or guards before start up.
- Continue to watch for parts vibrating loose during operation.
- Apply tool oil several times during shift to trip mechanism and hinge on the end of the machine.
- Clean dust and metal fragments from the machine at the end of shift or more frequently if required.
- Ensure dies and roller are free from buildup during and after use.
- Do all maintenance prior to powering up machine.
- Keep electrical components free of dust, use air to blow areas clean if required.
- Arbor set bolts may vibrate loose during operation, tighten well before using and excessive noise during operation may indicate they are loose, check periodically when using machine.  
to be adjusted slightly during use. These settings should be a close guide line.



## Working With Concrete Sidewalk Jig

### *Job Procedure*

#### *Part 4 (64)*

Ensure that you have been trained in the use of the sidewalk jig before you use it.

- Ensure that the jig is set up on a flat and level surface.
- Set jig sides to required length and height.
- Remove plugs and use plug holes to bolt sides in place for narrow or short sidewalks, and ensure plugs are in place for wide or long sidewalks.
- Ensure that the jig is level using the levelling screws to adjust. When level insert table lock.
- Apply Sika Flex caulking around perimeter of the frame. Oil the jig and insert the mesh into the frame.
- Then pour concrete into the jig.
- Be sure to follow the safe work practice for “Working Safely with Concrete” and the safe job procedure for “Pouring Concrete”.

Once the concrete has set, use the following steps to safely remove sidewalk slab from the jig.

- Use 2 or 3 – 3” ratchet straps, depending on the size of the sidewalk. Fasten 1 strap approximately 2’ to 3’ from each end of the sidewalk. If a third strap is required, fasten it in the center of the sidewalk. Place rubber pads under the straps on the edge of the jig to protect the straps from the metal.
- **The ratchet straps are required to hold up to 2500 lbs. so thoroughly inspect the straps before the unloading process begins.**
- Loosen the bolts on the jig walls to allow the sidewalk to release when flipped.
- Hook one end of the chain to the bobcat or loader positioned next to the side of the jig. Run a chain over the sidewalk and connect the other end to the jig bed to control the rollover. Ensure that the chain is centered along the length of the sidewalk.
- Have the bobcat operator back up slowly and lift the forks to the same level as the jig to take the slack out of the chain. (Note: Maintain a tight chain to control flipping the form).
- Be sure to use a designated spotter when working with the bobcat/loader.
- Remove leveling screw pins and table lock from the jig table. Place a block under the opposite side of the form table to ensure to prevent table from spinning.
- Slowly drive the bobcat/loader forward, and the jig bed will start to turn over. Continue until jig bed has turned 180 degrees and the sidewalk is on the bottom.
- Unhook the chain from the bobcat/loader and the jig bed and bring the forks of the bobcat/loader under the jig bed and get the bobcat/loader as close as possible without contacting the jig. (put 2x4’s on top of forks) Then lift the forks until they are just touching the sidewalk.
- Undo the ratchet straps and slowly release the sidewalk slab onto the forks.
- Back away from the jig and the bobcat operator will stack the sidewalk slab in a designated area.

Hazards: working with heavy weight, pinch points, crush areas, moving parts, working around heavy equipment, keep body out of the line of fire.

Safety Precautions: wear all required PPE, ensure proper training is given, and follow all safe work practices and safe job procedures.



## **DRILL PRESS**

### **Job Procedures Part 4 (65)**

Workers using the drill press must be trained in its operation and use before operating the machine. Workers will review the manufacturer's manual prior to using the drill press to ensure proper use and maintenance of the machine.

- Wear appropriate safety glasses.
- Ensure that the drill press has a start/stop button within easy reach of the operator.
- Use a vacuum, brush or rake to remove cuttings.
- Remove burrs and chips from a drilled hole. When making deep holes, clean out the hole frequently.
- Use a clamp or drill vise to prevent work from spinning.
- Make sure the drill bit or cutting tool is locked securely in the chuck. Remove the chuck key before starting the drill press.
- Lubricate drill bit when drilling metal.
- Reduce the drilling pressure when the drill begins to break through the workpiece. This action prevents drill from pulling into the work and breaking.
- Keep drill bits clean and sharp. Dull drills are a common cause of breakage.
- Keep floor around the drill press free of oil and grease.
- Keep the working surface clean of scraps, tools and materials.
- Keep guards in place and in good working order.
- Shut off power before removing the drill bit.

### **What are some things you should avoid doing?**

- Do not wear any loose clothing or ties. Roll sleeves above the elbow to prevent them from being caught in revolving parts. Confine long hair.
- Do not wear gloves, rings, watches, or bracelets while working with a drill press.
- Do not set speeds, adjust, or measure work until machine is completely stopped.
- Do not force the drill with extra pressure.
- Do not leave chuck key in drill chuck. Make adjustments and remove key immediately.
- Do not hold work by hand when drilling holes; secure the work with clamps or vices.
- Do not place hands under the stock being drilled.
- Do not stop rotation of chuck and spindle with your hand.
- Do not remove a broken drill with a centre punch and hammer.
- Do not leave the drill press running unattended.



## MAGNETIC DRILL

### Job Procedures

#### Part 4 (66)

Workers using the magnetic drill must be trained in its use and operation prior to performing any operation of the Magnetic drill. The manufacturer's manual will be reviewed by the worker prior to performing work, to ensure proper use and maintenance of the machine and to be aware of hazards involved in the use of the machine.

- PPE must include steel toed work boots, hard hat, long sleeved coveralls and gloves. Always wear eye protection while using cutting tools. Safety glasses and face shields must be worn.

### INSTALLING CUTTER IN ARBOR

1. Disconnect from power source and remove T-Handle wrench from holder at top of drill.
2. Lay drill on its side with feed handles up or be sure Arbor clears table if unit is in normal operating position.
3. Turn Feed Handles until cutter mounting set screws are exposed and completely remove the set screws.
4. Insert proper pilot in shank end of Houghen Cutter.
5. Insert Houghen Cutter until flat on cutter shank is aligned with set screw holes and is exactly perpendicular to axis of set screw holes.
6. Insert set screws and tighten. Check to be certain that cutter is secure.

### OPERATING INSTRUCTIONS

1. Make sure workpiece and bottom of magnet are free of chips, oil, etc.
2. Verify Safety Switch works properly (See Safety Switch Indicator Light Section)
3. Position drill by sliding it and gently feeding Arbor so that pilot point is touching center of hole to be drilled.
4. Secure unit to workpiece with safety chain.
5. Turn magnet "ON" by pressing the magnet ON switch.
6. Turn Feed Handle, raising the cutter until the pilot is above the work surface.
7. Fill coolant reservoir or fill attached coolant bottle if applicable.
8. Make certain that cutter is clear of workpiece and turn motor "ON" by pressing the motor START switch.
9. Feed Houghen Cutter slowly into workpiece. Only after cutting path is established to a depth of about 1/16" can full force be applied to feed handles.
10. Ease up on feed pressure as cutter starts breaking through.
11. At conclusion of cut, turn motor "OFF" by pressing motor STOP switch. Turn Feed Handles to raise Arbor thereby ejecting the slug, if it hasn't already fallen free.
12. Turn magnet "OFF" by pressing the magnet OFF switch.
13. **Disconnect from power source.**
14. If necessary, remove chips from cutter and magnet, preferably wearing leather work gloves and/or with pliers. Disconnect safety chain and you are ready to move unit to new drilling position.

Cont.....



## MAGNETIC DRILL

### Job Procedures

#### Part 4 (66)

### MAINTENANCE

In order to minimize wear on moving parts and to insure smoother operation and longer life for your magnetic drill, the following maintenance should be done periodically, based on use.

1. Regularly tighten all fasteners and replace all worn parts.
2. Check motor brushes and replace if worn.
3. Check power cord and cord from panel to motor and, if cracked or frayed, return to an authorized repair center for replacement.
4. Apply grease to the slide dovetails, brass gibs, and the feed gear rack.
5. Remove arbor and pack the bearing in the front support bracket with grease.
6. The safety switch plunger should be cleaned and lubricated with penetrating oil periodically. As necessary remove the magnet from drill and remove safety switch assembly from magnet. Push the plunger out of magnet. Clean out any debris from inside and around plunger hole in the magnet. Coat the plunger with anti-seize. Replace plunger and safety switch assembly and tighten down screws. Replace magnet onto drill housing

### HINTS FOR SMOOTHER OPERATION

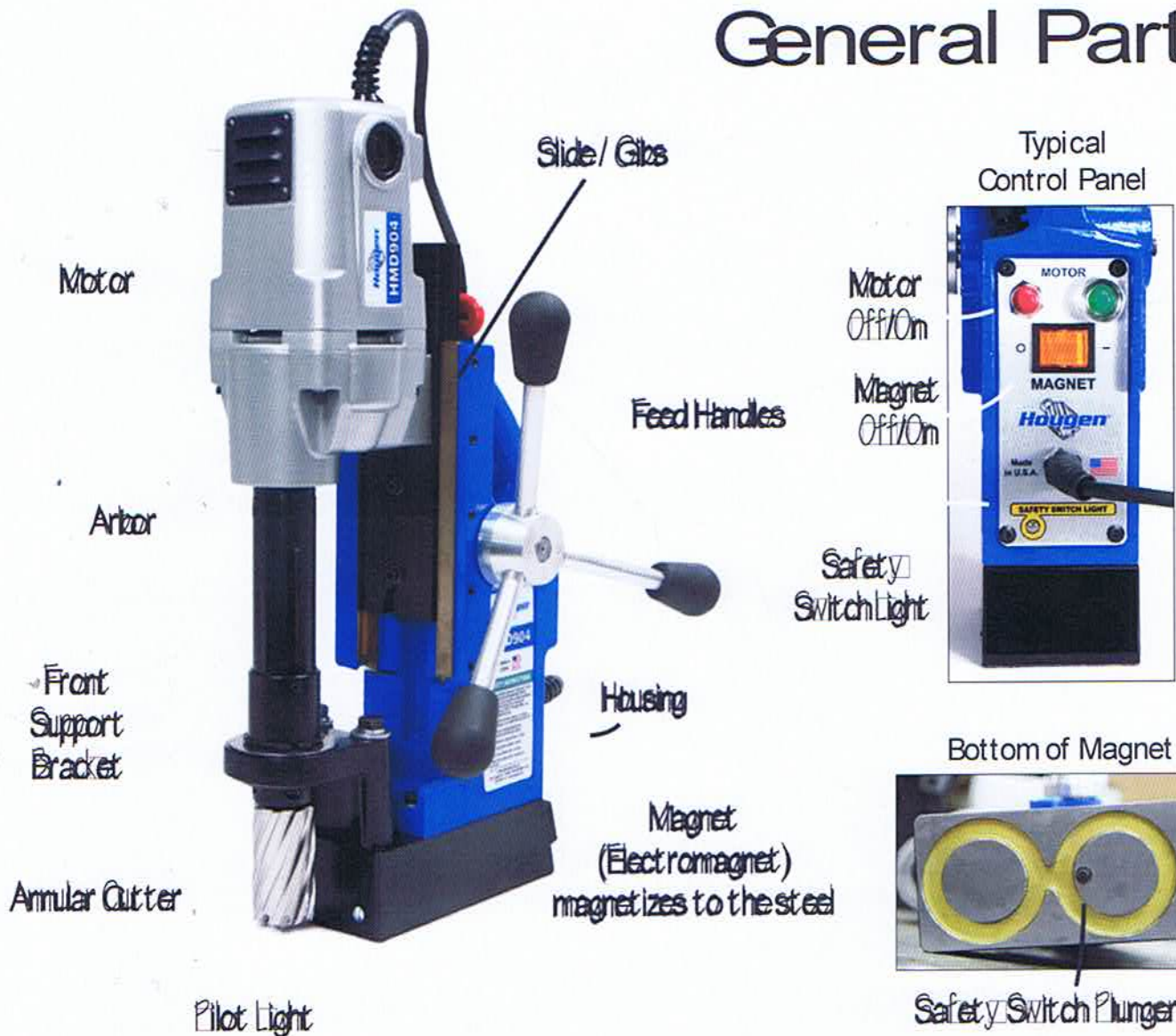
1. Keep the inside of Hougen Cutter clear of chips. Chips will interfere with cutting
2. Keep work, machine, arbor and Hougen Cutter free of chips and dirt.
3. Tighten all bolts and fasteners regularly.
4. We highly recommend using a light viscosity cutting fluid.
5. Occasionally check metering of cutting fluid flow. Lack of cutting fluid may cause cutter to freeze in cut, slug to stick and may result in poor cutter life.
6. Always start cut with light feed pressure and then increase sufficiently to achieve maximum rate.
7. Ease off on pressure as cutter begins to break through at the end of the cut
8. Keep slide dovetails, brass gibs and feed rack lubricated and free of chips and dirt, allowing it to be ejected.
9. When slug hangs up in cutter, turn off motor and bring cutter down on a flat surface. This will normally straighten a cocked slug, allowing it to be ejected.
10. When cutting large diameter or deep holes it may be necessary to stop in the middle of the cut to add cutting fluid and remove the chips from around the arbor. (When doing this DO NOT raise the cutter out of the hole. Doing so can allow chips to get under the teeth of the cutter. This will make it difficult to restart the cut.)

### SAFETY PRECAUTIONS

Stay alert, watch what you are doing. **Do Not** wear loose clothing or jewellery. Keep long hair tied back. Keep hair, clothing, and gloves away from moving parts. Keep work area clean and well lit. Ensure cord is in good condition and plugged into a grounded outlet. Ensure that the switch is off before plugging in. Disconnect the tool from power source before making any adjustments, changing accessories or storing the tool. Keep cutting tools sharp and clean. Refer to manufacturer's instructions for complete list of safety precautions. Follow Milepost Policies, Safe Work Practices and Safe Job Procedures pertaining to use of magnetic drill.



# General Parts



## SAFETY FIRST



Always wear eye protection while using cutting tools, or in the vicinity of cutting.



CAUTION! The slug is ejected at the end of the cut. Do not aim cutter or arbor so that ejected slug may hit someone around, or below you.



CAUTION! Cutters are sharp. Wear gloves when installing or removing cutter from arbor. Do not grab a rotating cutter.



CAUTION! To prevent electric shock, do not use power tools near wet areas, or where power tool may become wet.



## STEEL BANDER

### Job Procedures

#### Part 4 (67)

Workers using the Steel Bander must be trained in the safe use and operation of the bander and shall review the manufacturer's manual prior to using the bander.

All required PPE must be worn hard hat, steel toed work boots, coveralls, safety glasses, and gloves.

- Always wear leather gloves when working with steel bands. Whether you're unravelling or wrapping it around cargo, these gloves are essential to safety.
- Neatly stack items to be banded.
- Place bander in front of desired band location
- Wrap both ends of strapping around product.
- Insert banding in tightener by pressing down on handle to lift jaws.
- Pull strapping as close to the product as possible to reduce amount of tensioning that will be necessary.
- Ratchet banding until strapping has reached the desired tension. Avoid over tightening as banding can snap.
- Place the seal, open side down on top of both pieces of strapping.
- Crimp the seals with crimping pliers.
- Press down on tightener to release and remove.
- Cut banding on roll side of seals using the steel strapping cutter.

### Safety Precautions:

- Keep other workers clear of the area where you are using the steel bander.
- When pressure is released from the banding, the steel can immediately lash out as a dangerous weapon.
- Once you begin to wrap the bands and apply pressure, your hands are immediately in their way if the bands come loose or tighten too quickly.
- **Do Not** stand in line with the strap while it is being tensioned, the strap could break if over tensioned.
- **Do Not** put hands or other parts of the body between the strap and the package.
- Handling the cut steel banding can cause cuts, the steel is very sharp.
- Use the appropriate cutting, crimping or banding tools that are specially designed for this use.
- **Do Not** use cutters which are cracked, broken or loose.
- **Do Not** repair cutters. Discard equipment that is cracked, broken or shows signs of damage.
- If you are cutting banding off cargo, know what is inside. Take time to figure out what is inside so you can prepare yourself. Often contents are under enough pressure that steel bands are the least of your worries.
- Don't leave bands lying around. They should be disposed of immediately. They could still be dangerous for other workers if they step on them.





## **MIG WELDING MACHINE OPERATION**

Job Procedure  
Part 4 (68)

- Turn on welder
- Open valves on gas bottles
- Clamp ground to steel being welded.
- Lower welding helmet and pull trigger to begin welding, periodically dipping gun tip in anti-splatter.
- When finished turn off gas bottles and welder. Wind up cables and put machine away.
- Be aware of the mig wire, it is very sharp and can easily get stuck in a finger. Use caution when handling mig wire.



Job Procedure  
Part 4 (69)

## USE OF METAL SCAFFOLDS

### GENERAL

There are various types of metal scaffolds and they all have a right and wrong way to be erected. The misuse of scaffolding is the causes of numerous serious injuries. Every worker who designs or constructs a scaffold should be competent and know what the manufacturer's specifications are for that type of scaffold.

The scaffold type, which will be best suited for the job and capable of withstanding the loads to be imposed on it, must be determined before the job begins.

#### **Ensure that:**

- The scaffold you intend to use is the correct one for the job.
- Ensure that the load to which a scaffold is subjected never exceeds the equivalent of one quarter of the load for which it is designed.
- An employer must ensure that a scaffold is colour coded using tags at each point of entry indicating its status and condition as follows: (a) a green tag with "Safe for Use", or similar wording, to indicate it is safe for use; (b) a yellow tag with "Caution: Potential or Unusual Hazard", or similar wording, to indicate the presence of a potential or unusual hazard; (c) a red tag with "Unsafe for Use", or similar wording, to indicate it is not safe to use.
- A worker must not use a scaffold if it has a red tag, a green or yellow tag that has expired, or no tag at all.
- Scaffold planks are inspected by a competent worker to ensure that the scaffold planks are free of defects before the planks are incorporated in a scaffold. Where a metal scaffold is used, ensure that the metal scaffold is inspected, by a competent person, prior to use and daily when in use for any damage, deterioration, or weakening of the scaffold or the scaffold's components. If a metal scaffold or a component of a metal scaffold is damaged, deteriorated, or weakened so that the strength or stability of the scaffold is affected, ensure that the scaffold is not used until the scaffold or component is repaired or replaced by a competent person in accordance with the manufacturer's or a professional engineer's specifications and recommendations.
- A maintenance and inspection record shall be attached to the aerial device, work platform, or scaffold with the date of the last maintenance and the name and signature of the person who performed the maintenance. The maintenance shall be done in accordance to the manufacturers recommendations.

Cont.....



## USE OF METAL SCAFFOLDS

Job Procedure  
Part 4 (69)

- The location in which the scaffold is to be constructed is level or is capable of presenting secure footing by use of mudsills or some other device.
- Only competent workers will erect the scaffold.
- Legislative and manufacturer's requirements have been complied with Safe access and egress to both the scaffold and the general work area has been provided Levelling adjustment screws have not been over extended.
- Tower scaffolds have outriggers or are guyed and have all component parts secured in place (i.e. cross braces, pins, lateral braces).
- Scaffold work platforms have perimeter guardrail.
- Horizontal rail-0.92 metres to 1.07 metres above the platform.
- Intermediate rail – horizontal rail midway between scaffold platform and top rail.
- Toe board – horizontal rail midway between scaffold platform and top rail.  
Toe board – horizontal member at platform level no less than 140 mm in height above the platform level
- Scaffold planks are of number one grade materials with a maximum span of 3.1 metres on light duty and 2.3 metres on heavy duty with a maximum projection beyond the ledger of no more than 300 mm.
- An employer shall ensure that: (a) a worker who operates an aerial device or elevating work platform is trained to operate the device or platform safely; and (b) the training includes the manufacturer's instructions and recommendations, the load limitations, the proper use of all controls, and any limitations on the surfaces on which the device or platform is designed to be used. Training may be performed in-house or by a 3rd Party.
- A person on an elevating work platform must wear a personal fall arrest system secured to a suitable and substantial anchorage point.

