PDI®
PRIESTLY
DEMOLITION INC

ALBERTA SAFE WORK PRACTICES MANUAL

Leading the way.
Innovation | Technology | Experience

DEMOLITION – EARTHWORKS – SITE SERVICES – ENVIRONMENTAL REMEDIATION

TABLE OF CONTENTS

SAFE WORK PRACTICES OVERVIEW

Safe Work Practices are a set of positive guidelines (the “do’s and don’ts”) on how to perform a specific task that may not always be done a certain way. Safe Work Practices are a means of controlling hazards while allowing the work to be done with a minimum risk to workers, material, or property.

To achieve this goal, the company must have a written set of Safe Work Practices outlining what is to be done, in very general terms, for each job identified as having the potential to cause harm, serious injury, or damage. Every company has its own identity and special risks associated with it. Safe Work Practices must reflect the work the company does. It is very important that management understand and enthusiastically promote these practices, and ensure that:

- They are in writing.
- They are related to the scope of work.
- All workers understand them and regularly apply them.
- That supervisors and workers ensure that they are followed.

It is important that all employees buy into the practices as something that will help them go home safely and injury free every night and not a scheme to babysit or spy on them.

Accident Factors

Accidents at work cause too many painful injuries and claim far too many lives. Our primary concern, when we discuss factors or causes behind an accident, is to find a way to prevent reoccurrences. The cause of an accident can be found in two areas – unsafe acts and unsafe conditions.

As a worker you control the first cause - unsafe acts. For example: A worker uses equipment that is defective or damaged, or they use good equipment in a careless or unsafe manner. Other examples of unsafe acts include disregarding posted warning signs, failure to wear PPE, smoking near flammables or explosives, working too close to power lines, handling chemicals or other hazardous materials improperly, putting your body or any parts of it on or into shafts or openings, and lifting material incorrectly.

The second accident factor or cause is unsafe conditions, which can be found on many sites. Examples include inadequate or improperly installed guard rails or lack of guarding at all, which will most certainly lead to an accident, insufficient illumination, poor ventilation, electrical grounding requirements not observed, too few fire extinguishers available, containers that are not labeled, and careless disposal of waste of excess material. These are just a few of the many unsafe conditions that may be caused by workers, sub-contractors, or the general contractor.

You can make a difference by taking the time to perform your work safely and reporting any unsafe conditions you discover to your supervisor immediately. When the cause behind an accident is found, you’ll find that safety on the job plays a major part in preventing that type of accident from occurring again. If everyone on the job cooperates, injury and death statistics will be reduced, and it will be much safer for you to do your job.

1 ACCESS AND EGRESS

Having good access and egress to the site and to the plant and equipment operating on the site is a basic health and safety requirement that is often overlooked. Over 30% of workplace accidents are as a result of slips, trips, and falls.

Addressing the fundamental issues associated with access and egress can help reduce accidents, incidents, and near hits in the workplace.

- Areas of access and egress must be adequately lit.
- If material may fall on a worker, overhead protection shall be provided.
- Access to and egress from a work area located above or below ground level shall be by stairs, runway, ramp, or ladder.
- Areas of access and egress shall be kept clear of obstructions.
- Areas of access and egress shall be kept clear of snow, ice, or other slippery material.
- Areas of access and egress shall be treated with sand or similar material when necessary to ensure firm footing.
- Every shaft shall have a means of access and egress by stairway, ladder, or ladderway for its full depth during construction and when it is completed.
- A cage or car on a hoist used for transporting workers in a shaft:
  - Shall be at least 1.8 metres high;
  - Shall be solidly enclosed, except for openings for access and egress;
  - Shall have a maximum of two openings for access and egress;
  - Shall have a gate at each opening for access and egress; and
  - Shall have a protective cover suitable to protect passengers from falling objects.

2 AERIAL WORK PLATFORMS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to aerial work platforms. This practice applies to all Priestly Demolition Inc. employees, contractors, clients, suppliers, and members of the public.