### General Safety Regulations

Part 23 - Section 323 – Scaffolds Generally

Part 23 – Section 329(1) – Scaffold Planks

Part 23 – Section 331 – Metal Scaffolds

**\*FOR FURTHER INFORMATION SEE THE APPROPRIATE CURRENT OCCUPATIONAL  
HEALTH AND SAFETY REGULATIONS**



## **Loading Dike Frames On To Cart**

Job Procedure

Part 4 (70)

- Pick up frame from jig with proper lifting chain and crane.
- Roll cart up to jig table.
- Place frame on cart using crane.
- Secure frame to cart with safety chain.
- Unhook lifting chain
- Roll cart back out of the way, putting a chock block under the tires to prevent runaway.

\*Note: 4' frames and under - maximum 7 to a cart.

5' and 6' frames – maximum 3 to a cart



# Use of Leister Heat Gun

## Job Procedure Part 4 (71)

- Always do a visual inspection of tool before use, with attention to condition of power cords, main plug, extension cords, nozzle, and trigger mechanisms. Perform any maintenance if required. Tag out any defective tool.
- Only workers authorized to operate this tool or workers that have been adequately instructed and trained, and have demonstrated an ability to safely operate it. Workers must be aware of the hazards involved with the use of this tool and the preventative measures to reduce the risk of injury or incidents.
- PPE: safety glasses w side shields, 6" CSA approved steel toed work boots, CSA approved hard hat, gloves (leather or other non-flammable), coveralls or long sleeved shirts and pants.

### Safety Precautions:

- Electrical Shock: Inspect power cord and main plug to ensure it is in good condition. A damaged casing or an open unit can lead to hazardous electric shock.  
Working in rain or wet conditions can lead to electric shock, keep the unit dry.
- Danger of fire or Explosion: Heat can ignite combustible materials and gases, inspect the work area before starting work to ensure that no flammable materials or gases are present. DO NOT work on fuel or gas containers.
- Danger of Injury: Tool reaches temperatures of 600-700 degrees, use extreme caution. The hot air jet can cause burns to skin, or other materials close to heat nozzle. DO NOT point the unit at the same spot for extended periods. Never leave the unit unattended, watch closely at all times. DO NOT TOUCH the nozzle or tube when they are hot. DO NOT point nozzle at yourself or anyone else. DO NOT allow the hot nozzle to come into contact with any flammable surface.
- Keep the unit and ventilation slots clean at all times. Do not allow nozzle attachment to become clogged.
- Danger of Intoxication: Avoid breathing in vapors which could be toxic, use in well ventilated area or wear respirator if necessary.
- Ensure that the unit is cooled before turning it off.
- Ensure that you are using proper voltage cords and power source.

### Operation:

- Plug in leister, using proper voltage extension cord and power source. Set heat level to desired setting. Heat up takes approximately 2-3 minutes.
- When you are building a liner or patching a liner, the leister will be used to tack together sections or pieces of liner. The leister will melt the pieces of liner together to hold the liner in place. The liner will then be welded together along the seam in order to seal it.
- The liner should be placed overlapping (3" - 4") the next section of liner, or when repairing liner, cut a patch large enough to generously cover rip or hole that you wish to repair.
- Place the leister heat gun close to the surface of the liner and allow it to heat enough so that the top section of liner, when pressed down over the heated area, will stick.

Cont.....



Job Procedure  
Part 4 (71)

## Use of Leister Heat Gun

- You may use a roller to press the liner together as you use heat the liner with the leister heat gun. This will produce a good, even seal.
- Check to ensure that the liner is tacked by using the “Pick Test” method. Use a flat head screw driver to try to pry liner sections apart, if liner does not separate, it should be well tacked.
- DO NOT over heat the liner! If you keep the leister heat gun pointed on one spot for too long, it will burn a hole right through it. Which must be repaired before you proceed.
- Start with your heat set at a lower setting until you are familiar with using the heat gun. As you get more familiar with it you can increase the temperature setting. It must be hot enough to tack liner well.
- Once the liner has been tacked with the leister heat gun, it will be buffed and welded with the plastic welder. (See Job Procedure Part 4(40) “Assembling Liners”. This will ensure the seams are sealed and ensure the containment system is built to specifications.
- Depending on liner specifications, the plastic welder if not always required to seal the liner.





# Operation of the Pressure Washer

## Job Procedures

### Part 4 (72)

Only workers authorized, adequately instructed and trained and have demonstrated the ability to safely operate the pressure washer will be allowed to use this equipment. Workers will be familiar with the hazards involved and the preventative measures to eliminate or control the hazards.

PPE: Safety glasses w side shields, 6" CSA approved steel toed work boots, CSA approved hard hat, gloves, long sleeved shirt and pants, or coveralls, or rain gear. Hearing protection is required if working inside, near unit.

Safety Precautions: **Eye Injury**: back blast from water or debris from unit being washed. **Burns** from hot water or wand: hold insulated hand hold area, wear gloves, **Risk of Injection or severe injury**, keep clear of nozzle, never direct spray at persons, Damage **to unit** from improper use, and be familiar with pressure washer manual to ensure it is not damaged during use.

### Steps for Operation of Pressure Washer:

- 1- Read the manual provided and become familiar with the function, operation and safety controls.
- 2- Ensure that eye protection is worn as well as all other required PPE.
- 3- Turn on the water supply to the pressure washer. The water must be turned on before starting. Running the pump dry will cause damage and void the warranty.
- 4- Ensure that detergent container is full if required for whatever you are washing. Use only detergent intended for pressure washers.
- 5- Select the pressure nozzle that matches your cleaning needs. Ensure pump is turned off and install nozzle to the end of the wand. **Warning!** Risk of injection or severe injury- keep clear of nozzle-Do Not direct discharge stream at persons.
- 6- Do not allow the machine to run with the trigger gun released for more than 10 minutes at any time or damage to the pump may occur.
- 7- If hot water is desired, adjust the thermostat to the proper temperature and turn burner switch on.
- 8- Watch out for burns from hot water and back blast from water or dirt particles.
- 9- Ensure that the detergent inlet line is in the container of mixed detergent.
- 10- Wash from the bottom to the top, using side to side motions.
- 11- Wash at a 30 degree to 60 degree angle to the work. This will allow the water to splash away from you.
- 12- Use the width of the spray pattern to wash in a wide path. Overlap spray paths for complete coverage, moving from side to side, using slow steady motions
- 13- The nozzle should be 12" to 24" from the work, closer for tough areas. Be careful on painted or delicate surfaces, the pressure may damage the surface if the nozzle is too close.
- 14- Close the detergent ON/OFF valve to permit rinse. Always rinse with cold water after using detergents. Rinse from the top to the bottom to prevent detergent from dripping onto rinsed area.
- 15- If burner was used, turn OFF burner switch and allow pump to run cold water through coil for several minutes.
- 16- Turn pump switch OFF
- 17- Turn water supply OFF
- 18- Squeeze trigger gun open to relieve pressure system.
- 19- Turn water supply OFF
- 20- Coil up the hose and put wand away. Leave the area tidy.



# Operation of the Hydraulic Post Pounder

## Part 4 (73)

Operation of the hydraulic post pounder may only be performed by a qualified operator trained in its operation. The operator must understand the safety, accident prevention and operating instructions before installing, operating, repairing, maintaining, or changing accessories on the machine.

### Personal Protective Equipment:

Operators and all other persons in the working area must wear PPE, including at a minimum:

- CSA approved hard hat
- Hearing Protection
- Safety glasses with side shields
- Protective gloves
- CSA approved steel toed boots
- Coveralls
- Respiratory protection when required

### Transportation of the Post Pounder:

Transportation of the hydraulic post pounder may only be undertaken by persons who are authorized to operate a crane, picker truck or forklift. They must be aware of all the relevant safety instructions and accident prevention instructions and have reviewed the transportation chapters in the manual.

### Safety Precautions:

- Hydraulic oil: can cause burns and skin eczema. Wear gloves, and wash hands after contact with hydraulic oil.
- Hydraulic oil at high pressure can penetrate the skin and cause permanent injury. Immediately consult doctor if hydraulic oil has penetrated the skin.
- Accidents due to slippery conditions in the case of a spill.
- Hydraulic system: compressed gas explosion hazard. The integrated piston accumulator is pressurized even when shut off. Only authorized personnel that are qualified to work on the accumulator will be allowed to perform work on it.
- Moving Parts: risk for leaking oil and personal injury, such as crushed hands and fingers.
- Explosion Hazards: if working tool comes into contact with explosives or explosive gases an explosion could occur. Never operate the machine in any explosive environment or around flammable materials or fumes or dust.
- Always run the hydraulic machine with the correct operating pressure. See "Technical Data".
- Dust and fumes generated or dispersed when using the machine.
- Electric shock: never work in the proximity of overhead power lines or other electrical power sources.
- Projectiles: Failure of the work piece, of accessories, or even of the post pounder itself may generate high velocity projectiles. Splinters or other particles may become projectiles and cause bodily injury by striking the operator or other workers nearby. Before starting, ensure that persons not directly involved with the work are not in the danger area. If possible close off the work area.
- Never operate unless the working tool is retained with a proper tool retainer.
- Noise Hazard: High noise levels can cause permanent hearing loss, always use hearing protection.
- Hot working tool: the tip of the working tool can become hot when used. Touching it can cause burns.
- Working Tool Hazards: accidental engagement of the start and stop device during installation or maintenance can cause serious injuries, when the power source is connected. Never inspect, clean, install, or remove the tool while the power source is connected.....





# Operation of Hydraulic Post Pounder

## Job Procedure Part 4 (73)

### Steps of Operation:

- Check the hydraulic post pounder before and during use. Check hoses, couplings, and ensure that bolts and connections are free from damage and are properly tightened. Lubricate if necessary. Ensure the working tool is properly retained.
- Operator of the post pounder shall have a Ground Disturbance certificate.
- Ensure all required PPE is worn.
- Confirm with site rep to ensure there are no underground hazards prior to driving posts.
- Ensure there are no overhead obstructions or power lines near work area.
- The hydraulic post pounder will be attached to the crane, with the safety hook properly latched.
- The crane/picker operator will operate the controls for the post pounder.
- Field crew, will aid in the installation process and will install post guide to the top of the dike wall, adjacent to a joint other than a corner, and tighten anchor bolts.
- A post will be inserted into the guide.
- The operator will position the post pounder over the top of the post which has been placed in the guide.
- The operator will lower the post pounder until it touches the top of the post. He will then drive the post downward until top is even with top of guide.
- Remove pounder and guide and install post cap, locking it over top of dike wall.
- Repeat this procedure for each joint in the dike wall except for corner joints.
- Under no circumstances will a picker be used to remove posts.
- Place all equipment, tools, chains, etc., on truck.
- Check with site supervisor to be sure he is satisfied, and get the Certificate of Acceptance signed. Clean up any remaining garbage. Leave site tidy.
- Fill out log book as required.
- Advise Milepost office of job completion, and travel as instructed.



## Operation of Hydraulic Post Pounder (on mast)

### Job Procedure Part 4 (74)

Refer to Part 4(73) for safety precautions, PPE, and general use instructions.

- Check the hydraulic post pounder before use and monitor during use. Check hoses, couplings, cable and ensure that bolts and connections are free from damage and are properly tightened. Lubricate if necessary. Ensure the working tool is properly retained.
- Operator of the post pounder shall have a Ground Disturbance certificate.
- Ensure all required PPE is worn including hearing protection.
- Confirm with site rep to ensure there are no underground hazards prior to driving posts.
- Ensure there are no overhead obstructions or power lines near work area.
- The hydraulic post pounder operates on a mast, which will be properly secured to the crane.
- The crane/picker operator will operate the controls for the post pounder.
- Locate the corner marker pin for the system and use a string line to mark the perimeter. This will ensure that the system is square.
- Crew members will mark out placement for posts and set posts out at marked position along the string line. The operator will move the mast and post pounder into place along the string line. A post will be placed along the mast and the post pounder will be lowered to the top of the post.
- A crew member must hold the post in place until the post pounder is engaged.
- The operator will engage the post pounder and drive the post down to the desired depth. A laser level will be used to ensure that the post is at the level required.
- Repeat this procedure till posts are set. Once posts are set, walls will be installed.
- If a post needs to be removed, the crane/picker will use limited pressure. Crew will use tools to aid in the removal. Care must be taken not to shock load the crane/picker unit.
- Place all equipment, tools, chains, etc., on truck.
- Check with site supervisor to be sure he is satisfied, and get the Certificate of Acceptance signed. Clean up any remaining garbage. Leave site tidy.
- Fill out log book as required.
- Advise Milepost office of job completion, and travel as instructed.



## Use of Vehicle Hoist

### Job Procedures Part 4 (75)

Workers using the vehicle hoist must be trained in its operation and use before operating the machine. Workers will review the manufacturer's manual prior to using the hoist to ensure proper use and maintenance of the machine.

Refer to "Safe Work Practice" Part 3 (46) Use of Vehicle Hoist

- **PPE REQUIRED:** safety glasses, CSA steel toed boots, close fitting protective clothing, long and loose hair must be tied back, **DO NOT STAND ON THE HOIST WHILE MOVING**, rings and jewellery should not be worn.
- **Potential Hazards:** falling objects, trapping hazards, crushing hazards, getting caught in moving parts.

#### To Lift Vehicle:

- Center the vehicle on the hoist, ensuring the weight is evenly distributed to the front and rear.
- Identify the correct jacking points and place the pads under the vehicle at the front and rear on the jacking points, ensuring contact.
- Only one person shall operate the hoist at a time.
- The hoist must not be operated unless it has a current certificate of inspection.
- Ensure the area is clear of people and equipment before operating.
- Check vehicle stability
- Remain clear of lift when raising or lowering vehicle.

**NOTE:** The four lift arms must at the same time contact the vehicles lifting point where manufacturers recommended.

- Press the UP button until the lift pads contact underside of the vehicle totally. Recheck to make sure vehicle is secure.
- Continue to raise the lift slowly to the desired working height, ensuring the balance of vehicle.
- Push lowering handle to lower lift onto the nearest safety. The vehicle is ready to repair.

#### To Lower Vehicle:

- Be sure to stay clear of around and under the lift, only leaving the operator in lift area.
- Press the button of UP to raise the vehicle slightly, and then release the safety device, lower vehicle by pushing lowering handle.
- Open the arms and position them to the shortest length.
- Drive away the vehicle.
- Turn off the power.
- Maintain with care, Keep lift clean and follow manual for proper lubrication and maintenance.
- **Danger!** This machine contains high voltage. Disconnect power before performing repairs. Lock out prior to performing electrical repairs.



Job Procedure  
Part 4 (76)

## COMPUTER WORK STATIONS

| Hazards:   | Personal Protective Equipment / Devices required / Other safety considerations | Training / Reference information |
|--|--|----------------------------------|
| <ul style="list-style-type: none"> <li>-Awkward / sustained postures – prolonged sitting</li> <li>-Repetitive movements – typing, using mouse</li> </ul> | -No PPE required   | -Injury prevention orientation   |

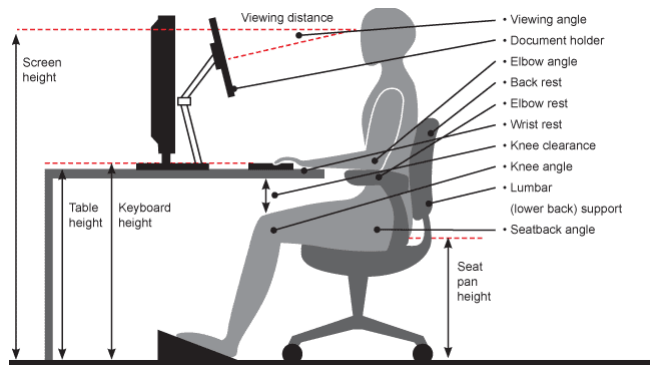
**Note:** Common signs and symptoms of a musculoskeletal injury (MSI) can include pain, burning, swelling, stiffness, numbness/tingling, and/or loss of movement or strength in a body part. Report these to your supervisor.

**Employers must ensure that workers are trained and follow this SAFE Work Procedure**  
**Steps to complete this task safely:**

Sitting for long periods with poor body positions can place more stress on your body. This can affect you from your wrists to your shoulders and low back up to your neck. This stress will often build up over time and can lead to symptoms such as eye strain, back soreness / stiffness, or headaches.

Take steps to avoid this.

- Before working at a workstation, adjust the chair and other equipment
- Try to sit with good posture as much as possible (see picture below)
- Look away from your screen periodically to refocus your eyes. A good practice is the 20-20-20 guideline which is to look away from your computer screen every 20 minutes and look at something 20 feet away for 20 seconds
- Avoid prolonged sitting. Get up at least each half hour and move around for a minute





## Excavator Operating Procedures

### Job Procedure

#### Part 4 (77)

Only workers qualified in the operation of the excavator will be permitted in its operation. Operator must read and follow all directions in the operator's manual. **DO NOT** operate machinery if you are tired or have taken medications that may cause drowsiness.

### PROCEDURES:

- Inspect machine to ensure it is in safe operating condition before using. Look for oil leaks, other fluids leaking, lose control cables, damaged tracks or other potential problems.
- Look at warning label and stickers posted around the machine for specific warnings or instructions.
- Wear seat-belts while operating machine.
- Keep doors closed so that guarding is effective when working.
- Ensure good housekeeping is maintained (no loose articles in cab)
- Operate at a safe speed.
- Check area to be excavated for overhead or underground lines such as electrical, gas, oil, water, etc. Keep as safe distance from electrical power lines. At least 3m if the line is 50k Voltage.
- Exercise due caution while working on hillsides.
  - Do not travel across a slope that is too steep for maintaining proper stability of the machine.
  - Confine travel to up and down slope.
  - When traveling across any slope, avoid running over logs, chunks, stumps, etc. which could cause the machine to become unstable.
  - Review and follow the safe work procedures for operating machinery on steep slopes.
  - If steep slope procedures unavailable do not operate machine on slopes greater than 30%.
- Ensure the tracks are adequately corked with ice lugs for winter operations. (for steel tracked machines only)
- Ensure a communication system is established, hand signals, spotters, or other form of communication.
- If you leave the machine, tell your co-workers.
- If at any time the machine becomes unstable, shut it down, and request assistance.
- Always enter and leave the machine in a safe manner. Use 3 point mount/dismount. Use the handholds for stability.

Cont.....



## Excavator Operating Procedures

### Job Procedure

#### Part 4 (77)

- Beware of the slipping hazards that exist, particularly in the winter especially when standing on the deck refueling.
- Always service your machine in the clear of dangerous trees.
- Follow the lock-out/tagout procedures while conducting maintenance work on the machine.(overleaf).
- Do not enter an active falling area, stay a minimum of two tree lengths away.
- Do not work in areas where there is a danger of pushing trees, rocks or other debris into an active work area.
- When pushing trees over, remove the tension out of the trees using the blade or winch so they may be bucked without danger of tree springing back.
- Do not exceed the Rated Lift Capacity of the machine.





## OPERATION OF THE GROUND HEATERS

### Job Procedures Part 4 (78)

Operators must read and understand all material in the Operators Manual before attempting to operate the glycol heater.

Hazards involved with the use of this machinery may include exposure to: heat, noise, exhaust fumes, burns, fire hazards, and tripping hazards from the hoses.

Failure to comply with precautions can result in death, serious injury, and property loss or damage from fire, explosion, burns, asphyxiation, carbon monoxide poisoning, and/or electric shock. See Safe Work Practice "Operation of Glycol Heater" Part 3(53)

Wear all PPE appropriate to the job site, safety glasses, gloves, coveralls, steel toed work boots of at least 6" high and hard hat.

The E 1100 thaws up to 2,300sq.ft.of frozen ground at an average of one-foot-per day, and allows for a single person set-up.

- Ensure proper permits are obtained for the use of ground thaw units
- Place the machine near the application area on solid stable ground. Level the machine, use trailer jack if necessary.
- Install chocks under the wheels.
- The Heat Transfer Fluid (HTF) level must be between the marks on the sight glass.
- Move the circuit breaker to the OFF position.
- Connect the main power cord to a properly rated power source or to the generator if included.
- Check fuel level, check quick connect couplings are secure.
- Check Heat Transfer Fluid level and hose connections are secure.
- Move the circuit breaker switch to the ON position.
- NOTICE: Starting the machine with frozen or partially frozen Heat Transfer Fluid will permanently damage the pumps. Pre-heat the HTF when ambient air temperature is below -26C. Follow the procedure in the operator's manual to pre-heat HTF. (3.15)
- Use the up and down arrows to set the HTF temperature to 70F (21C). This is the set temperature.
- When the temperature controller displays 70F, the HTF is preheated. (Refer to operators manual)
- Follow the procedure to initiate the HTF flow. (3.16)
- CAUTION: The hoses and components of the plumbing system may be very hot and could cause severe burns. Wear gloves when handling hot hoses or plumbing components.
- NOTICE: During the first minute of operation, the pressure should build to as high as 170 psi. If the HTF reaches 170 psi after only a second or two of operation, there is a problem. Shut down the machine and check for problem before continuing.
- Once the flow is established, pressure should be 125-140 psi. When the HTF is warm, operating pressure should be 90-110 psi.
- The hoses are now ready to be placed in the application area, spread the hoses evenly throughout the area where you wish to thaw ground. Refer to operators manual (3.17)
- Optional insulation blankets may be positioned over the hoses to increase system efficiency.
- Monitor the machine every 8-10 hours while it is operating to ensure safe and efficient operation.



## **Pipe Window Installation Procedure**

Job Procedures  
Part 4 (79)

1. Install studs and neoprene gasket on interior and exterior course of liner attachments
2. Install sheet liner across face of wall, splitting and trimming it to fit around pipes. Anchor liner to inner course of liner attachments.
3. Install and seam pipeline boots on pipes and to liner sheet, use Viton gasket between boot and pipe. Where there is heat tracing, butt gasket up to heat tracing. Band the boots and caulk the edge along the Viton gasket.
4. Install liner attachment bar, tighten, trim liner and caulk.
5. Install bottom half of sand box including the bottom half of the face plate that fits around pipes. Secure bolts and install knee braces to the bottom of the box. If necessary trim plates to fit pipes.
6. Install upper half of face plates and divider plates, bolt the upper and lower plates together and bolt divider plates together.
7. Install ratchet straps to hold top of the face plate secure during sand fill operation.
8. Double check bolts are all secure and there are no large gaps for sand to escape.
9. Fill concrete buckets with sand and dump into the sand boxes. By using 2 tag lines, you can use one to guide the box and to trip the other dump lever.
10. Fill so that liner boots are completely covered and box is full.
11. Install sand box lid and bolt it securely. Seal top and sides of lid and box with caulking at the face of the concrete.





# **Procedure to Inspect and Repair a Concrete Containment System**

Job Procedures

Part 4 (80)

## **Concrete Containment Inspection**

### **Dike Joints**

Inspect caulking to ensure that it is bonded to both sides of the joint.

If not, remove loose material and replace it with new Sika-Flex caulking. Ensure that caulking goes in as deep as possible and attaches to both sides of the joint.

### **Inspection of Liner Attachments**

Re-Torque all studs and nuts with a ½” impact wrench (bolts are to be re-torqued until the gasket begins to bulge upward).

Any studs that are missing are to be replaced with ½” x ½” bolts.

If caulking has separated from the angle, gasket, or concrete wall, it should be removed and replaced with a new bead of Sika-Flex caulking.



## SUBSTANCE ABUSE POLICY

### Company Rules

#### Part 5 (00.A)

All workers will be required to have a pre-employment drug test prior to working at Milepost.

Testing will take place as part of a full investigation when an individual actions, appearance or conduct while at work give Milepost reasonable grounds to suspect the use of alcohol or drugs.

Milepost Manufacturing Ltd. is dedicated to protecting the personal information of its employees and prospective employees. All drug and alcohol test results are confidential and access will be limited to designated personnel only.

Any employee or subcontractor in the possession of and / or consumption of alcohol, illegal drugs, and or the misuse of prescription drugs is prohibited on Milepost Manufacturing Ltd. jobsites including company vehicles.

Any employee taking prescription drugs prescribed by a licensed medical practitioner, which is known to possibly effect or impair his / her judgement, co-ordination or perception so as to adversely affect the ability to perform work in a safe manner must notify their supervisor immediately.

When an employee is taking prescription drugs under the care of a licensed medical practitioner, the supervisor, based upon the licensed medical practitioner's advice, will determine whether work restrictions apply.

Possession or use of intoxicating beverages and or unauthorized drugs on the job is strictly forbidden and constitutes grounds for **immediate dismissal**.

**Random drug and alcohol checks will be done at management's discretion.**

Manager's Signature \_\_\_\_\_ January 1, 2018



## SMOKING POLICY

General Rules  
Part 5 (00.B)

**Effective January 1, 2008 as per The Legislative Assembly of Alberta, BILL 45 Smoke-Free Places (Tobacco Reduction) Amendment Act 2007 the following applies:**

Smoking Prohibited:

1. Subject to Section 5, No person shall smoke:
  - In a public place
  - In a workplace
  - In a public vehicle
  - Within a prescribed distance (5 meters) from a doorway, window or air intake of a public place or workplace.

Manager's Signature: \_\_\_\_\_ January 1, 2018



5

# Company Rules



## **Fit For Duty / Fatigue Management / Substance Abuse**

### **Company Rules Part 5 (1)**

Milepost Manufacturing Ltd. is committed to providing a safe work environment and to protect the health and safety of its employees. In order to assist in maintaining a safe working environment it is essential that employees are physically and mentally able to perform their duties safely and efficiently.

Fitness for duty can be defined as the capacity of an individual to perform their job safely and competently. Provision of a safe work environment, which ensures that all workers are capable and therefore less likely to cause an incident, is the responsibility of both the employer and individual employees.

Milepost will ensure that all employees will have the necessary education, experience, and training to perform their job tasks, and will be physically capable to perform their assigned duties. This will be determined by the physical demands analysis for the job description and review of training certificates.

All employees are required to have a pre access drug test prior to employment with Milepost. Safety-sensitive positions in which the individual has a key and direct role in an operation where performance limitations due to substance use could result in a significant incident or near miss which may include fatalities, serious injury to workers or the public, significant property damage, significant environmental damage or detrimental impact to reputation will be tested for the use of drugs and/or alcohol. (Site foreman directing work activity, operators, drivers, or workers operating specialized equipment).

Violation of this guideline is considered serious and will result in disciplinary action appropriate to the nature of the violation, prior violations and/or discipline, and circumstances surrounding the situation. Some violations are considered sufficiently serious that termination may be warranted at the first occurrence, while other violations may result in progressive actions pending the results of an investigation.

Testing will take place as part of an investigation when an individual's actions, appearance or conduct give Milepost reasonable grounds to suspect the use of alcohol or drugs. Situations that warrant testing include a significant incident, near miss, or report of dangerous behaviour or reasonable grounds to suspect substance abuse. Post-incident testing shall be conducted as soon as reasonably practicable. Drug testing shall include both screening and confirmation tests consistent with recognized industry standards (Enform Alcohol and Drug Policy Model). Records of drug and alcohol testing are considered strictly confidential. These records shall be kept in a locked file and be accessible only to designated persons.

Any employee or subcontractor in the possession of and/or consumption of alcohol, illegal drugs, or the misuse of prescription drugs is prohibited on Milepost jobsites, including company vehicles and is grounds for immediate dismissal.

Any employee taking prescription drugs prescribed by a licensed medical practitioner, which is known to possibly affect or impair his/her judgement, co-ordination or perception so as to adversely affect the ability to perform work in a safe manner must notify their supervisor immediately.

When an employee is taking prescription drugs under the care of a licensed medical practitioner, the supervisor, based upon the licensed medical practitioner, advice will determine where work restrictions apply.

**RANDOM DRUG AND ALCOHOL CHECKS WILL BE DONE AT MANAGEMENT'S DISCRETION.**

Cont.....



## **Fit for Duty / Fatigue Management / Substance Abuse**

### **Company Rules Part 5 (1)**

#### **Employee Responsibilities**

- Reporting to work fit for duty
- Have an understanding of the drug and alcohol policy
- Take responsibility to ensure their own safety and the safety of others
- Notifying the manager/supervisor when not fit for duty...
- Notifying the manager/supervisor when observing a co-worker who may not be fit for duty (in cases where the possibly impaired individual is the employee's manager, the employee should make the notification to the next higher level manager or the Director of Human Resources/Payroll).
- Cooperating with a manager/supervisor's directive and/or referral for a medical evaluation.
- Employees must never operate equipment when they are excessively fatigued.

#### **Manager/supervisor responsibilities**

- Milepost Manufacturing Ltd. will train and educate supervisors to be able to recognize impairment in the workplace, as well as how to properly deal with an impairment situation. This includes recognizing the signs and symptoms of impairment and the procedures to follow when an employee is suspected of being impaired or having a substance abuse problem. (Poor concentration, increased absenteeism, carelessness, mistakes, errors in judgment, needless risk taking, disregard for safety, etc.)
- Milepost will train workers in the "Fit for Duty" policy, (including fatigue management) during orientation and through safety meetings, etc.
- Milepost will pro-actively respond to any reported or suspected violations of this guideline.
- Interviewing an employee who appears to the manager/supervisor (or third-party report) unfit for duty and referring an employee for a medical evaluation when appropriate.
- If you believe a worker to be overly fatigued, they should not be allowed to operate equipment.
- Observing the attendance, performance and behaviour of employees they supervise
- Recording the reasons/observations that triggered a fitness for duty medical evaluation referral
- Utilizing this policy in a fair and consistent manner, respecting the employee's privacy and the confidentiality of medical information.

**Fatigue** is increasingly being recognized as a factor that significantly impairs an employee's ability to perform their job safely and effectively. As a result, fatigue is being included in workplace fitness for duty policies. Fatigue causes a reduction in alertness and performance.

#### **SYMPTOMS OF FATIGUE**

- Slowed reaction times
- Reduced attention/motivation
- Poorer communication
- Decreased efficiency
- Increased variability of performance
- Decreased short term memory; and/or
- Increase risk taking behavior

Cont.....



## Fit for Duty / Fatigue Management / Substance Abuse

### Company Rules

#### Part 5 (1)

Training and education can assist employees in the recognition of the physical and psychological indicators of fatigue. These indicators include, but are not limited to:

- Involuntary napping
- Micro-sleeps
- Reduced vigilance
- Delayed reaction time irritability
- Irritability
- Poor hand and eye coordination

As affected individuals may not necessarily be aware of these indicators, employees need to monitor each other for signs or symptoms of fatigue. Take adequate breaks to minimize fatigue.

It is Milepost's responsibility to provide you with adequate breaks to get the rest you need between shifts. However, it is your responsibility to get the sleep you need to be fit for duty when you are at work. Generally, depending on the individual this means getting at least 6 – 8 hours sleep per 24 hour day.

### RISK MANAGEMENT

This dangers associated with extended working hours, and fatigue can be managed through risk assessments and fatigue management strategies. Risks need to be measured, monitored and mitigated to minimize the potential of endangering employees and the general public. The Milepost daily "Hazard Assessment" should include fatigue as a potential hazard if applicable.

The responsibility for risk management lies with both Milepost management and employees.

**For Milepost,** the responsibility to provide a safe and healthy workplace and system of work and to adjust job rotation schedules to control fatigue.

**For the Employee,** the responsibility is to undertake lifestyle management that ensures fitness for duty. Proper preparation and recuperation are necessary. Workers must notify supervisor if excessively fatigued. A worker may request help

If an employee is determined to be unfit for duty, Milepost Manufacturing Ltd. will provide reasonable assistance to the employee. This may include, but not limited to transferring the worker to another role, providing a leave of absence or referral to Alberta Health Services 1-866-332-2322.

An employee may request assistance if drug or alcohol use is causing them to neglect work responsibilities, cause problems with management or miss work. Employees will have the support of management if they do request help for treatment of an alcohol or drug addiction.

**Return to Duty** – Before an employee returns to work after an assessment by a Substance Abuse Expert, he/she must successfully pass a drug and/or alcohol test.



## Company Rules

### Part 5 (2)

## GENERAL SAFETY RULES

- Accidents, injuries, or “near misses”, regardless of their nature, shall be promptly reported to the safety manager.
- Approved hard hats shall be worn where required on the job by all personnel.
- Smoking is permitted only in designated areas. **“STRIKE ANYWHERE”** matches are prohibited.
- Running is not permitted anywhere, except in the case of an extreme emergency.
- Safety glasses, goggles or face shields shall be worn when metal chipping, welding, grinding and for other operations where eye protection is required.
- Hand tools shall not be used for any purpose other than that intended. All damaged or worn parts shall be promptly repaired or replaced.
- Only authorized personnel shall operate power tools, with guards furnished by the manufacturer “in place”.
- All electrical hand tools shall be grounded or double insulated.
- Explosive / power actuated tools shall be used only by persons who have been instructed and trained in their safe use.
- Compressed gas cylinders shall be secured in an upright position.
- Possession or use of intoxicating beverages or unauthorized drugs on the job is strictly forbidden and constitutes grounds for DISMISSAL.
- Riding on equipment is prohibited. No person shall ride any hook, hoist or other material handling equipment, which is used strictly for handling material and not specifically designed to carry riders.
- ONLY authorized personnel with appropriate personal protective equipment shall carry out welding and burning operations.
- Horseplay or being in possession of alcohol or illegal drugs on company premises, or on any Milepost Manufacturing Ltd. job-site is strictly prohibited.
- All unsafe acts and conditions, including **“NEAR MISS”** incidents, are to be reported to the safety manager promptly.
- All incidents that result in damage or injury are to be reported to the safety manager immediately.
- First aid treatment is to be obtained promptly for any / all injury.
- Safety boots and other personal protective equipment is to be worn on all job-sites where required.
- All work shall be carried out in accordance with appropriate safe work practices and your safety Manager’s direction.





Company Rules  
Part 5 (2)

## **GENERAL SAFETY RULES**

- Only those tools that are in good repair, with all guards and safety devices in place, shall be used.
- Every worker shall keep his / her work areas clean, neat and orderly.

### **Mandatory Requirements**

- Report to your supervisor all unsafe acts, unsafe conditions and near miss incidents. The person receiving the report must ensure the unsafe act or condition is investigated and corrective actions is taken.
- Report all injuries or accidents immediately.
- Perform all work in accordance with safe work practices and your safety Manager's direction.
- Maintain good housekeeping in your work area at all times. Floors and walkways must be kept free of slipping and tripping hazards.
- Inspections of shops, yard, tools, and equipment will be performed according to Milepost Manufacturing Ltd. Inspection Policy (Section 9 in the Safety Manual), bi-weekly or more frequently if required.
- Unsafe or harmful conditions found during the course of an inspection will be corrected without delay.
- Operate all vehicles and mobile equipment in accordance with site rules and highway regulations.
- Vehicles are to be kept clean inside and outside at all times.
- Report all traffic violations within 24 hours.

### **Prohibitions**

**The following are prohibited at all times on all company property and all company job-sites:**

- Possession or consumption of alcohol or illegal drugs.
- Possession of firearms.
- Fighting, horseplay, practical jokes, racial or gender.
- Theft, vandalism.
- Bullying or any violence.
- Damaging, disabling, or interfering with safety, fire fighting or first aid equipment.
- Arriving for work or remaining at work when ability to perform the job safely is impaired.
- Physical (or verbal harassment) (unwelcome or inappropriate conduct).



## Disciplinary Actions

### Company Rules

#### Part 5 (3)

### 1. Verbal Warning (documented by supervisor)

When you become aware of a problem, promptly speak to the employee, taking particular care to specify the deficiencies you wish to see corrected and how corrective action is to be undertaken. Have as many additional discussions with the employee as seems appropriate under the particular circumstances. Usually, at this early stage, the employee should be given advice and guidance rather than a reprimand. It is important to maintain, at a minimum, a log of all discussions of this nature with employees. If the employee seems uncertain of the advice being given, then a confirmation of the discussion (s) in writing is advisable. The "Disciplinary Policy" shall be posted in the lunchroom area.

### 2. Written Warnings

If after a reasonable period of time, there is not improvement, write formally to the employee explaining the reasons for your dissatisfaction with his or her conduct. Often it is helpful if such a letter makes reference to your earlier discussions with the employee. Ultimately it may be necessary to write to the employee to indicate that he or she will be suspended without pay or terminated if there is insufficient improvement in their conduct. Have the employee sign a copy of the letter and give the employee a copy of the letter.

### 3. Dismissal

If there continues to be insufficient improvement, a suspension without pay for a short period of time is appropriate. You should specifically state, in a suspension letter, that the employee will be subject to further suspensions without pay or termination if there continues to be insufficient improvement.

Any employee that does not follow Safe Work Practices or/and Safe Job Procedures, Milepost Policies and Procedures, or Rules will be subject to immediate dismissal.

**YOU ARE ACCOUNTABLE FOR YOUR ACTIONS**



Company Rules  
Part 5 (4)

**ALL ON-THE ROAD EMPLOYEES**

Time Books and Receipts

A reminder that the following information is **REQUIRED**.

**TIME BOOKS**

- All Job Codes, properly broken down. If you don't know, ask Stan before you leave.
- Cross-border travel – Record the hours in both provinces for any day you cross a provincial border (NOTE the time of day that you crossed the border).
- **DRIVERS** record odometer reading at border crossing on your log sheets.

**MASTER CARD AND/OR VISA SLIPS**

- Turn in **ALL** receipts at the end of every trip.
- Record the applicable job numbers on the front of every receipt. If you go from one job to another in one trip, be sure to sort it all out properly. If you don't, I can't.
- Make sure that the names of the employees are on the front of each meal receipt, along with the job numbers. Revenue Canada requires this.

**FUEL RECEIPTS**

- Turn in **ALL** fuel receipts at the end of every trip.
- Record Unit Number the fuel went into (for tractor units and pickups) on the front of every receipt.