RESPONSIBILITIES

SUPERVISOR

Supervisors will ensure that all workers are properly trained to work with aerial work platforms, as well as safe work practices related to aerial work platforms.

WORKER

Workers must be familiar with safe work practices related to aerial work platforms.

An aerial work platform is a device used to lift people and sometimes materials to an elevated work area. To maintain safe work practices while using an aerial work platform, be aware of the following points.

PRACTICES

BEFORE A LIFT

- Ensure the aerial work platform is operated only by workers who have been instructed in the operation, inspection, and safety mechanisms of the machine.
- Workers must not go in the air unless a trained person on the ground is immediately available to assist in lowering the aerial work platform in case of emergency.
- Conduct daily inspections and maintenance, as required by the manufacturer.
- The ground area in the vicinity of the aerial work platform is to be roped off and posted for “Danger” or “Overhead Work.”
- Understand the types of working surfaces on which the machine is designed to be used.
- Know the maximum rated working loads of the machine. The total load, including the workers, tools, and supplies cannot exceed the manufacturer’s capacity.
- Be aware of special conditions or limitations of the machine.
- Know the significance of alarms and the location of emergency controls.
- Do not use damaged aerial work platforms until they are repaired by a qualified mechanic.
- Do not use an aerial work platform under high wind conditions. This is especially important for smaller scissor lifts and boom type devices.
- Ensure there is a dry chemical extinguisher available on the equipment at all times.

DURING A LIFT

- Use only manufacturer's platform extenders to extend the platform on an aerial work platform. Do not extend a platform by using cantilevered planks or similar materials.
- Know the capacity rating for an aerial work platform and do not exceed it. Whenever possible, a load should be distributed evenly over the platform.
- Ensure that an aerial work platform is not used for pulling, pushing, or dragging materials.
- Maintain three-point contact when getting on or off the platform of a man lift device.
- Ensure that the terrain on which the device is placed, and that the terrain it will travel over, is firm enough to support the device and its rated working load.
- Do not move a vehicle mounted aerial work platform unless the platform is fully retracted and stowed.
- Drive the aerial work platform in its raised position, only on surfaces specified by the manufacturer. It should not be driven in a raised position close to holes, depressions, trenches, or similar hazards.
- Know the safe clearance distance from overhead power lines. An aerial work platform or any other part of a lifting device should not be moved closer than 3 metres (10 feet) to an overhead power line. Depending on the power line voltage, this distance may be further.
- Turn off the power system when the aerial work platform is not in use. This will prevent exhaust fumes from accumulating in an enclosed work area.
- Do not climb from an aerial work platform to another elevated position while in the air.
- Secure an approved safety harness and lanyard from the boom to the workers in the air.

3 AIR TOOLS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to air tools. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

Air tools are convenient tools that operate off of compressed air. They can be very productive tools but must be treated with respect. Review the safe work practices about compressed air before using an air tool. Follow these guidelines to ensure that you and those around you stay safe.

PRACTICE

- Inspect all air tools, hoses, and components before and after each use.
- Never use a bent or broken air tool or component.
- Bleed air from the air hose before disconnecting the air tool or hoses.
- Work as closely as possible to the air shut off valve.
- Always be aware of where the air shut of valve is located.
- Turn air shut off valves to off when air tools are not in use and at the end of each shift.
- Obtain underground utility locates for the work area.
- Wear suitable personal protective equipment such as safety goggles, face shields, and close-fitting clothing as well as all personal protective equipment that is required for your work site.
- Keep any looser fitting clothing away from moving parts.
- Ensure that you are holding a good stance when operating air tools as they sometimes kick back.
- Use proper shoring and/or slope equipment when using air back tools.
- Use air tools only for the intended purpose of each tool.
- Practice good housekeeping at all times.

MAINTENANCE

- Oil air connections on the air tool before and after each use.
- Tag and lock-out any bent or broken air tool or component. Review and follow the section on tagging and lockouts.