6

# Personal Protective Equipment



## PERSONAL PROTECTIVE EQUIPMENT POLICY

### Personal Protective Equipment Part 6 (000.A)

- It is the policy of Milepost Manufacturing Ltd. to have all workers use the proper personal protective equipment when and where required. Milepost Manufacturing Ltd. will ensure that workers are trained in the correct use, care and maintenance of Personal Protective Equipment.
- Milepost Manufacturing Ltd. will ensure if a worker eyes may be injured or irritated during the course of their work, the worker will wear properly fitting eye protection that is approved to CSA Standard Z94.3-07, Eye and Face Protectors. Prescription safety eyewear having glass lenses shall not be worn if there is danger of impact unless worn behind safety glasses that meet the standard.
- Milepost Manufacturing Ltd. will ensure that workers use footwear appropriate to the hazards associated with the work being performed and is approved to CSA Standard Z195-02, Protective Footwear.
- Milepost will ensure that workers wear protective headwear that is appropriate to the hazards and meets the requirements of CSA Standard Z94.1-05 Industrial Protective Headwear. OH&S Code Part 18.234 (1-2)
- Workers at risk of sustaining injuries to their hands shall wear proper fitting gloves appropriate to the work being performed.
- Milepost will ensure that a worker's skin is protected from harmful substances that may injure the skin on contact or may adversely affect the worker's health if it is absorbed through the skin.
- All employees, subcontractors and visitors are to wear the necessary personal protective equipment on all Milepost Manufacturing Ltd. job sites.
- All personal protective equipment used will be in good condition and maintained according to the manufacturer's instructions.
- Company supplied personal protective equipment will conform to OH&S Safety Code Part 18. 228-255 requirements.
- All personal protective equipment that is of questionable reliability, damaged, or in need of service or repair will be removed from service immediately.
- All personal protective equipment that has been removed from service will be tagged "**out of service**" and will not be returned to service until repaired and inspected by a qualified Milepost Manufacturing Ltd. employee.

**Employees should be familiar with the O.H. & S. Act and Regulations.**

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018



## GENERAL INFORMATION

### Personal Protective Equipment Part 6 (1)

The Alberta Occupational Health and Safety Regulations states that an employer shall take reasonable measures to reduce hazards to a level where personal protective equipment would not be necessary. However during some work operations conducted by Milepost Manufacturing Ltd. it is impractical or impossible to eliminate all workplace hazards. Therefore all workers performing jobs for Milepost Manufacturing Ltd. require personal protective equipment.

This section of the safety manual addresses the type of personal protective equipment acceptable for use by Milepost Manufacturing Ltd. employees. This will be considered a minimum standard for the following:

- Foot Protection CSA Standard Z195-02 Protective Footwear/OH&S Part 18 233(1)-(5)
- Eye and Face Protection. OH&S Part 18 229(1) -231
- Hearing Protection. OH&S Part 16
- Head Protection. OH&S Part 18 234(1) -234(2)
- Limb and Body Protection. OH&S Part 18 242-243
- Respiratory Protection. OH&S Part 18 244(1) -255
- Protective Clothing. OH&S Part 18 228(1)-228(3) FR Clothing 232(1)-(2)

**It is not the intention of this safety program to outline specific personal protective equipment for all situations. The ultimate responsibility of selecting suitable personal protective equipment lies with the job supervisor and the individual worker. Workers requiring specialized PPE will be trained in the selection, use and care of the PPE.**

**Employees should be familiar with the O.H.S. Act and Regulations.**

**No employee shall be exposed to a substance listed in OH & S Regulations at a concentration exceeding its ceiling limit at any time.**



## PROTECTIVE CLOTHING

### Personal Protective Equipment Part 6 (2)

#### GENERAL

Milepost Manufacturing Ltd. will ensure that whenever an employee is in potential danger from physical, chemical and/or biological hazards, the employee will wear suitable protective clothing to protect his body from injury.

- Information about specific protection from chemicals can be obtained from the respective MSDS sheets.
- For protection from cold temperatures, employees are recommended to wear layered clothing that can be removed or added as required. (See Safe Work Practices; Part 3 (39-40) Thermal Exposure.
- Baggy, loose or torn clothing will not be permitted on the worksite.
- Every worker shall provide and wear clothing suitable for the conditions and work being performed. Long sleeved shirts should be worn at all times for protection from sunburns, scratches, insect bites and excessive dirt. Full length trousers shall be worn.
- Head and facial hair shall be completely confined or cut short.
- Dangling neckwear, neckties, jewellery, rings or other similar items shall **NOT** be worn.
- Hard hats must be worn at all times (except while operating mobile equipment with roll over protection).
- Proper goggles, face shield and other eye protection must be worn when engaged in work, which there is an eye hazard.
- A worker shall wear CSA approved ankle height work boots. Laces must be properly tied up. Running shoes of any type are not acceptable.
- Workers shall wear suitable protective clothing when handling harmful substances injurious to the skin.

#### GLOVES

- Gloves are required to provide hand protection. For normal work, cotton/ leather fitter's gloves are appropriate. Choose Kevlar gloves if you are cutting materials. When working with hot equipment, choose a glove that will resist heat. Specialized gloves are required to protect against the effects of chemicals, check the MSDS for information on the type of hand protection required.
- Choose the glove most suitable to provide the best protection for the job you are performing. A variety of gloves are available from your supervisor.
- Gloves should be inspected before each use to ensure that they are not torn, punctured or made ineffective in any way. Any glove with impaired protective ability should be discarded and replaced.
- Reuse of chemical-resistant gloves should be evaluated carefully, taking into consideration the absorptive qualities of the glove.
- Ensure that gloves fit properly.
- Ensure that exposed skin is covered (no gap between the sleeve and the glove cuff).
- Follow manufacturer's instructions on the care and use of the gloves.
- **Never-** wear gloves when working with moving machinery (gloves can get caught or tangled).
- **Never** – wear hand personal protective equipment with metal parts near electrical equipment
- **Never** – use gloves or hand protection that is worn out.

Cont.....



## PROTECTIVE CLOTHING

### Personal Protective Equipment Part 6 (2)

#### **FIRE RESISTANT WORKWEAR**

Milepost Manufacturing Ltd. will require employees and sub-contractors to have available, and wear suitable FR clothing whenever they could be potentially exposed to a flammable and/or combustible atmosphere. Workers involved on worksites or in operations that have been classed as having a fire and explosion hazard will be required to wear the following

#### **OUTER CLOTHING**

Material that is inherently non-flammable and does not melt when exposed to heat or cause a buildup of static electricity. Nomex or Proban are some of the options available.

#### **INNER CLOTHING**

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

**NOTE: Nylon and 100% polyester clothing will not be acceptable as inner or outer clothing on worksites.**





## FOOT PROTECTION

### Personal Protective Equipment Part 6 (3)

#### GENERAL INFORMATION

- Safety footwear is designed to protect against foot hazards in the workplace. Safety footwear protects against compression, puncture injuries, and impact.
- Safety footwear is divided into three grades, which are indicated, by coloured tags and symbols.
- The **TAG COLOR** tells the amount of resistance the toe will supply to different weights dropped from different heights.
- The symbol indicates the strength of the sole. For example, a TRIANGLE means puncture – resistant sole able to withstand 135 kg (300-ft. lbs) of pressure without being punctured by a 5-cm (2-inch) nail. For more information, look at Albert's O.H. & S. Statute and Regulations or CSA Standard "Protective Footwear" Z195-M1981.
- It is recommended that only the **GREEN TRIANGLE** grade of footwear, which also gives ankle support, be used.
- Your choice of protective footwear should always over protect, not under protect.

#### ALWAYS

- Choose footwear according to job hazard and CSA Standards.
- Lace up boot and tie laces securely; boots don't protect if they are a tripping hazard or fall off.
- Laces need to be tied securely to give proper ankle support.
- Use a protective boot dressing to help the boot last longer and provide greater water resistance (wet conduct current).
- Choose a high cut boot to provide ankle support (less injuries).

#### DO NOT

- Wear defective safety footwear (i.e. exposed steel toecaps).
- Under protect your feet or modify safety footwear.

#### General Safety Regulations

Part 18 – Section 228(1 – 3)

Part 18 – Section 233(1)

Personal Protective Equipment

Foot Protection



## NOISE and HEARING PROTECTION

### Personal Protective Equipment Part 6 (4)

**Milepost Manufacturing Ltd.** shall ensure that all reasonably practicable means are used to reduce noise levels in all areas where workers may be required or permitted to work. The means to reduce noise levels may include any of the following:

- (a) eliminating or modifying the noise source
- (b) substituting quieter equipment or processes
- (c) enclosing the noise source
- (d) installing acoustical barriers or sound-absorbing materials

Milepost Manufacturing Ltd. shall ensure that:

- (a) all new places of employment are designed and constructed so as to achieve the lowest reasonably practicable noise level
- (b) any alteration, renovation or repair to an existing place of employment is made so as to achieve the lowest reasonably practicable noise level
- (c) all new equipment to be used at a place of employment is designed and constructed so as to achieve the lowest reasonably practicable noise level

***The “rule of thumb” for hearing protection is: use hearing protection when you can’t carry on a conversation at a normal volume of voice when you are 3 feet apart.***

***Workers exposure must not exceed exposure limits as per Alberta Occupational Health and Safety***

- Where a worker’s occupational noise exposure equals or exceeds 85 dBA Lex, the worker shall be informed of the hazards of occupational noise exposure. Where it is not reasonably practicable to reduce a worker’s occupational noise exposure below 85 dBA Lex or the noise level below 90 dBA in any area where a worker may be required or permitted to work, the worker shall be trained in the selection, use, and maintenance of hearing protectors. Where a worker’s occupational noise exposure is or is believed to be between 80 dBA Lex and 85 dBA Lex, an employer shall inform the worker of the hazards of occupational noise exposure. Training shall be performed in-house.
- Where it is not reasonably practicable to reduce a worker’s occupational noise exposure below 85 dBA Lex or the noise level below 90 dBA in any area where a worker may be required or permitted to work, Milepost shall provide hearing protection to the worker.
- Affected workers will be informed of the results from any noise exposure measurement and the significance of the measurement to risk of hearing loss.

Cont.....



## **NOISE and HEARING PROTECTION**

### **Personal Protective Equipment Part 6 (4)**

- In every area where workers are required or permitted to work and the noise level may frequently exceed 80 dBA, and Milepost shall ensure that: (a) the noise level is measured in accordance with an approved method; (b) a competent person evaluates the sources of the noise and recommends corrective action; and (c) the measurements, evaluation, and recommendations are documented.
- Milepost shall re-measure the noise level where altering, renovating or repairing the place of employment, introducing new equipment to the place of employment or modifying any process at the place of employment may result in a significant change in noise levels or occupational noise exposure.
- Milepost shall ensure that any area in which the measurements taken show noise levels in excess of 80 dBA is clearly marked by a sign indicating the range of noise levels.
- It is important to have different styles of hearing protection available. Different styles allow a better chance of a good fit. Each person's head, ear shape and size are different. One style may not fit every person on your crew. If hearing PPE does not fit properly or is painful to use, the person will likely not use it. If the hearing protection is not fitted, it will not supply the level of protection it was designed to deliver.
- Most earplugs, if properly fitted, generally reduce noise to the point where it is comfortable (takes the sharp edge off the noise).

**For further information, look at the CSA Standard "Hearing Protectors" Z94.2 M1984.**

**\*Milepost Manufacturing Ltd. crews work on sites where we have no control over the source of noise and therefore would abide by our clients instruction.\***



## EYE AND FACE PROTECTION

### Personal Protective Equipment Part 6 (5)

#### GENERAL INFORMATION

This personal protective equipment is designed to protect the worker from such hazards as:

Flying objects and particles.

Molten metals.

Splashing liquids.

Ultraviolet, infrared and visible radiation (welding).

**This personal protective equipment has two types. The first type, “BASIC EYE PROTECTION”, includes:**

Eyecup goggles,

Monoframe goggles and spectacles with or without side shields.

**The second type “FACE PROTECTION” includes:**

Metal mesh face shields for radiant heat or hot and humid conditions.

Chemicals and impact resistant (plastic) face shields

Welder’s shields or helmets with specified cover filter plates and lens.

#### **SAFETY GLASS PRESCRIPTION LENS AND SPORT GLASSES ACCEPTABLE SUBSTITUTE FOR PROPER, REQUIRED INDUSTRIAL SAFETY EYE PROTECTION**

Comfort and fit are very important in the selection of safety eyewear. Lens coatings, venting or fittings may be needed to prevent fogging or to fit with regular prescription eyeglasses.

Contact lens should **NOT** be worn at the work-site. Contact lens may trap or absorb particles or gases causing eye irritation or blindness. Hard contact lens may break into the eye when hit and cause severe damage.

Basic eye protection should be worn with face shields. **FACE SHIELDS** alone often are not enough to fully protect the eyes from work hazards. When eye and face protection are required, advice from the O.H. & S office.

Material Safety Data Sheet (MSDS) or your supplier will help in your selection.

For more information, look at:

Alberta’s O.H. & S. Statute and Regulations

CSA Standard “Industrial Eye and Face Protectors” Z94.3-M1982

Cont.....



## **EYE AND FACE PROTECTION**

### **Personal Protective Equipment**

#### **Part 6 (5)**

#### **ALWAYS**

- Ensure your eye protection fits properly (close to the face).
- Clean safety glasses daily, more often if needed.
- Store safety glasses in a safe, clean, dry place when not in use.
- Replace pitted, scratched, bent and poorly fitted PPE (damaged eye / face protection interferes with vision and will not provide the protection it was designed to deliver).

#### **NEVER**

- Modify eye / face protection.
- Use eye / face protection which does not have a CSA certification (CSA stamp for safety glasses is usually on the frame inside the temple near the hinges of the glasses).

#### **EYE PROTECTION FOR WELDERS**

- Welders and welders' helpers should wear the prescribed equipment. Anyone else working the area should also wear eye protection where there is a chance they could be exposed to a flash.

### **General Safety Regulations**

Part 18 – Section 228(1 – 3)

Part 18 – Section 229 (1-3), 230, 231

Personal Protective Equipment

Eye Protection



## HEAD PROTECTION

### Personal Protective Equipment Part 6 (6)

#### GENERAL INFORMATION

Safety headgear is designed to protect the head from impact from falling objects, bumps, splashes from chemicals or harmful substances, and contact with energized objects and equipment.

The recommended type of protective headgear is the Class B hard hat, which has the required “dielectric strength”. There are many designs but they all must meet the CSA requirements for Class B industrial head protection.

**Most head protection is made up of two parts:**

- The shell (light and rigid to deflect blows).
- The suspension (to absorb and distribute the energy of the blow).

Both parts of the headgear must be compatible and maintained according to manufacturer’s instructions. If attachments are used with headgear, they must be designed specifically for use with the specific headgear used. Bump caps are not considered a helmet. In Alberta they can only be used when the only hazard is where a worker might strike his / her head against a stationary object.

#### INSPECTIONS AND MAINTENANCE

Proper care is required for headgear to perform efficiently. The service life is affected by many factors including temperature, chemicals, sunlight and ultraviolet radiation (welding). The usual maintenance for headgear is simply washing with a mild detergent and rinsing thoroughly.

#### ALWAYS

- Replace headgear that is pitted, holed, cracked or brittle.
- Replace headgear that has been subjected to a blow even though damage cannot be seen.
- Remove from service any headgear if its serviceability is in doubt.
- Replace headgear and components according to manufacturer’s instructions.
- Replace expired hardhats.
- Consult O.H. & S. or your supplier for information on headgear.

#### NEVER

- Drill, remove peaks, and alter the shell or suspension in any way.
- Use solvents or paints on the shells (makes shells “break down”).
- Put chinstraps over the brims of Class B headgear.
- Use any liner that contains metal or conductive material.
- Carry anything in the hard hat while wearing the hardhat.

Refer to Occupational Health and Safety Act General Safety Amendment Regulations 34 / 95.



# Code of Practice for the Use of Respiratory Protective Equipment

## Part 6 (7)

Milepost will minimize the hazards through:

1. - Engineering controls.

Engineering controls include:

- providing local exhaust ventilation
  - adding clean air to oxygen-deficient spaces
  - enclosing the process that is producing the airborne contaminant
2. - Administrative controls to reduce exposure to airborne hazards.

Administrative controls include:

- implementing safe-work procedures
- scheduling job rotation
- training

3. – Personal Protective Equipment

Personal Protective Equipment consists of:

- ½ mask respirators with P100 filters for welding process, nuisance level organic vapour relief.
- Full face piece respirators with filters appropriate for paint fumes
- All respiratory protective equipment must meet the NIOSH standards and be selected in accordance with CSA Standard Z94.4-02 “Selection and Care of Respirators”
- Refer to OH&S guide Table 1 and Table 2
- Refer to the MSDS sheets for further information on respiratory protective requirements

Workers that may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits must wear respiratory protective equipment.

Workers requiring respiratory protective equipment will be fit tested by a competent person.

Where the efficiency of respiratory protective equipment depends on a facial seal, the wearer must be clean shaven where the respirator seals to the skin of the wearer’s face.

Only authorized and trained employees may use respirators. Those employees may only use the respirator they have been trained on and properly fit tested to use.

If respiratory protective equipment is used, Milepost will provide the appropriate respiratory equipment. The equipment shall be maintained in a clean sanitary condition and stored in a manner that prevents contamination.

Respiratory protective equipment should be cleaned after each use. Employee’s assigned respirators will be responsible for their sanitation, and proper storage.

Cartridges and filters must be replaced as per the manufacturer’s instructions or earlier if smell, taste, or irritation from contamination is detected or if there is resistance to breathing.

Respiratory protective equipment shall be serviced in accordance with the manufacturer’s specifications.

**Milepost does not permit its workers to work or enter into any worksite that breathing conditions are or may become immediately dangerous to life or health.**



## RESPIRATORY PROTECTION EQUIPMENT

### Personal Protective Equipment Part 6 (8)

A mechanical ventilation system that is sufficient and suitable to protect the workers against inhalation of a contaminant and to prevent accumulation of the contaminant will be utilized and will ensure that the mechanical ventilation system is maintained and properly used, where any work, activity, or process gives off:

- (a) A dust, fume, gas, mist, aerosol, or vapour or other contaminant of a kind and quantity that is likely to be hazardous to workers; or
- (b) Where a worker is likely to be exposed to dust, fumes, gas, mist, aerosol, or vapour or any airborne contaminant that may be present in any amounts that are harmful or offensive to the worker, approved respiratory protective device will be provided for use by the worker that provides suitable and adequate protection to the worker from one or more airborne contaminants.

The atmospheric contaminants that can be found on any oil and gas worksite can range from very toxic Hydrogen Sulphide to irritating nuisance particulate. **When working on site, the client is to determine if respiratory protection equipment is required and will perform an initial evaluation of the worksite, and provide necessary PPE.** Milepost will abide by clients Safe Work Procedure.

**Milepost Manufacturing Ltd. does not perform work where IDLH conditions exist.**

If after necessary testing, it is determined that a worker may be exposed to airborne contaminants or a mixture of airborne contaminants in a concentration exceeding their occupational limits, Milepost will ensure the availability of the appropriate respiratory protective equipment. A worker must use the appropriate respiratory equipment provided.

The respiratory protective device must be regularly cleaned and maintained in an approved manner; and ensure that the respiratory protective device is kept, when not in use, in a convenient and sanitary location in which the respiratory protective device is not exposed to extremes of temperature or to any contaminant that may inactivate the respiratory protective device.

The face piece must be the proper size and where a tight fit is essential to the proper functioning of the respiratory protective device, the worker must be fit-tested to ensure an effective seal to the facial skin of the worker. Fit-testing shall be performed by a competent person in an approved manner.

If a respiratory protective device is provided to a worker, training by a competent person in the proper testing, maintenance, use, and cleaning of the respiratory protective device and in its limitations.

In making a determination of what equipment to use, several factors are to be considered:

- The nature and exposure circumstances of any contaminants or biohazardous material
- The concentration levels of any airborne contaminants
- The duration of the workers exposure
- The toxicity of the contaminants
- The concentration of oxygen
- The warning properties of the contaminants
- The need for emergency escape

If client testing determines that breathing conditions at the work site are immediately dangerous to life or health Milepost workers will promptly evacuate site.

The following chart lists some of the common types of contaminants found on worksites and the accepted respiratory protection equipment for Milepost Manufacturing Ltd. employees. Additional respiratory equipment may be required depending on the specific situation and type of airborne contaminants.





## RESPIRATORY PROTECTION EQUIPMENT

### Personal Protective Equipment Part 6 (8)

#### **AIRBORNE CONTAMINANT RESPIRATORS**

Dust, paint fumes, welding fumes...  
Half or full-face mask with a particulate filter, suitable for that type of dust.  
Hydrogen Sulphide,  
Positive pressure SCBA (Self Contained Breathing Apparatus)

#### **COMBINATION RESPIRATORS**

This type of APR combines separate chemical and mechanical filters. This allows for the change of the different filters when one of them becomes plugged or exhausted before the other filter (usually the dust filter plugs up before the chemical filter). **This type of respirator is suitable for most spray painting and welding.**

##### **For more information**

- Material Safety Data Sheet (MSDS).
- O.H. & S Regulations.
- The local O.H. & S. office.
- The safety equipment supplier.

##### **For more information**

- Alberta O.H. & S Statue and Regulations.
- CSA Standards "Compressed Breather Air" Z180.1-M1978.
- "Selection, Care and Use of Respirators" Z94-4-M1982.
- Chemical Hazards Regulation (Alberta Reg. 8/82).

#### **ALWAYS**

- Train workers very carefully in the APR's use, care and limitations.
- Ensure that respirators are properly cleaned and disinfected after each shift, according to the manufacturer's instructions.
- Dispose of exhausted cartridges and masks in sealed bags or containers.
- Keep new, unused filters separate from old, used filters.
- Monitor APR use; they are useless just hung around the workers neck.
- Replace filters when breathing becomes difficult.

#### **NEVER**

- Use for protection against materials, which are toxic in small amounts.
- Use with materials that are highly irritating to the eyes.
- Use with gases that can't be detected by odour or throat or nose irritation.
- Use with gases not effectively halted by chemical cartridges regardless of concentration (read the cartridge label).
- Use respirators or masks if the serviceability is in doubt.
- Use APRs where oxygen content in the air is less than 16% or 18 Kilopascals (partial pressure or greater).



## **RESPIRATORY PROTECTION EQUIPMENT**

Personal Protective Equipment  
Part 6 (8)

### General Safety Regulations

|                             |   |
|-----------------------------|---|
| Part 18, Section 244(1 4)   | Respiratory Protective Equipment              |
| Part 18, Section 228 1 – 3) | General Provisions                            |
| Part 18, Section 244(1)     | Determination of Need for Equipment           |
| Part 15, Section 247        | Selection of Respiratory Protective Equipment |
| Part 18, Section 246        | Approval of Equipment                         |
| Part 18, Section 245        | Codes of Practice                             |

01/2018

## Personal Protective Equipment Checks

(to be done monthly or more often when required)

(check off and note if replace or repaired)

[illegible]



## **MAINTENANCE PROGRAM POLICY**

Maintenance  
Part 7 (00A)

A list of all machines, vehicles and equipment requiring maintenance or inspection shall be properly maintained to ensure that manufacturers and legislated requirements are being met.

Maintenance records must be available for the operator or any other person involved with the inspection and maintenance of the machines, vehicles or equipment.

Supervisors shall ensure that qualified personnel according to established schedules carry out all preventative maintenance and that those records are kept on file.

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

All defective tools will be tagged and taken out of service for repair or must be discarded.

Tire servicing – inspection, disassembly and reassembly of tire and wheel assemblies done by a trained professional.

**The safety information in this policy does not take precedence over O.H. & S. Regulations.**

**All employees should be familiar with the O.H. & S. Act and Regulations**

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018



**7**

# MAINTENANCE PROGRAM



## BRAKE ADJUSTMENT

Maintenance  
Part 7 (.001)

7-7/32" pots

Maximum stroke brakes should be adjusted at is 1½" (Figure 33, Page 50).

There should not be more than ½" variance from one side to the other on drive axles and not more than ¼" on steering axles. (Page 51, Step #8).

Pressure drop on cab gauges while holding brakes on at 100 psi. and truck shut off should not be more than 4 psi. for truck only and not more than 6 psi. for truck and trailer in 2 minutes (Page 55, Step #5).

Documented from Air Brake Manual, Alberta Transportation and Utilities, Copyright 1995.



Maintenance  
Part 7 (002)

## **RECOMMENDED WHEEL TORQUES**

|                 |   |
|-----------------|---|
| <b>Budds</b>    | <b>400 to 450 ft. lbs.</b><br><b>1-5/16" socket</b> |
| <b>Dayton's</b> | <b>250 to 275 ft. lbs.</b><br><b>1-1/4" socket</b>  |

## **RECOMMENDED TIRE PRESSURE**

|                                    |                 |
|------------------------------------|-----------------|
| <b>Front</b>                       | <b>100 psi.</b> |
| <b>Rear</b>                        | <b>100 psi.</b> |
| <b>Trailer</b>                     | <b>100 psi.</b> |
| <b>Michelin Steering - 95 psi.</b> |                 |



Maintenance  
Part 7 (.003)

**Under Hood**

- ↑ Hood Hinges, Pins & Mount
- ↑ Coolant Level & Strength (-45C  
50/50 mix)
- ↑ Hoses and Clamps (secure, wear)
- ↑ Drive Belts (tension & condition)
- ↑ Alternator (mount & wiring)
- ↑ Water Pump and Fan Idlers
- ↑ Steering Box (leaks, security, U-Joints)
- ↑ Steering Pump (leaks, hoses & oil level)
- ↑ Fuel Pump (seals, leaks)
- ↑ Starter (mounting & wiring)
- ↑ Air Cleaner Condition:  
Good ↑ Fair ↑ Poor ↑
- ↑ Engine Leaks (oil, fuel coolant, and air)
- ↑ Engine Oil & Filter (change @ 200-250 hrs. Max.

**Greasing**

- ↑ Supports Front Springs (pins, shackle hangers)
- ↑ Front Brakes (slack adjusters, S-cams)
- ↑ Steering Mechanisms
- ↑ Kingpins (loaded & unloaded)
- ↑ Main Driveline (U-joints & slip Joint)
- ↑ Rear Springs (pins)
- ↑ Walking Beams (if applicable)
- ↑ Steering Column
- ↑ Clutch Pedal Pivot Block
- ↑ Clutch / Tranny Cross-Shafts (2)
- ↑ Clutch Release Bearing (one shot / wk)
- ↑ PTO Jackshaft (if applicable: regular daily greasing)





## TRUCK LOADING CHECKLIST

JOB NO. \_\_\_\_\_

|                   | QUANTITY | LOADED ON TRUCK |
|-------------------|----------|-----------------|
| DIKES             | _____    | _____           |
| LINER ATTACHMENTS | _____    | _____           |
| GASKET            | _____    | _____           |
| POSTS             | _____    | _____           |
| CAPS              | _____    | _____           |
| DIKE BOLTS        | _____    | _____           |
| LINER BOLTS       | _____    | _____           |
| STUDS AND NUTS    | _____    | _____           |
| SIKAFLEX          | _____    | _____           |
| BOOTS             | _____    | _____           |
| HOSE CLAMPS       | _____    | _____           |
| GEOTEXTILE        | _____    | _____           |
| LINER             | _____    | _____           |
| SLEEPERS          | _____    | _____           |
| KNEE BRACES       | _____    | _____           |
| WINDOW PLATES     | _____    | _____           |



## Vehicle Maintenance Checklist

### Maintenance Part 7 (.005)

Date: \_\_\_\_\_

Serviced By: \_\_\_\_\_

Check Items:           √ - replaced    N/A – Not applicable

#### GREASE:

- 1 Warm engine up to operating temperature
- 1 Change engine oil and install sticker in cab.
- 1 Change full-flow filter
- 1 Change by-pass filter (lubrifier)
- 1 Check brakes for wear and adjustment – adjust as necessary
- 1 Check fuel filters
- 1 Check coolant levels
- 1 Check antifreeze point with a hydrometer – record
- 1 Check water filter (if so equipped)
- 1 Check air filter condition
- 1 Check air compressor filter
- 1 Check air piping and mountings
- 1 Check all belts and adjust tension
- 1 Check power steering oil level, add as necessary
- 1 Check oil levels in front wheels, add as necessary
- 1 Check oil levels in transmission, add as necessary
- 1 Check oil level in rear axle(s), add as necessary
- 1 Check wheel nuts for tightness, watch for wheel creep
- 1 Check tire air pressure
- 1 Check clutch adjustment
- 1 Check for broken springs
- 1 Run engine and check for leaks
- 1 Check battery fluid levels, terminals and hold downs – clean and tighten as necessary.
- 1 Check brake fluid levels
- 1 Check glad hand rubbers, replace as necessary
- 1 Check mud flaps
- 1 Fill windshield wiper reservoir
- 1 Check 5<sup>th</sup> wheel for wear and adjustment
- 1 Check airlines for cracks, leaks and fatigue
- 1 Check lights for proper operation:
  - 1 Headlights
  - 1 Clearance Lights
  - 1 Tail Lights
  - 1 Dash Lights
  - 1 Interior Lights
- 1 Front springs, shackles and pins
- 1 Drag link joints
- 1 King Pins



✓ Tie rod ends  
✓ Clutch release shaft  
✓ Propeller shaft slip joint  
✓ Rear spring radius rod pins  
✓ Brake cams  
✓ Brake Slack adjuster  
✓ Universal Joints  
✓ Steering  
✓ Steering Columns slip joint & universal at steering box  
✓ Clutch release bearing  
✓ Rear Spring ends  
✓ All Clevis pins & control joints  
✓ 5<sup>th</sup> Wheel  
✓ Lubricate doors

✓ Headlights      ✓ Clearance Lights      ✓ Tail Lights

✓ Dash Lights      ✓ Interior Lights

|                                      |                               |
|--------------------------------------|-------------------------------|
| ✓ Front springs, shackles and pins   | ✓ Brake Slack adjuster        |
| ✓ Drag link joints                   | ✓ Universal Joints            |
| ✓ King Pins                          | ✓ Steering                    |
| ✓ Tie rod ends                       | ✓ Steering Columns slip joint |
| ✓ Universal at steering box          | ✓ 5 <sup>th</sup> Wheel       |
| ✓ Clutch release shaft               | ✓ Clutch release bearing      |
| ✓ Rear Spring ends                   | ✓ Propeller shaft slip joint  |
| ✓ All Clevis pins and control joints | ✓ Rear Spring radius rod pins |
| ✓ Brake cams                         |                               |

REMARKS \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Truck Unit: # \_\_\_\_\_ Hour Meter reading: \_\_\_\_\_ hrs.

For week ending: \_\_\_\_\_ Odometer Reading: \_\_\_\_\_ km.



# 8

# Training and Safety Meetings



## **SAFETY TRAINING POLICY**

Training and Safety Meetings  
Part 8 (00A)

### **PURPOSE**

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

### **POLICY**

Milepost Manufacturing Ltd. shall ensure that a worker is trained in all matters that are necessary to protect the health and safety of the worker when the worker begins work or is moved from one work activity or worksite to another that differs with respect to hazards, facilities or procedures.

Milepost Manufacturing Ltd. shall ensure that no worker is permitted to perform work unless the worker has been trained, and has sufficient experience, to perform the work safely and in compliance with the OHS Act and Regulations or is under close and competent supervision. Training may be performed in-house or by a 3rd Party.

Milepost Manufacturing Ltd. will provide and the employees will participate in all safety and related training that is necessary to minimize losses of human and physical resources of the company.

It is the responsibility of the Subcontractors to ensure Milepost Manufacturing Ltd. that their employees are properly trained prior to commencing work.

In addition, safety meetings involving all employees will be held on a regular basis.

### **This training will include, but will not be limited to:**

- New hire safety orientations.
- Specialized safety and related training.
- Hazard Assessment and Control
- Job-specific training.
- Task and trade – specific training and certification.
- Safety training for management and supervisors.

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018



## TRAINING REQUIREMENTS

### Training and Safety Meetings Part 8 (1)

As a requirement of current Alberta regulations, employers are required to provide training for workers who may be exposed to a harmful environment at a work site. Milepost Manufacturing Ltd. employees will require training in the following programs:

| TRAINING PROGRAM   | FREQUENCY OF TRAINING                    |
|--|--|
| W.H.M.I.S.<br>(Workplace Hazardous Material Information System). | As Required<br>Update as per Regulations |
| Fire Extinguisher, Use and Maintenance.                          | As Required                              |
| Hearing Conservation.  | As Required                              |
| Emergency Response Procedure.                                    | Semi-annual                              |
| Hazard Assessment and Control                                    | Ongoing                                  |
| Safe Work Practices and Safe Job Procedures                      | Ongoing                                  |
| Incident / Accident Reporting.                                   | As Required                              |
| Back Injury Prevention Program/Training                          | As Required                              |
| H2S Alive (field crew)   | As required                              |
| Standard / Emergency First Aid.                                  | 3 years                                  |
| Other training specific to job                                   | As required                              |

When the term "As Required" is used to determine the frequency of re-training, it is assumed that the worker will have or, will receive the initial training as he / she is hired.

The management will determine the need for any subsequent training.

Workers will be informed to the nature and degree of effects to their health or safety of any chemical or biological substance to which they are exposed in the course of their work. Also adequate training will be provided in safe work practices and safe job procedures and the proper use of any Personal Protective Equipment necessary.

All practicable steps to ensure that no worker's personal exposure exceeds the contamination limit will be taken.

Where it is not reasonable practicable to reduce workers personal exposure to a chemical or biological substance approved respiratory protective equipment will be provided and the worker must use the protective equipment provided. Where there is a possibility of a spill or leak, workers will be trained in the emergency procedures.

Cont....



## TRAINING REQUIREMENTS

### Training and Safety Meetings Part 8 (1)

Additional on-site training may be required to complete the training requirements.

A training record will be maintained on each employee. The records will be checked regularly to determine the requirement for recertification on expired tickets.

The “Initial Employee Indoctrination” training can be the most important training program for both the employee and the employer. This training outlines the safety policies and practices to the employee so they will be more aware of his / her personal responsibilities concerning his / her specific job and the company in general. The supervisor will be able to gauge the employee’s attitude to safety and identify any limitations that could affect the employee’s ability to perform adequately within the existing structure of the company. Milepost Manufacturing Ltd. shall ensure that all employees are provided with appropriate orientation, health and safety training, and job-specific training, pertinent to their duties.

A competent person (supervisor, lead hand ext.) must verify that an employee is competent to perform their roles and responsibilities before being allowed to work independently.

Unless special arrangements are made, Milepost Manufacturing Ltd. **will not be required to provide safety training for sub-contractors.** All contractors have the responsibility to ensure that they and their employees have received adequate training acceptable to Milepost Manufacturing Ltd. standards before commencing a task.

See also Part 2(6) “Milepost Manufacturing Ltd. Job Competency Policy”

## JOB OBSERVATIONS

Job observations are used to identify unsafe behaviors. They provide direct, measurable information on employees' work practices. Job observations will not be used to discipline employees. They are intended to help employees identify the safest ways to perform their work.

Employees will be provided training on job observations. Training must include how to conduct an observation, and how to provide effective feedback on observed behaviors.

Upon completion of an observation, the observer shall have a discussion with the employee he/she observed. The observer shall review the results with the observed employee, reinforce safe behaviors observed, describe unsafe behaviors observed, obtain feedback from the employee on why the work was performed that way, and emphasize that the purpose of observations is help employees perform their jobs safely, not to punish or discipline.

Job observations must be documented on an observation form or checklist. Records of observations shall be kept.



## **SAFETY MEETINGS**

### **Training and Safety Meetings Part 8 (2)**

Safety meetings are important forums where information and ideas can be transferred from management to the employees and vice versa. The singular objective at all safety meetings should be to enhance the safety awareness of the participants. There are two (2) types of safety meetings currently in use at Milepost Manufacturing Ltd.

#### **Scheduled Safety Meetings, and Pre-job Tailgate Meetings**

General safety meetings will be held every month to allow employees to work together to identify and solve health and safety problems on the worksite. Depending on company operations or unforeseen circumstances, other meetings may be held.

Tool box meetings will be held daily, before work starts. All workers attending the tool box meetings must sign the attendance sheet. As work changes throughout the day, reassess hazards and any corrective action that may be required to eliminate or reduce the hazard to an acceptable level. You need to report who the corrective actions were assigned too, what actions were actually taken, and when the corrective actions were completed. The documentation for a corrective action provides evidence that the problem was recognised, corrected, and proper controls installed to make sure that it does not happen again.

These meetings will be held at a convenient time and location to ensure that the majority of employees can attend.

The Safety Manager will chair the safety meetings. All employees are encouraged to participate at these meetings.

#### **Pre-Job Tail Gate Meeting**

Before starting any job involving more than one employee and, where there is a reasonable possibility that, employees could be injured, a pre-job tailgate meeting will be held. The senior Milepost Manufacturing Ltd. representative on the work site will direct this meeting.

#### **The topics included in the pre-job tailgate meeting include:**

- Description of the job including any possible interferences (work permit).
- Expected time (duration of the job).
- Specific employee's responsibilities during normal operations and during an emergency (perform a head count).
- All workers performing work, must sign on to the hazard assessment.
- Availability and location of site and personal protective equipment.
- Location of a "safe Briefing Area".
- Emergency response.
- Hazards will be identified and eliminated or appropriate controls put in place if unable to eliminate them.
- As tasks, equipment, site, weather conditions change, hazards assessments will be reassessed.





## Driver Files

### Part 8 (3)

Milepost Manufacturing Ltd. will keep a driver record for every person authorized to operate company vehicles. Following are some of the typical forms which may be required:

- Application for employment/drivers resume.
- Request for driver's abstract.
- Driver's abstract.
- Physical examination and fitness report.
- Results of drug test.
- Previous employer reference check.
- Road test report.
- Record of convictions of safety laws
- Records of fines
- Records of all collisions required to be reported
- New employee orientation and training verification forms.
- Records of all training related to the operation of a commercial vehicle and compliance laws.
- Physical examination consent form.
- Photocopy of driver's license.
- Certificate of TDG Training (as required)
- Accident reports.
- Injury reports.

The following will require up-dates every year:

- √ Driver's abstract.
- √ Drug test.

The following will be required every three year

- √ Physical examination.
- √ WHMIS Training.

### Driver Record Retention:

Milepost Manufacturing Ltd. will keep all driver files at the main office. Files will be retained for 5 years from the date they are created or received, and will be available for inspection during regular business hours.

### Driver Training:

Milepost Manufacturing Ltd. will ensure all drivers have met training requirements prior to operating company vehicles.

Drivers will receive training in the following subjects as applicable:

- Company safety program
- Safe vehicle operation
- Company maintenance program
- Traffic Safety Act and relevant transportation safety laws, hours of service, trip inspections, weights and dimensions, cargo securement, and other regulations applicable.

Drivers will receive training through in house training programs and external training facilities.