4 ASBESTOS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to asbestos handling. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensure employees are aware of the dangers of asbestos.
- Complete site walk-downs.
- Ensure SDS are available to workers.

WORKER

- Survey work area and complete a Field Level Hazard Assessment.
- Be aware of the dangers of asbestos.
- Report any suspected asbestos contamination to supervisor immediately.
- If asbestos is believed to be present in work area, workers stop all work and leave the area until told that it is safe to return.
- Review SDS.

PRACTICES

- If a Priestly Demolition Inc. employee comes in to contact with what they believe to be asbestos, they must immediately evacuate the area, alert other workers to do the same, and must not return - even to collect tools. A report must be made to the site supervisor of possible contact with asbestos and the project manager must be contacted as soon as possible and informed of the situation.

- Workers' exposure to asbestos must be kept as low as reasonably achievable. Employees must not be exposed to airborne concentrations of asbestos in excess of 0.1 fibers per cubic centimeter of air (0.1 f/cc) over an 8-hour time period. Workers who may be exposed to asbestos at a work site will be informed of health hazards associated with exposure to asbestos and provided with a health assessment.

- Regulations require asbestos locations to be identified, and where asbestos abatement activities are in progress, those areas must be isolated so other areas are not contaminated. Workers are trained in procedures developed by Priestly Demolition Inc. to minimize a worker's exposure. When Priestly Demolition Inc. employees are made aware of these locations, they must stop work immediately and contact their immediate supervisor.

- Experts may be contracted to determine the type and quantity of the asbestos as well as to assist with the evaluation of the hazard the product produces.

- Additional personal protective equipment will be supplied, if required, to protect the worker and site-specific procedures will be developed to protect all workers and the environment.
- Uncertainty of the product requires that prior to Priestly Demolition Inc. employees beginning their part of any job, experts may be brought in to remove the asbestos waste. It must be clearly labeled to identify the contents as an asbestos product and carcinogenic, and to warn handlers that dust from the contents should not be inhaled.

DEFINITIONS

Asbestos is the term used to describe a group of naturally occurring fibrous mineral silicates. Three (3) types of asbestos have been used commercially:

Chrysotile - (white asbestos) is the most commonly used form of asbestos.

Amosite - (brown asbestos) has been used in sprayed coating, in heat insulation products, and in asbestos cement products where greater structural strength is required.

Crocidolite - (blue asbestos) is no longer used and is rarely found. Before 1973, it was commonly used in sprayed coatings on structural steel work for fire protection and for heat or noise insulation. It was also used in gasket materials and asbestos cement pipe.

Friable asbestos material - can be crumbled with hand pressure and is therefore likely to emit fibers. The fibrous or fluffy sprayed-on materials used for fireproofing, insulation, or sound proofing are friable, and they readily release airborne fibers if disturbed.

Non-friable asbestos material – vinyl-asbestos floor tile or roofing felts are considered non-friable and generally do not emit airborne fibers unless subjected to sanding or sawing operations. Asbestos-cement pipe or sheet can emit airborne fibers if the materials are cut, abraded, or sawed, or if they are broken during demolition operations

The OH&S Regulation defines asbestos-containing material as containing 1% or more asbestos by weight at the time of manufacture, or which contains 1% or more asbestos as determined by polarized light microscopy, electron microscopy, or gravimetric analysis (examples include NIOSH Method 9002, EPA Method 600/R-93-116). Some materials (such as vermiculite) may contain less than 1% asbestos, by weight or volume, and still pose a risk to workers if improperly handled. The analytical method used for these materials should be able to determine the level of asbestos to below 1%.

The following activities may create a moderate risk to exposure of airborne asbestos:

- Using hand tools to cut, shape, drill, grind, or remove non-friable manufactured products containing asbestos, i.e., asbestos cement pipe.
- Drilling or cutting through non-friable asbestos containing materials.
- Backing mounting screws out of asbestos cement products and removing the boards or tiles intact.
- Buffing floor tiles with a course disc.
- Collecting asbestos samples for laboratory analysis.