## DRIVER EVALUATION

| <b>Carrier Name:</b>                          |  |                        |      | <b>Current Class of Operator's Licence</b>       |      |      |                        |   |
|---|--|------------------------|------|--|------|------|------------------------|---|
|   |  |                        |      | 1  | 2    | 3    | 4                      | 5 |
| <b>Driver Name:</b>                           |  | <b>Date:</b>           |      | <b>Signature of Driver:</b>                      |      |      | <b>Date:</b>           |   |
| DRIVER ACTIONS                                |  | Performance Assessment |      | DRIVER ACTIONS                                   |      |      | Performance Assessment |   |
|   |  | Good                   | Fair | Good   | Fair | Poor |                        |   |
| <b>A. CONTROLS</b>                            |  |                        |      | <b>E. TRAFFIC LIGHTS / SIGNS</b>                 |      |      |                        |   |
| 1. Knowledge and/or use of equipment          |  |                        |      | 1. Fails to anticipate / observe                 |      |      |                        |   |
| 2. One-handed steering – hand position        |  |                        |      | 2. Judgment – green / amber / red                |      |      |                        |   |
| 3. Steering Control – wanders / recovery      |  |                        |      | 3. Judgment – stop / yield / other               |      |      |                        |   |
| 4. Shifts too soon / late / lugs              |  |                        |      |  |      |      |                        |   |
| 5. Improper use of gears / grinds             |  |                        |      | <b>F. RIGHT-OF-WAY</b>                           |      |      |                        |   |
| 6. Improper use of clutch / stalls/ coasts    |  |                        |      | 1. Uncertain / hesitant                          |      |      |                        |   |
| 7. Improper use of brake / park brake         |  |                        |      | 2. Fails to assume own right of way              |      |      |                        |   |
| 8. Improper use of accelerator                |  |                        |      | 3. Aggressive / Judgment                         |      |      |                        |   |
| 9. Signals too soon / late                    |  |                        |      |  |      |      |                        |   |
| 10. Signals – improper / not cancelled/none   |  |                        |      | <b>G. SPEED</b>                                  |      |      |                        |   |
|   |  |                        |      | 1. Too fast for conditions                       |      |      |                        |   |
|   |  |                        |      | 2. Too slow for conditions                       |      |      |                        |   |
| <b>B. PARKING / STARTING / BACKING</b>        |  |                        |      | <b>H. BACKUP / TURN AROUND</b>                   |      |      |                        |   |
| 1. Fails to set brake / gear                  |  |                        |      | 1. Poor observation – before / during            |      |      |                        |   |
| 2. Observation – backing / starting           |  |                        |      | 2. Judgment of distance / position               |      |      |                        |   |
| 3. Judgment – vehicle / wheels / angle        |  |                        |      |  |      |      |                        |   |
| 5. Rolls back                                 |  |                        |      | <b>I. ROAD TEST DISQUALIFICATION</b>             |      |      |                        |   |
| 6. Unsure / too slow                          |  |                        |      | 1. Overall poor performance                      |      |      |                        |   |
|   |  |                        |      | 2. Right of way violation – vehicle / pedestrian |      |      |                        |   |
| <b>C. LANE DRIVING / CHANGING / POSITION</b>  |  |                        |      | 3. Traffic light violation                       |      |      |                        |   |
| 1. Fails to check mirror                      |  |                        |      | 4. Stop sign violation                           |      |      |                        |   |
| 2. Fails to check blind spot / late           |  |                        |      | 5. Speeding violation                            |      |      |                        |   |
| 3. Uncertain / hesitant                       |  |                        |      | 6. Other violation                               |      |      |                        |   |
| 4. Road position – straddles lane             |  |                        |      | 7. Climbs over curb                              |      |      |                        |   |
| 5. Too close / far – stop / pass / follow     |  |                        |      | 8. Lacks caution at uncontrolled intersection    |      |      |                        |   |
| 6. Improper lane change / late / slow         |  |                        |      | 9. Obstructs traffic                             |      |      |                        |   |
| 7. Fails to observe signs / conditions        |  |                        |      | 10. Unable to perform skill maneuver             |      |      |                        |   |
|   |  |                        |      | 11. Hits vehicle / object                        |      |      |                        |   |
| <b>D. INTERSECTIONS / TURNS / RR</b>          |  |                        |      | 12. Lacks skill and control                      |      |      |                        |   |
| 1. Block crosswalk / intersection / stop line |  |                        |      | 13. Unsafe action                                |      |      |                        |   |
| 2. Stops too far back                         |  |                        |      | 14. Trip inspection failure                      |      |      |                        |   |
| 3. Unnecessary stop                           |  |                        |      | <b>J. GENERAL DRIVER KNOWLEDGE</b>               |      |      |                        |   |
| 4. Fails to leave parking lot                 |  |                        |      | 1. Hours of Service                              |      |      |                        |   |
| 5. Fails to observe conditions / late         |  |                        |      | 2. Trip Inspections                              |      |      |                        |   |
| 6. Left turn – cuts corner / turns wide       |  |                        |      | 3. Cargo Securement                              |      |      |                        |   |
| 7. Left turn – wrong lane – before / after    |  |                        |      | 4. Weights and Dimensions                        |      |      |                        |   |
| 8. Right turn – cuts corner / turns wide      |  |                        |      |  |      |      |                        |   |
| 9. Right turn – wrong lane – before / after   |  |                        |      |  |      |      |                        |   |
| 10. Incorrect position – vehicle / wheels     |  |                        |      |  |      |      |                        |   |
| 11. Too fast – before / during                |  |                        |      |  |      |      |                        |   |
| 12. Too slow – before / during                |  |                        |      |  |      |      |                        |   |
| <b>TEST ADMINISTRATION INFORMATION:</b>       |  |                        |      | <b>COMMENTS:</b>                                 |      |      |                        |   |
| <b>Authorized to drive:</b>                   |  | <b>Yes:</b>            |      | <b>No:</b>                                       |      |      |                        |   |
| <b>Safety Officer's Name:</b>                 |  | <b>Signature:</b>      |      |  |      |      |                        |   |

## Employee Training Summary

[illegible]

## Fire Extinguisher Instruction & Training

\*We the undersigned have participated in emergency evacuation drills and procedures on the noted dates.

\* Review of emergency procedures from safety manual was included in this training.

[illegible]



# MOBILE EQUIPMENT OPERATION BASIC OPERATOR CERTIFICATION

1. Have you reviewed the operator's manual: Yes\_\_\_\_No\_\_\_\_\_.
2. List some of the Hazards that may be involved with the operation of the loader and some controls to eliminate or reduce the hazard:
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
3. When entering or exiting the loader you must use 3 pt. contact: True\_\_\_\_ False\_\_\_\_\_
4. Checks to be performed prior to start-up:
  - Fluid levels \_\_\_\_
  - Park brake engaged \_\_\_\_
  - Tires (visual) \_\_\_\_
  - Area clear of personnel and obstructions \_\_\_\_
  - All of the above \_\_\_\_
5. Checks to be performed after start-up:
  - Gauges \_\_\_\_
  - Brakes \_\_\_\_
  - Travel path clear \_\_\_\_
  - All of the above \_\_\_\_
6. Are you familiar with all gauges and controls? Yes \_\_\_\_ No \_\_\_\_
7. A machine should be started or parked with the park brake: On \_\_\_\_ Off \_\_\_\_
8. When working on an incline, the load should be pointing: Uphill \_\_\_\_ Downhill \_\_\_\_
9. Which direction should you be travelling if your load is obstruction your forward vision? Forward \_\_\_\_  
Reverse \_\_\_\_
10. In what position should you be carrying your load when travelling? High as possible \_\_\_\_  
Low as possible \_\_\_\_
11. Avoid tight turns with a heavy load when operating a wheel loader? Yes \_\_\_\_ No \_\_\_\_
12. The speed limit in the Milepost yard is? 10km\_\_\_\_15km\_\_\_\_20km\_\_\_\_\_

cont.....



## Basic operator certification – p.2

13. You should be wearing a seat belt at all times when operating mobile equipment:  
True \_\_\_\_ False \_\_\_\_
14. In the Cat loader, what should you do if the warning light and buzzer come on while operating? Shut off when job is done \_\_\_\_ Shut off immediately \_\_\_\_ Ignore warning \_\_\_\_
15. How do you check if quick-attach lock pins are engaged? Slight down pressure on attachment \_\_\_\_  
Visual check \_\_\_\_ Either of the above \_\_\_\_
16. How should forks be spaced when picking up a load? Doesn't matter \_\_\_\_ Close together \_\_\_\_ As far apart as possible \_\_\_\_
17. Is it important to know the weight of your load? Yes \_\_\_\_ No \_\_\_\_
18. Should you know the rated load capacity of your machine? Yes \_\_\_\_ No \_\_\_\_
19. What should be the position of the transmission central lever when the machine is parked?  
Forward \_\_\_\_ Neutral \_\_\_\_ Reverse \_\_\_\_
20. Should you travel with anyone on a personnel platform mounted on the forks?  
Yes \_\_\_\_ No \_\_\_\_
21. Where should the operator be positioned whenever someone is on the personnel platform?  
Under the platform \_\_\_\_ At the controls \_\_\_\_ Gone for coffee \_\_\_\_
22. It is the operator's responsibility to immediately report any defects in the machine they are operating.  
True \_\_\_\_ False \_\_\_\_
23. Should the operator ever leave a forklift or loader unattended with the forks or boom elevated? Yes \_\_\_\_  
No \_\_\_\_
24. When backing, if you are not 100% sure that the way is clear...  
\_\_\_\_ STOP and exit machine and check area  
\_\_\_\_ Use a spotter to direct you  
\_\_\_\_ Proceed with caution
25. When carrying a load with the jib always use a spotter with a tag line: True\_\_\_\_False\_\_\_\_
26. Operators do not need to be familiar with standard hand signals. It is the responsibility of the Spotter to know what to do. True\_\_\_\_False\_\_\_\_
27. If at any time an operator losses sight of their Spotter during a lift or move they must stop until they have regained eye contact. True\_\_\_\_False\_\_\_\_



## TRAINING PROCEDURES FOR WHEEL LOADER OPERATION

Milepost will ensure that workers operating the **Wheel Loader** are trained in its use and operation by the following measures:

Workers using the **Wheel Loader** will complete/participate in:

- Review of the Manufacturers Instruction Manual to include:
  - Selection of Appropriate Equipment
  - Limitations of the Equipment
  - Pre-Use Inspections
  - Use of the Equipment
  - Skills Required According to Manufacturers Specification
  - Maintenance Requirements
  - Loading and Unloading of the Machine
- Hazard Identification and Control of Hazards
- Review of the Safe Job Procedure for **Loader Operation Part 4 (47)** and **Loader Pre-Operation Inspection Checklist Part 4 (48)** and **Loading Front End Loaders Onto Trailer Part 4 (50)**
- New workers will work under the supervision of an experienced, competent worker that will be able to aid in training the new worker until worker has reached a competent level and will be allowed to operate the machine without supervision.
- Worker must demonstrate his/her competency in the operation of the **Wheel Loader** to Shop Foreman.
- Written/Oral exam on the safe use and operation of the **Wheel Loader** must be completed prior to worker being designated as a competent operator of the machine.
- The worker will be required to sign off, verifying that he/she understands the hazards associated with the operation of the machine and will operate the machine in accordance with the manufacturer's instruction manual and Milepost safe work practices and job procedures for the operation of the machine.
- Exposure to Harmful Substances (if applicable) and Procedures developed to minimize exposure to any harmful substance. If any harmful substance is present, the worker will be trained in the safety procedures associated with the substance and will be informed of any health hazards associated with exposure to the harmful substance. (WHIMIS)

# Mock Drill & Evacuation Training Sheet

\*We the undersigned have participated in emergency evacuation drills and procedures on the noted dates.

[illegible]





## Safety Committee Meeting

Date: \_\_\_\_\_ Time: \_\_\_\_\_ A.M./P.M. \_\_\_\_\_

Location: \_\_\_\_\_ Place: \_\_\_\_\_

Chairperson: \_\_\_\_\_

Committee Members:

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Review Last Meeting: \_\_\_\_\_

---

---

---

Corrective Action: \_\_\_\_\_

---

---

Reports: \_\_\_\_\_

---

---

Injuries / Accidents Reviewed: \_\_\_\_\_

---

---

New Business: \_\_\_\_\_

---

---

---

Other Business: \_\_\_\_\_

---

---

Next Meeting

Time: \_\_\_\_\_ Location: \_\_\_\_\_

[illegible]



## SAFETY MEETING AGENDA

Date: \_\_\_\_\_ Location: \_\_\_\_\_

Time: \_\_\_\_\_ Place: \_\_\_\_\_

Chairperson: \_\_\_\_\_

Committee Members: \_\_\_\_\_

---

1. **Call meeting to order.**
2. **Roll Call** (Note those members present and absent)
3. **Agenda** – Adoption of and addition of items
4. **Minutes** – Adopt minutes of the previous meeting as circulated, correcting any errors or omissions.
5. **Matters arising from the minutes** (consideration of unfinished business – i.e., progress reports on outstanding items and corrective actions taken).
6. **Review of regular subcommittees** (report arising from workplace inspections; reports arising from accident investigations/reviews).
7. **Special reports from subcommittees** (if applicable).
8. **New business / concerns** (items for consideration should be itemized),
9. **Training and education** – remarks or presentations by visitors.
10. **Other business.**
11. **Next inspection.**
12. **Next meeting** – time and location.
13. **Adjourn.**

# SAFETY ORIENTATION QUESTIONNAIRE

Name of worker \_\_\_\_\_ Date/Time \_\_\_\_\_  
(Please print)

Project name \_\_\_\_\_

Project location \_\_\_\_\_

Note: Place ✓ by correct response:

1. Hazard identification and control is important to maintain a safe working environment.  
No: ☐ Yes: ☐
2. Working safely is a condition of employment.  
No: ☐ Yes: ☐
3. All injuries, regardless of how minor, must be reported immediately to your supervisor.  
No: ☐ Yes: ☐
4. It is important to maintain good housekeeping in your work area.  
No: ☐ Yes: ☐
5. You observe an unsafe condition on site, should you?  
☐ Wait for the weekly tailgate safety meeting and report it.  
☐ Report it immediately to your supervisor.  
☐ Let someone else worry about it.
6. It is permissible to carry material or equipment up or down any access ladder?  
No: ☐ Yes: ☐
7. Openings that are covered with plywood will have the plywood secured to prevent accidental dislodgement and will be marked with:  
☐ A circle  
☐ A cross  
☐ Letters warning of the opening  
☐ All of the above

8. A trench is 6 feet deep. It is permissible for you to enter the trench to work if it is not cutback or shored?  
No: ☐ Yes: ☐
9. Personal protective equipment (hearing protection, fall protection, eye protection) should be worn whenever:  
☐ Someone else is wearing it  
☐ Your supervisor advises you to wear it  
☐ The potential for personal injury exists
10. When you are working from heights, and guardrails are missing, you must use fall arresting equipment  
No: ☐ Yes: ☐
11. Tools and equipment whose guards are inoperative or missing are okay to use 'just this once'.  
No: ☐ Yes: ☐
12. The Workplace Hazardous Material Information System (WHMIS)/Hazardous Communication System (HAZCOM) designates certain products as controlled products and require them to be labeled. This label is a warning for you the worker. The label tells you the:  
☐ Name of the product  
☐ Hazard symbol  
☐ Risks when you use it  
☐ Personal protective equipment to wear  
☐ First Aid treatment if necessary  
☐ All of the above
13. Material Safety Data Sheets (MSDS) are also required for WHMIS/HAZCOM controlled products. These sheets are readily available for your additional information by asking your supervisor to see them.  
No: ☐ Yes: ☐

Signature of worker: \_\_\_\_\_



## TOOL BOX MEETING

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Number in Crew \_\_\_\_\_

Foreman: \_\_\_\_\_

Attendees: Print Name and Sign

|  |  |
|--|--|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Review Last Meetings \_\_\_\_\_

Topic's Discussed: \_\_\_\_\_

Suggestions Offered: \_\_\_\_\_

Actions to Be Taken: \_\_\_\_\_

Injuries / Accidents Reviewed: \_\_\_\_\_

Supervisor's Remarks: \_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_

Foreman's Signature: \_\_\_\_\_

## ADDITIONAL INFORMATION

[illegible]

## Milepost Manufacturing Ltd.

| Required Training             | Welders                             | Steel Processors                    | Field Crew                          | Drivers                             | Picker Operator                     | Safety                              | Foreman                             |
|-------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| TASK                          |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Milepost Orientation          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Policies and Procedures       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| WHIMIS                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| PPE/fit test/fall arrest etc. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Safe Work Practices           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Safe Job Procedures           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Hazard Assessment             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Hazard Management             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CWB cert/apprenticship        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Overhead crane                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Shop equipment/tools          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Drivers Licence               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Picker Opertator Cert/        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Rigging/Load Securement       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ground Disturbance            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| H2S                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Standard 1st.Aid              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |



## Milepost Manufacturing Ltd.

[illegible]

## Milepost Manufacturing Ltd.

[illegible]

# Milepost Manufacturing Ltd.

[illegible]



9

# Inspections



## **FORMAL INSPECTION POLICY**

It is the policy of Milepost Manufacturing Ltd. to maintain a program of safety inspections and take control of all unsafe conditions.

The superintendent or his designate and a representative of a subcontractor will conduct a formal inspection of this company's jobsites and other facilities bi-weekly or more frequently if required.

Observations will be documented and reported to the president.

All deficiencies will be corrected as soon as possible.

The manager will do a formal inspection once a year with the superintendent and a worker.

Manager's Signature: \_\_\_\_\_ Date: January 1, 2018



## Inspections Part 9 (1)

### RANDOM SAFETY INSPECTIONS

Safety inspections of company activities and company owned worksites would be performed periodically to identify unsafe acts and conditions that could potentially cause or create injuries or property damage.

The inspections are a gauge by which the employees and subcontractors can determine how effective they are in promoting safety attitudes and actions in the workplace. The inspections will be performed by supervisors and are designed to acknowledge good, acceptable performances as well as unacceptable performances.

The inspection report is designed for company use and is not intended to replace accepted reports or inspections forms developed for specific situations or designed to comply with specific Alberta Regulations.



Part 9 (2)

*Deficiency Safety Inspection List*

Inspection Date: \_\_\_\_\_

Site Address: \_\_\_\_\_ Inspection Team: \_\_\_\_\_

\_\_\_\_\_

**Deficiencies**

| Deficiencies | Date Corrected |
|--------------|----------------|
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |
|              |                |

**COMMENTS**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**DAILY CRANE / HOIST INSPECTION REPORT**  
**Project Management Groups**

NOTE: This report must be completed and initialled daily by the Operator and Superintendent. This list may not be complete or may not apply to a particular crane. To supply additional information, use comments sections. Report any defects, etc. under comments.