- Removing any part of a false ceiling to gain access to a work area when friable asbestos-containing materials are, or are likely to be, lying on the surface of the false ceiling.
- Removing drywall materials where joint filling materials containing asbestos have been used.
- Removing vinyl asbestos floor covering or other non-friable materials where the procedures do not create any friable waste.
- Removing an entire piece of equipment or pipe with the asbestos containing material remaining effectively intact.
- Demolishing a block wall that has asbestos debris in its cavity, provided the asbestos concentration in the debris is less than 1%.
- Dismantling a treated enclosure at a completion of an asbestos removal project.

Work site owners must clearly identify all locations of asbestos-containing materials. All areas where asbestos abatement activities are in progress are to be isolated so other areas are not contaminated.

If any worker notices any asbestos, they are to immediately contact their supervisor or the operator at site, cease work, and evacuate the area until the asbestos has been removed by an outside contractor and the area is deemed safe to re-enter.

REGULATIONS AND CODES

- Alberta OH&S regulations Part 1-16 – Substance Specific Requirements (6.2-6.32).
- Asbestos is classified as a hazardous material under the Hazardous Materials Act and Transportation of Dangerous Goods Regulations. The correct shipping name is Asbestos, White and it is classified as PIN No. UN2590 Class 9.1 Packing Group III.
- The OH&S act Chemical Hazards Reg. 393/88 including AR 303/92 sets out in part 3, the requirements for work practices and procedures and establishes requirements for medical surveillance of workers exposed to asbestos on a continuing basis.
- The General Safety Regulation (AB. Reg. 448/83) outlines requirements for the competency of workers, the selection, use, and maintenance of respiratory protective equipment and other safety related issues.
- The Alberta Transportation of Hazardous Goods Act outlines Provincial Transportation requirements.
- The Hazardous Waste Regulations (AR 505/87) sets out the guidelines for Waste Disposal.

5 BACKFILLING

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to backfilling. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

The supervisor will provide proper instructions to the workers on protection and safe operating requirements for backfilling procedures and ensure that the operator and the worker know and understand the proper hand signals.

WORKER

The worker shall ensure proper training certification is provided to Priestly Demolition Inc. The worker will have knowledge and understanding of the use of proper hand signals. Follow all manufacturers' specifications and all practices specified below.

PRACTICE

Backfilling requires workers and operators to be in constant communication while backfilling is being done. It is important that everyone is visible and accounted for before and during the backfilling procedure.

- No backfilling operations shall commence until all workers are clear of the area to be backfilled.
- The operators of any backfilling vehicles and/or equipment are to keep the spotter and other workers in sight at all times.
- Operators and spotters use proper hand signals to communicate.
- Use all proper personal protective equipment such as high visibility vests and all other required personal protective equipment required for your site.
- Never enter the area to be back filled at any time when backfilling procedures are happening or about to happen, unless all operators are aware that you are going into the hole.

6 BARRICADES

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to barricades. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients. Barricades are structures set up across a route of access to act as an obstacle.

Guardrails protect railing such as on a staircase or along a highway.

RESPONSIBILITIES

SUPERVISOR

- Aiding workers in their job.
- Providing proper instruction to their workers on protection requirements.
- Ensuring workers are wearing the proper personal protective equipment.
- Pre-planning trench/excavation soil condition.

WORKER

- Understanding and following the safe work practices below.
- Wearing the proper personal protective equipment.
- Asking supervisors for assistance when something is not understood.