FOR WEEK COMMENCING: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

TYPE OF CRANE: \_\_\_\_\_ EQUIPMENT NO. \_\_\_\_\_

|  | MON   | TUE   | WED   | THU   | FRI   | SAT   | SUN   |
|--|-------|-------|-------|-------|-------|-------|-------|
| 1. All Controls                                    | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 2. Fuel System                                     | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 3. Fire Extinguisher                               | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 4. Electrical System                               | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 5. Hydraulic System                                | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 6. Brake System                                    | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 7. Clutches and Gears                              | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 8. Outriggers, Seal, Pads                          | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 9. Safety devices, including boom angle indicators | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 10. Alarms   | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 11. Ropes, Cables, Hoist spooling                  | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 12. Wheels and tires                               | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 13. Any Fluid/Oil/Fuel Leaks                       | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 14. Engine Performance, gauges, fuel levels        | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 15. Walkways, Handrails, Ladders                   | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 16. Swing Radius Barricades                        | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 17. Cable Rollers, Track, Slewing Rings            | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 18. Structural Bolts and Pins                      | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 19. Boom Sections                                  | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 20. Hoist Block and Hook                           | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 21. Servicing as Per Manufacturer's Specs.         | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 22. Inspection Rigging, Hooks, Slings, Shackles    | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| 23. Superintendent's Initials                      | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

COMMENTS:

---

---

---

---

---

Date: \_\_\_\_\_ Operator Signature \_\_\_\_\_





10

# Investigations



## INVESTIGATION POLICY

It is the policy of Milepost Manufacturing Ltd. to have all accidents and/or incidents that result in injury or property damage reported to management immediately, followed up by a written report as soon as possible (within 72 hours) for a thorough investigation.

The purpose of such investigations will determine the cause of the accident and/or incident so that a recurrence can be prevented.

Management shall be responsible for conducting investigations and shall determine the appropriate measures to prevent recurrence.

### Responsibilities

All employees shall report all accidents and/or incidents to management regardless of how minor the injury or damage, followed by a written report.

Management shall conduct all investigations and shall determine corrective action to be taken, and ensure that such action is implemented.

Managers Signature: \_\_\_\_\_ Date: January 1, 2018



## INCIDENT REPORTING AND INVESTIGATIONS

### Investigations

#### Part 10 (1)

To ensure the immediate start of the claims management process, property damage repairs and compliance with legislative requirements, Milepost Manufacturing Ltd. will ensure the following:

- Employees will report all injuries, incidents, and property damage immediately to their supervisor. Records for all 1<sup>st</sup> aid injuries will be kept confidential. Symptoms of possible work-related illness such as muscle pain, rashes, etc., must be reported when the signs are first noted.
- All accidents and incidents must be recorded.
- All medical aids, time loss accidents and modified work placements must be reported to the Safety Supervisor to ensure WCB receives the proper information.
- Any injury or accident that results in an employee being hospitalized for two days or more must be reported to Alberta OH&S.

Incidents are classed in the following ways:

- Near Miss – is an undesired event that could have resulted in physical harm or cause damage to equipment but didn't. These incidents are investigated to identify trends that may be occurring.
- An Accident/Incident – is an undesired event that results in physical harm to a person or damage to property.
- An Unsafe Act – is a violation of an accepted safe procedure, which could permit the occurrence of an accident. Examples are improper lifting, using equipment improperly, using defective equipment, failure to use PPE, horseplay, and usage of alcohol or drugs.
- An Unsafe Condition – is a hazardous physical condition or circumstance which could directly permit the occurrence or an accident. Examples are defective tools or inadequate guards.
- First Aid Injury – an injury or illness that can be treated by standard first aid measures only and does not require further medical treatment.
- Medical Aid Injury - an injury or illness on the job that requires professional medical treatment, including prescription medication.
- Modified Work Injury – an injury or illness on the job that inhibits a worker from doing all the work normally related to his or her profession and requires that duties be adapted to fit the workers abilities or other duties to be temporarily assigned to the worker.
- Lost Time Injury – an injury or illness that prevents a worker from returning to work on the next scheduled working day.
- Recordable Injuries - include medical aid injuries, modified work injuries and lost time injuries.

Cont.....



## INCIDENT REPORTING AND INVESTIGATIONS

### Investigations Part 10 (1)

A formal investigation will be conducted and reported to OH & S if any of the following occur:

- A fatality
- Worker being admitted to hospital for more than 2 (two) days
- An unplanned or uncontrolled explosion, fire, or flood that causes serious injury or has the potential to cause serious injury.
- The collapse or upset of a crane, derrick or hoist
- The collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure.

(Section 18 OH & S Act)

Milepost Manufacturing Ltd. will investigate all medical aid incidents, accidents, and incidents that have the potential to result in injuries or damage to property or equipment. A written report containing a description of the incident, any evidence collected and an explanation of the causes of the incident and corrective actions. Members of the investigation team shall be qualified and competent in the investigation procedure. All "Near Misses" shall be recorded and reviewed as well. Upon completion of an investigation, managers are responsible for ensuring follow-up of corrective actions are implemented.

The reason for an incident investigation is to determine the cause of an incident in order to prevent the incident from recurring. It is not designed to lay blame.

Upon receiving a report, the supervisor must take the following steps:

- Obtain treatment for the injured worker
- Initiate any required emergency actions in accordance to the appropriate emergency response procedure
- Notify the HSE Manager

Investigations should be conducted as follows:

- Secure the scene, take photographs, and take notes as needed to record details.
- Interview personnel or witnesses involved separately.
- Complete the appropriate investigation form.
- Analyze the information to identify any immediate and root causes.
- List the appropriate corrective actions and implementation deadlines.



## NOTIFICATION OF NEXT – OF – KIN

Investigations  
Part 10 (2)

**Under no circumstances should the name of an accident victim or fatality be released without permission from the Company's Senior Management and / or the R.C.M.P.**

It is important that the employee's next of kin be notified as soon as possible. The names, addresses and telephone numbers of next kin are included in the employee's personnel file.

### **FATAL INJURY**

This notification should only be made in person and only with the family clergy, doctor or friend. The R.C.M.P. or city policy will assist with the notification whenever possible and will ensure the notification is complete.

**Never release the victim's name until next of kin is notified.**

### **NEWS MEDIA**

If, at any time, for **ANY REASON**, news media arrives on our property, be advised that all employees are to have **"NO COMMENT"** and to point out that the media people are on private property and ask them to leave. Media people are to be dealt with by management, no matter what the situation.

Likewise, should news media be on any jobsite our employees may be at, the response is **"NO COMMENT"** to everything.

Do not speculate on the cause of the emergency or provide the media with any type of statement that is **"OFF THE RECORD"**.

Before admitting the media onto Milepost Manufacturing Ltd. property, the senior Milepost Manufacturing Ltd. representative shall ensure that the area is absolutely safe and admittance will not hamper emergency services or investigations. The media shall always be accompanied while on Milepost Manufacturing Ltd. property.





## MILEPOST MANUFACTURING LTD.

### Incident Investigation Report

Who was involved? \_\_\_\_\_

What happened? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

When? Date: \_\_\_\_\_ Time: \_\_\_\_\_

Where? (if LSD., give company name as well) \_\_\_\_\_

\_\_\_\_\_

What was the immediate cause? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

What were the underlying causes? \_\_\_\_\_

\_\_\_\_\_

What training, instruction, cautions was given before the incident? \_\_\_\_\_

\_\_\_\_\_

How can similar incidents be prevented in the future? \_\_\_\_\_

\_\_\_\_\_

Recommendation for further action: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Person in Charge: \_\_\_\_\_

Signature: \_\_\_\_\_



# MILEPOST MANUFACTURING LTD.

#43, 26004-Twp Rd 544  
STURGEON COUNTY, AB T8T 0B6  
**INVESTIGATION REPORT**

Date: \_\_\_\_\_ Job # \_\_\_\_\_ Client: \_\_\_\_\_

Incident Type:

Injury/Illness

Property Damage

Spill

Fire

Other: \_\_\_\_\_ Unit # \_\_\_\_\_

Incident Date: (M/D/Y) \_\_\_\_\_ Time of Incident: \_\_\_\_\_

Specific Location: \_\_\_\_\_ Weather Condition: \_\_\_\_\_

Injury Information:

First Aid

Medical Aid

Fatal

Lost Time

Was worker trained in this job before incident? Yes ☐ No ☐

## Worker Information:

Employees Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Address: \_\_\_\_\_

Occupation: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Company / Contractors Name: \_\_\_\_\_

Workers Experience: \_\_\_\_\_ Nature of Injury: \_\_\_\_\_

Object / Equipment / Substance Inflicting Injury / Damage: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Lost Time Claim: Yes ☐ No ☐ Modified Light Duty Work: Yes ☐ No ☐

Was First Aid given: Yes ☐ No ☐ By Whom: \_\_\_\_\_

Was Injured Person Transported to Medical Aid? Yes ☐ No ☐

By Whom? \_\_\_\_\_ Where to? \_\_\_\_\_

Name of Doctor: \_\_\_\_\_

## Witness:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_





#### EVALUATION OF RISK POTENTIAL IF NOT CORRECTED

|    |                          |       |         |       |
|----|--------------------------|-------|---------|-------|
| A. | Loss Severity Potential  | Major | Serious | Minor |
| B. | Probable Recurrence Rate | Major | Serious | Minor |

Person(s) Responsible For Implementing Corrective Action: \_\_\_\_\_

What training, instructions and cautions were given to the worker before the injury / incident?

---

---

---

What were the causes of the injury / incident? \_\_\_\_\_

---

Direct Causes: \_\_\_\_\_

Indirect Causes: \_\_\_\_\_

#### RECOMMENDED ACTION TO PREVENT REOCCURRENCE

---

---

#### OTHER ACTUAL / POTENTIAL LOSS

Type: \_\_\_\_\_ Description: \_\_\_\_\_

Estimated Cost:

#### PROPERTY DAMAGE INFORMATION

Description of property / Unit #

---

Manager's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Safety Coordinator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Near Miss / Incident Report

A near miss is an event that under slightly different circumstances could have resulted in an injury to a person or damage to property, equipment, materials and / or the environment.

Employees Name: \_\_\_\_\_ Date: \_\_\_\_\_  
(may remain anonymous, name not required)

### Description of Incident /Near Miss

Unsafe act\_\_\_\_unsafe equipment\_\_\_\_unsafe condition \_\_\_\_unsafe use of equipment \_\_\_\_other (describe)\_\_\_\_

---

---

---

---

---

---

---

---

Equipment /Vehicle Unit # \_\_\_\_\_

### Recommendations to Prevent Recurrence

---

---

---

---

---

Corrective Actions Assigned to: \_\_\_\_\_

---

---

---

Date corrective actions completed: \_\_\_\_\_

Managers Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## Supervisors Accident Investigation Report

Incident Location: \_\_\_\_\_ Date of Occurrence: \_\_\_\_\_

Time of Occurrence: \_\_\_\_\_ A.M. / P.M. Date Reported: \_\_\_\_\_

| Personal Injury                             | Property Damage                              |
|---|--|
| Personal Injury : _____                     | Property Damage _____                        |
| Name: _____ Age: _____                      | Estimated Cost: \$ _____                     |
| Date<br>Employed: _____                     | Actual Cost: \$ _____                        |
| Occupation: _____                           | Nature of Damage: _____                      |
| Time on Job: _____                          | _____  |
| Nature of Injury: _____                     |  |
| Part of Body<br>Injured: _____              |  |
| Object/Equipent/Substance/Inflicting Injury | Object/Equipment/Substance/Inflicting Injury |
| Person with most control for above          | Person with most control for above           |
|   |  |

Describe clearly how the Incident Occurred

Attach Diagram from all Vehicle Accidents

What Acts, Failures or Conditions Contributed Most Directly To This Incident

Loss Severity Potential

Probable Recurrence Rate

1 Major 1 Serious 1 Minor

1 Frequent 1 Occasional 1 Rare

What Action Has or Will be Taken to Prevent Reoccurrence \_\_\_\_\_

Investigated By: \_\_\_\_\_ Date: \_\_\_\_\_ Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_





# FIRST AID RECORD

Date of injury or illness: \_\_\_\_\_ Time: \_\_\_\_\_ AM

PM

Date injury or illness Reported: \_\_\_\_\_ Time: \_\_\_\_\_ AM

PM

Full name of injured or ill worker: \_\_\_\_\_

Description of the injury or illness: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Description of where the injury or illness occurred/began:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Cause of the injury or illness:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

First aid provided?      Yes      No

Name of first aider: \_\_\_\_\_

First aider qualifications:

Emergency First Aider    Emergency Medical Technician    Paramedic  
Standard First Aider    Emergency Medical Technician    Advanced First Aider  
Emergency Medical Responder    Nurse

Describe first provided:

\_\_\_\_\_  
\_\_\_\_\_

Copy provided to worker \_\_\_\_\_ Copy Refused \_\_\_\_\_ Injured Worker Initials

\_\_\_\_\_



11

# Emergency Preparedness



## **EMERGENCY RESPONSE PLAN**

### **Emergency Preparedness**

#### **Part 11 (1)**

The EMERGENCY RESPONSE PLAN outlines the specific responsibilities of Milepost employees including supervisors and management to be taken in the following emergencies. Milepost Manufacturing Ltd. ensures that a current ERP is in place to facilitate a co-ordinated response by Milepost personnel to an emergency situation, which may affect Milepost or its affiliates.

#### **TRAINING**

- All workers must wear and use personal protective clothing and equipment appropriate to the work site and the emergency.
- All workers will be trained in fire extinguisher use.
- All workers will be WHMIS trained.
- First-Aid trained personnel will be available at every work site.
- The lead hand at each jobsite will be responsible for activation of alarms, evacuation, and notification of proper authorities.
- Affected workers will be involved in establishing an emergency response plan and review the plan at a safety meeting annually.
- Mock evacuation drills shall be performed at least twice per year and documented. These records will be retained for 3 years.
- A fire alarm consists of 3 short blasts on a compressed air horn. Each of the three short air horn blasts will be approximately three seconds in duration, separated by a one second pause.

#### *Remote Job Sites:*

- In addition to the above training, all workers will have H2S Alive, and confined space training.

#### **LOCATION OF EMERGENCY EQUIPMENT**

- Fire extinguishers are mounted immediately inside every exit door of every shop and inside the main office.
- First aid kits, including eye-wash, are mounted on the wall in all shops.
- An eye flush attachment is mounted at the sink in the lunch room. (new shop)
- All crew trucks and picker trucks shall be equipped with fire extinguishers, first aid kits, and individual eye wash containers (bottled water that is purchased for drinking, could be used in an emergency). Field crews will be equipped with a cell phone.

#### **IN THE EVENT OF VEHICLE ACCIDENT:**

Whether involved in, or first on scene:

1. Determine whether there is personal injury.
2. Call 9-1-1 for police and emergency services personnel (if required)
3. Attempt to extinguish a small fire.
4. Do not attempt to move an injured person except in the event of uncontrollable fire or imminent danger.
5. Administer first aid when possible.
6. Remain at the scene until emergency services personnel arrive.
7. Advise Milepost management of the incident.
8. Provide Milepost management with a written report of the incident.

#### **IN THE EVENT OF PERSONAL INJURY ON A JOB SITE:**

1. Apply first aid.
2. Advise site supervisor and Milepost management as soon as possible.
3. If injury is not life-threatening, transport to the nearest medical facility by company vehicle may be acceptable.
4. Provide a written report to management of the incident.

Cont.....



Emergency Preparedness  
Part 11 (2)

## EMERGENCY RESPONSE PLAN

### EMERGENCY EVACUATION PROCEDURES

1. Personnel will be alerted to evacuate the building by activation of 3 short blasts of a compressed air horn. Each of the three short air horn blasts will be approximately three seconds in duration, separated by a one second pause.
2. **STAY CALM**
3. All work is to be stopped.
4. All loads are to be lowered if possible.
5. Equipment, energy sources, and all sources of ignition are to be shut down.
6. Turn all compressed gas cylinders off and/or cover and secure all chemical products.
7. Do not leave tools, equipment, or materials in locations that obstruct pathways or exit ways.
8. Know where the exits are, and be sure they are not locked or blocked off.
9. Proceed to the nearest accessible exit and to the designated Muster Point.
10. At the Muster Point a name check-off will be performed to ensure that all employees are accounted for.
11. Remain at the Muster Point until advised by supervisor.
12. Keep non-essential people well back and clear for emergency vehicles.
13. Do not move vehicles unless instructed to do so.
14. Do not block the access roads.
15. Do not enter a building or area where an alarm is sounding.
16. Under direction of supervisor call for necessary emergency vehicles giving your name, location, type of emergency, and entrance route to the scene. Protect yourself first, then others.
17. Assign person to meet emergency vehicles.
18. The safety of personnel is your first priority; then direct attention to the protection of property.
19. Personal cell phones and/or cameras are not to be used during emergencies except if required to contact emergency services.
20. If you must, to rescue victims:
  - Keep upwind in the event of hazardous goods, spills, leaks or fire.
  - Administer First Aid to maintain life.
21. **Only** fight the fire if:
  - You are trained to do so
  - You will not be placing yourself in danger
  - The correct type of extinguisher is available
  - An escape route is available
22. Advise Milepost management of the incident.
23. If the circumstances of an emergency involve contact with the general public and/or the media, all questions and inquiries should be directed to Milepost Manufacturing Ltd. management. Workers should not become involved in discussion of the emergency or situation in any way with the media or public.
24. Provide a written report of the incident.





## EMERGENCY RESPONSE PLAN

### Emergency Preparedness Part 11 (3)

#### ACTION IN CASE OF AN EXPLOSION

Explosions include those caused by leaking gas, faulty heating equipment, and flammable vapours.

1. **Fall to the floor or ground** and take immediate shelter under, desks, trucks, equipment, or other such objects that will offer protection against flying glass or debris. Protect your face and head with your arms.
2. **After the effects of explosion have subsided**, evacuating the building, if notified to do so by the supervisor.
3. **Call the Fire Department.** Phone No. 9-1-1
4. **Do not return to the building or jobsite** until the "all clear" signal is given by the supervisor.
5. Advise Milepost management of the incident.
6. Provide a written report to management.

Part 11 (4)

#### IN THE EVENT OF A SPILL:

Never enter a spill scene unless you are qualified to evaluate the hazards, SDS's are available to you, and you have the proper equipment such as PPE and appropriate spill cleanup kit.

When encountering a spill of any nature, it is the responsibility of the **employee** to:

1. Warn others in the immediate vicinity that a spill has taken place:
2. Isolate the source of the release/spill if accessible and safe to do so
3. Designate a fellow employee to guard the area; and
4. Inform the site Construction Supervision
5. Contain the release/spill from spreading with readily available material
6. Refer to the MSDS and begin clean up measures as soon as possible following MSDS requirements
7. Disposal of contaminated material must follow all legislated, regulated requirements.
8. Incident scene must be secured until released by Construction Supervision.

It is the responsibility of the **SUPERVISOR OR LEAD HAND** to

1. **Re-assign to other areas or evacuate if necessary** using the following guidelines:
  - Unless immediate evacuation is essential, the supervisor shall decide whether or not to evacuate the building or jobsite.
  - Proceed immediately to designated muster station if notified by supervisor.
  - Move crosswind or upwind –**never downwind** – to avoid toxic gases and vapors.
2. Cordon off the immediate area.
3. Attempt to identify the spilled substance.
4. Advise Milepost office of incident.
5. Phone authorities listed below for clean-up and disposal procedure (if the spill is a reportable emergency.)
6. Keep all employees informed of procedures taken.
7. Provide a written report to management.

#### Emergency Phone Numbers

Milepost office. Phone #780-459-1030, 1-800-533-7065

Poison Center Phone # 1-800-332-1414

Alberta Environment Emergency Phone # 1-800-222-6514

Alberta Transportation Phone # 1-800-222-6514

Spill Report Centre – 24 Hr. Toll Free Phone #780-422-9600

City of Edmonton Report Centre – 24 Hr. Toll Free Phone # 780-496-6666



## EMERGENCY RESPONSE PLAN

Emergency Preparedness  
Part 11 (5)

### FIRE FIGHTING

Milepost Manufacturing Ltd. shall take all reasonably practicable steps to prevent the outbreak of fire and provide effective means to protect workers from any fire that may occur.

The following is the written fire safety plan that provides for the safety of all workers in the event of a fire.

#### Keep Calm

- Try to extinguish the fire if it is small and you feel it is safe to do so.
- Know the location of all extinguishers and how to use them.
- If the fire is not quickly extinguished, personnel will be alerted to evacuate the building by activation of 3 short blasts of a compressed air horn. Each of the three short air horn blasts will be approximately three seconds in duration, separated by a one second pause.
- Follow the "Emergency Evacuation Procedure" Part 11 (2) in this section.
- Do not *attempt to extinguish any fire without first informing others of the danger*. The safety of all personnel is your first priority; then direct attention to the protection of property.
- Dial 911 from a safe location and give the operator the pertinent facts, the nature of the fire, if there are any injuries, and location, name, and telephone number.
- Do not enter an enclosed space where the fire is or has been burning.

#### **Do not attempt to extinguish a fire if:**

- You are placing yourself in danger
- A properly rated fire extinguisher is not available
- You are not trained to use it
- The fire might block your exit route, or
- The fire is out of control

***Any Fire, Regardless of Size, is Serious.***

**To operate a Fire Extinguisher**

**(PASS)**

**Pull the pin**

**Aim at the base of the fire**

**Squeeze the handle**

**Sweep the extinguisher across the base of the fire**

All injuries and incidents with potential for causing serious injury to workers shall be investigated to identify any unsafe conditions, acts or procedures, which contributed to the incident and will determine corrective actions to prevent similar incidents.



## WORKING AROUND SEVERE WEATHER

### Emergency Preparedness

#### Part 11 (6)

- **Pay attention to daily forecasts** so you know what to expect during the day. Pay attention to early signs of thunderstorms or severe snow storms. (see Safe work Practice Part 3(39) Journey Management Plan) Other dangers of severe weather may include **tornados, strong winds, hail and flash flooding and lightening**. Lightning can reach the ground and start wild fires. Don't start anything you can't quickly stop. Lightning strikes can severely injure or kill workers whose jobs involve working outdoors. Lightning is often overlooked as an occupational hazard. Supervisors and workers at outdoor worksites should take lightning safety seriously. Lightning is unpredictable and can strike outside up to 10 miles from any rainfall.
- **Assess lightning risk and take appropriate actions.** During thunder storms no place outside is safe. If you can hear thunder, lightning is close enough to strike
- **If you can count to 30 seconds or less (from lightning to thunder), the lightning is within 6 miles of your location and you are in potential danger and should seek shelter. Wait for 20 minutes before resuming work to ensure that the potential danger of lightening has passed.**
- Stop what you are doing and seek safety indoors. The next best place for shelter is an enclosed metal car, truck or van. Remain in the building for 20 minutes after hearing the last sound of thunder. Stay away from windows and doors. Unplug electrical appliances and other electrical items such as computers. Power surges from lightning can cause serious damage.
- **Be aware of downed power lines** that may be touching your vehicle. You are safe inside, but may receive a shock if you steep outside.
- **If you are driving**, try to safely exit the roadway and park. Stay in the vehicle and turn on the emergency flashers until the heavy rain ends. Make sure the vehicle is not parked near trees or other tall objects that could fall over during a storm.
- **Lightning is likely to strike the tallest objects in a given area.** Avoid open fields, stay off and away from anything tall or high, including scaffolding, ladders, aerial lifts or other tall objects. You should not be the tallest object.
- **Stay away from water, wet items such as ropes, and metal objects such as fences and poles.** Water and metal do not attract lightning but they are excellent conductors of electricity. The current from a lightning flash will easily travel for long distances.
- **Stay off and away from large equipment** such as bulldozers, cranes, backhoes, track loaders, and tractors.
- **Crane's shall not be operated when load cannot be controlled due to wind or weather.** During thunderstorms, lifting activities should be suspended and the boom lowered to a safe position. Workers should leave the area and seek shelter in a substantial building if safe to do so. If a safe building is not available, stay inside the crane, close any windows and allow the storm to pass.
- **If a co-worker is struck by lightning.** Lightning victims do not carry an electrical charge, are safe to touch, and need urgent medical attention. Cardiac arrest is the immediate cause of death for those who die. Some deaths can be prevented if the victim receives the proper first aid immediately. Call 911 and perform CPR if the person is unresponsive or not breathing. Use an Automatic External Defibrillator if one is available.



## EMERGENCY PREPAREDNESS

### Emergency Preparedness Part 11 (7)

#### **FIRE CALLS**

Is everyone out of the building?

If not, where in the building are they located?

Where is the fire located in the building?

Tell operator if any chemicals are in the building.

Is an ambulance required?

Have someone meet the fire crew / ambulance

#### **MEDICAL AID CALLS**

Patient complaint.

Is patient conscious? (Yes or No)

Is patient alert? (Yes or No)

Difficulty breathing? (Yes or No)

Approximate age of patient?

Male or female?

#### **DANGEROUS GOODS SPILL**

Are there any injuries?

What product was spilled?

How many litres?

Exact location of accident?

Is an ambulance required?

Is spill under control?

#### **VEHICLE ACCIDENT**

Are there any injuries?

If so how many?

Is an ambulance required?

Is there any fuel leaks?

How many vehicles are involved?

Location of accident

**HEART ATTACK!!** Tell operator if someone has first aid and has started CPR.

# **EMERGENCY RESPONSE PLAN**

## **MUSTER STATION**

**In the event of an emergency where  
evacuation is necessary, the muster  
station is to be:**

**The East and West Gate  
Entrances to Milepost Yard.**



## EMERGENCY PHONE LIST

Company Name: MILEPOST MANUFACTURING LTD.

Phone Number: 780-459-1030

Contact Person: Stan Dean      Phone #: 780-499-5970

#43, 26004-Twp Rd 544  
Pro North Industrial Park, Sturgeon County, AB  
SE-25-054-26-4 Lot 8, Block 1, Plan 8120408

---

## EMERGENCY NUMBERS

Ambulance: 911

Police: 911

Fire Department 911

Hazardous Material Spills 911

Morinville RCMP 780-939-4520

Poison Centre: 1-800-332-1414

Industrial Accidents: (O.H. & S. Workplace Health & Safety) 780-415-8690  
Toll Free 1-800-272-9600

Gas Trouble: 780-420-5585 24 hr. # Atco Gas

Power Trouble: 310-9473 Fortis Alberta

---

## FIRST AIDERS

First Aider: \_\_\_\_\_ First Aider: \_\_\_\_\_

First Aider: \_\_\_\_\_ First Aider: \_\_\_\_\_

---

## Sub Contractor

Company Name: \_\_\_\_\_ Office Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Cell Number: \_\_\_\_\_

Foreman: \_\_\_\_\_ 24 Hour Number: \_\_\_\_\_

Sub Contractors (First Aiders)

First Aider: \_\_\_\_\_ First Aider: \_\_\_\_\_

# Emergency Numbers For Sturgeon County

|                                      |   |
|--------------------------------------|---|
| Fire (Alarm Only)                    | 9-1-1   |
| Police (Emergency Only)              | 9-1-1   |
| Ambulance (Emergency Only)           | 9-1-1   |
| Alberta Health Link                  | 780-408-5465 or 1-866-408-5465  |
| Fort Saskatchewan Hospital           | 780-998-2256  |
| Redwater Hospital                    | 780-942-3932  |
| Sturgeon Community Hospital          | 780-418-8200  |
| Poison Centre (No-Charge Dial)       | 1-800-332-1414  |
| <b>Doctor</b>                        |   |
| Epcor (Electricity)                  | <b>780-412-4500 (24 hr Emergencies)</b><br>1-800-667-2345 (General Inquiries)   |
| Fortis Alberta (Electricity)         | 780-310-9473 (780-310-WIRE)   |
| North Parkland Power REA Ltd.        | 780-398-2000 (24 Hr Emergencies)  |
| Atco Gas (Natural Gas)               | <b>780-420-5585 (24 Hr Emergencies)</b><br>780-424-5222 (General Inquiries)     |
| Alta Gas (Natural Gas)               | <b>1-866-222-2068 (24 Hr Emergencies)</b><br>1-866-222-2067 (General Inquiries) |
| Coronado Gas Co-op Ltd.              | 780-220-1189 (24 Hr Emergencies)  |
| Water And Sewer                      | 780-939-8254<br>780-498-9877 (After Hours)                                      |
| Telus (Telephone/Internet)           | 780-310-3131  |
| Distress Line                        | 780-482-4357 (780-482-HELP)<br>1-800-232-7288                                   |
| Kids Help Line – 24 Hours            | 1-800-668-6868  |
| Seniors Abuse Line – 24 Hours        | 780-454-8888  |
| Family Violence – 24 Hours           | 780-310-1818  |
| Safe Place Women's Shelter           | 780-464-7233  |
| Victim Services Unit Morinville RCMP | 780-939-4950  |
| Victim Services Unit Redwater RCMP   | 780-942-3704  |
| Win House, Crisis Line               | 780-479-0058  |
| Youth Emergency Shelter              | 780-468-7070  |



12

RECORDS, STATISTICS  
and  
MODIFIED LIGHT DUTY





## **STATISTICS and RECORD KEEPING**

Records, Statistics, Modified Duty  
Part 12 (1)

The terms record keeping and statistics refer to the methods of recording and tracking the safety performance of Milepost Manufacturing Ltd. All documentation pertaining to the safety program will be retained at the main office for further reference, for a minimum of 2 years.



## **Modified Work Program**

### **Records, Statistics, Modified Duty Part 12 (2)**

Milepost Manufacturing Ltd. is diligent and focused on assisting an injured worker in their recovery and dedicated to healthy living of employees.

Milepost Manufacturing Ltd. participates in the Occupational Injury Service Program. An OIS clinic is a medical clinic that has met quality requirements and has been granted status by WCB, they are staffed with physicians, nurses and other rehabilitation staff with a background in occupational medicine and disability management. It's a clinic specifically for people who are injured at work. The OIS clinic provides the injured worker with faster medical treatment, expedited access to diagnostic services, and disability management expertise – helping identify modified work options. OIS is a voluntary option for the worker.

The primary goal of this program is to return to work injured workers as soon as possible to their original job at either full duty or in a temporary assignment. The earlier an injured employee returns to work, the faster and better the healing recovery will be. If an injured worker cannot return to their original job at full capacity, as early return-to-work program provides temporary transitional duties to injured employees who are still able to work, but may have some restrictions.

Milepost Manufacturing Ltd. will provide modified work opportunities to injured employees. A list of jobs that can be performed by persons on modified duties will be available.

Employees shall be advised that Milepost Manufacturing Ltd. provides modified work opportunities, in the event that one suffers a workplace injury. This will be accomplished by communicating the company's policy during the orientation for newly hired workers, via safety meetings, tool box meetings and posting the policy in the lunch room.

In the event an injured worker chooses to see a different healthcare provider, the injured worker shall take with him a package of information, including the "Fitness for Work" assessment and our "Modified Work Program". The attending physician will indicate if the injured worker is able to perform modified duties.

Milepost Manufacturing Ltd. shall ensure that modified work being offered is consistent with the medical restrictions listed by the healthcare provider. Milepost Manufacturing Ltd. will ensure that changes in the scope of the modified work, adhere to the medical restrictions.

Medical records shall be kept confidential, in a locked file, and they will only be accessible to persons who require the information to perform their jobs. (i.e. supervisor, doctor, human resources etc.)

Milepost Manufacturing Ltd. shall maintain written records of incident details. This will help recall information about the circumstances of the incident at a later time, and will demonstrate due diligence. Incident investigation about the circumstances shall be maintained. Records will be kept of communications with the injured employee regarding modified work. Workers Compensation and medical records, where applicable, shall also be maintained.



## MODIFIED WORK AGREEMENT

Milepost Manufacturing Ltd. is diligent and focused on assisting an injured worker in their recovery and dedicated to healthy living of employees.

Milepost Manufacturing Ltd. is a participant in the “Occupational Injury Service” program which provides the injured worker with faster medical treatment, expedited access to diagnostic services, and disability management expertise – helping identify modified work options for the worker. Modified work being offered shall be consistent with the medical restrictions listed by the healthcare provider.

It is expected that all employees unable to perform their regular duties due to work site injury will accept and perform to the best of their ability the modified duties offered to them.

Report your injury immediately to your supervisor.

You will be taken to the closest OIS clinic for medical treatment.

Complete the WCB “Workers Report of Injury”

You will actively participate in your assessment.

You will actively participate in your injury management and return to work process, and be informed of all matters relevant to your return to work process.

You will participate in the recommended treatment/rehabilitation plan.

You will be provided with modified work that is safe, suitable, meaningful, and productive.

Your progress will be monitored and length of time performing modified duties will be based on relevant medical information.

You will maintain regular contact with your return-to work team (Milepost management, OIS physician, WCB case manager)

Your personal health information will be kept confidential.

If you have any concerns or difficulties please notify your supervisor immediately and they will ensure that you are only performing the duties consistent with the medical restrictions listed by the healthcare provider.

Offer Accepted: \_\_\_\_\_

Date: \_\_\_\_\_

Not Accepted: \_\_\_\_\_

Date: \_\_\_\_\_



## MODIFIED WORK OFFER

In keeping with our policy to provide suitable employment to any employee unable to perform their duties as a result of work site injury, Milepost Manufacturing Ltd. offers the employee modified duties as stated below. It is expected that all employees unable to perform their regular duties due to work site injury will accept and perform to the best of their ability the modified duties offered to them.

The modified position is \_\_\_\_\_  
Name or Description of Position

The duties that you will be required to perform are as follows: \_\_\_\_\_

\_\_\_\_\_  
Specific Job Duties and Physical Requirements of the Position

The hours of work will be from \_\_\_\_\_ "to" \_\_\_\_\_ From \_\_\_\_\_ "to" \_\_\_\_\_  
HRS HRS Day of Week Day of Week

Your rate of pay will be \_\_\_\_\_ PRE-ACCIDENT RATE

The length of this modified work placement will be from " \_\_\_\_\_ "to" \_\_\_\_\_ "

We will continually review your progress and adjust the length of this placement as required based on relevant medical information.

During this modified work placement, you will be supervised by " \_\_\_\_\_ "  
If you have any concerns or difficulties please notify your supervisor immediately and they will ensure that you are only performing the duties as outlined above. We also request that you meet with " \_\_\_\_\_ " your case co-ordinator, "Once a week" to review your progress.

Offer Accepted: \_\_\_\_\_ Date: \_\_\_\_\_

Not Accepted: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor: \_\_\_\_\_

Case Co-ordinator: \_\_\_\_\_



# MEDICAL ASSESSMENT FORM

**(Please Return with Employee)**

Attending Physician: \_\_\_\_\_ Date: \_\_\_\_\_

\_\_\_\_\_ An employee of Milepost Manufacturing Ltd. has \_\_\_\_\_ workers name \_\_\_\_\_ suffered illness/injury. Milepost Manufacturing Ltd. is prepared to accommodate this worker's physical limitations with modified duties upon receipt of your approval. We appreciate you seeing our employee and thank you for assisting us by completing the form below.

\_\_\_\_\_  
Sincerely,  
Milepost Manufacturing Ltd.

Workers Job Classification: \_\_\_\_\_

## Assessment and Recommendations:

Injury Sustained: \_\_\_\_\_

Is employee fit for regular duty?      ☐ Yes ☐ No

If not, can employee perform modified or alternative duties?      ☐ Yes      ☐ No

☐ Light Duty

☐ Medium Duty

☐ Heavy Duty

Fit for modified work, with the following Restrictions / Limitations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Expected length of modified duty from \_\_\_\_\_ "to" \_\_\_\_\_

Next Medical Review: \_\_\_\_\_

Physician's Signature: \_\_\_\_\_ Date: \_\_\_\_\_



Date: \_\_\_\_\_

I, \_\_\_\_\_ acknowledge that I have received the Worker's Responsibilities and safety rules that apply to Milepost Manufacturing Ltd.

I agree that I am committed and accountable to performing the best service to our customers, Milepost Manufacturing Ltd. management and fellow workers.

I, realize the importance of my participation in the company safety program in order to achieve excellence in safety practices as it benefits all workers.

In my commitment, I will comply with the general rules, assignment of responsibilities and accountability for safety.

To the best of my ability and training, I will honour the safety policy developed by Milepost Manufacturing Ltd., which is signed and approved by the Manager of Milepost Manufacturing Ltd and enforced by safety management.

I realize that following the above is a condition of employment, and by not complying with the safety rules, as well as regulatory requirements, is a qualified reason for dismissal.

Employee's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Safety Management: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTE:** New employees will receive an orientation package consisting of company policies and procedures. It is the employee's responsibility to read all information thoroughly prior to signing these documents.





# FIRST AID RECORD

Date of injury or illness: \_\_\_\_\_ Time: \_\_\_\_\_ AM  
PM  
Date injury or illness Reported: \_\_\_\_\_ Time: \_\_\_\_\_ AM  
PM

Full name of injured or ill worker: \_\_\_\_\_

Description of the injury or illness: \_\_\_\_\_

---

---

---

---

---

Description of where the injury or illness occurred/began:

---

---

---

---

---

Cause of the injury or illness:

---

---

---

---

---

First aid provided?      Yes      No

Name of first aider: \_\_\_\_\_

First aider qualifications:

Emergency First Aider    Emergency Medical Technician    Paramedic  
Standard First Aider    Emergency Medical Technician    Advanced First Aider  
Emergency Medical Responder    Nurse  
Describe first provided:

---

---

Copy provided to worker \_\_\_\_\_ Copy Refused \_\_\_\_\_ Injured Worker Initials

\_\_\_\_\_





## MONTHLY INJURY SUMMARY

Month of: \_\_\_\_\_

|   | Man Hours Worked |              | Lost Time |              | First Aid |                   | Frequency |              |  | Severity |              |
|---|------------------|--------------|-----------|--------------|-----------|-------------------|-----------|--------------|--|----------|--------------|
| Project Address   | Month            | Year to Date | Month     | Year to Date | Month     | Year to Date      | Month     | Year to Date |  | Month    | Year to Date |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
|   |                  |              |           |              |           |                   |           |              |  |          |              |
| <i>Refer to WCB for your industry average</i> Accident frequency is calculated as: Number of Recordable injuries x 200,000 divided by number of employees hours of exposure<br><br>Accident Severity is calculated as: Number of workdays lost 200,000 divided by the number of employee hours of exposure. |                  |              |           |              |           | Severity Average  |           |              |  |          |              |
|   |                  |              |           |              |           | Frequency Average |           |              |  |          |              |



## Personal Injury Cases

### Monthly Injury Summary

Month of: \_\_\_\_\_

| Job Site Location   | Type of Injury | Medical Referrals |              | Days Lost |              | Frequency |              | Severity |              |
|---|----------------|-------------------|--------------|-----------|--------------|-----------|--------------|----------|--------------|
|   |                | Month             | Year to Date | Month     | Year to Date | Month     | Year to Date | Month    | Year to Date |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
|   |                |                   |              |           |              |           |              |          |              |
| Accident Frequency is calculated as: Number of Recordable Injuries x 200,000 divided by the number of employee hours of exposure.<br>Accident Severity is calculated as: Number of workdays lost x 200,000 divided by the number of employee hours of exposure. |                |                   |              |           |              | Total     |              |          |              |
|   |                |                   |              |           |              | Average   |              |          |              |