PRACTICE

- Always take precautions around barricades and guardrails.
- Install guardrails and/or barricades prior to creating a hazard.
- Guardrails around floor openings or similar fall hazards will have a top rail no higher than 42 inches.
- Do not use rope guards.
- Place barricades and “Danger: Keep Out” signs in areas when other workers are working above ground level.
- Use safety tape to warn workers of an area hazard.
- Cover floor openings securely by nailing on a cover or by other effective means. Paint “Danger - Do Not Remove” or “Hole” on the covering.
- Install permanent guardrails as soon as possible in areas where they are needed.
- Install guardrails on any stairways as the construction of the stairways progresses.
- Barricade excavations must have signs installed to warn workers of the danger.
- Guardrails, barricades, hoarding, and frames must be made of metal tubing.
- Maintain propane storage tanks with proper barricades.

7 BATTERIES – CHARGING AND SERVICING

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to charging and servicing batteries. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

Supervisors are responsible for making sure that workers get the necessary training regarding personal protection and safe work practices for servicing and charging batteries.

WORKER

Workers must wear the appropriate personal protective equipment and follow the safe work practices listed below.

- Batteries contain sulphuric acid and should be handled only by trained personnel in approved battery charging areas.
- Work in an area where an eye-wash station and a safety shower are readily available.

PRACTICES

- Wear acid-proof clothing, boots, face shields, aprons, gloves, and safety glasses when working with lead-acid storage batteries.
- Use a battery carrier to lift and carry a battery.
- Before charging a battery, inspect it for defective cables, loose connections, corrosion, cracked cases or covers, loose hold-downs, and deformed or loose terminal posts. Do not charge a damaged battery.
- Replace worn or unserviceable parts.
- Ensure the charger is off before attaching or removing clamp connections. Use a cable puller to remove a cable clamp from the battery terminal.
- Clean dirt from the battery with a baking soda solution. Clean the battery terminals and the cable clamps with a tapered brush.
- Remove corrosion from the terminal posts, the hold-down tray, and the hold-down parts.
- Tighten cable clamp nuts with the proper sized wrench.
- Check the indicator to ensure battery cells are filled to safe levels. If necessary, add distilled water before charging the battery.
- Ensure the battery charging area is sufficiently vented.
- Ensure the charger is off before attaching or removing clamp connections.
- Attach clamps to the battery in the correct sequence and polarity.

8 BENCH GRINDERS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to bench grinders. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instruction and training to their workers on protection requirements for using bench grinders.
- Perform work site inspections.
- Perform work hazard analyses.
- See that all safety and precautionary requirements are met.

WORKER

- Inspect equipment before each use.
- Follow safety guidelines and safe work practices.
- Use equipment safely and properly.
- Maintain equipment safely and properly.
- Follow the manufacturer’s guidelines for grinders and wheels.

PRACTICES

Bench grinders are efficient and necessary pieces of equipment, however, they must be treated and used with respect. If used improperly, they can cause serious injuries such as loss of fingers, limbs, and life.

USE

- Check that the tool guide has a maximum distance of 1/8” from the abrasive or buffing wheel.
- Always wear safety glasses and a face shield as well as all other required personal protective equipment required for your work site.
- Always stand to the side of the grinding wheel when it is being started.
- Never wear loose clothing, loose jewelry, or loose hair while operating a bench grinder.
- Each time a wheel is replaced ensure that the maximum approved speed of the wheel matches or exceeds the bench grinders’ maximum rating.
- The flanges supporting the grinding wheel should be a maximum of 1/3 of the wheel’s diameter and must fit the shaft’s rotating speeds as set by the manufacturer.
- Ensure that your work area is well lit.
- Remove any materials that may be ignited by the sparks from the grinding wheel.

- Maintain proper footing and balance. Do not lean into your grinder or the material that you are grinding.
- Ensure proper guards are in place.
- If a piece becomes jammed in between the guard and the wheel, stand aside immediately and shut off or unplug the grinder.
- Never use a damaged or unbalanced wheel.

MAINTENANCE

- Unplug the bench grinder when tightening the tool rest (or guide) or when replacing the abrasive or buffing wheel.
- Stand to the side and allow the wheel to run for one minute before using it.
- Ensure that the abrasive wheel has an even wear. If the wear is uneven or angled, use a proper surfacing tool to resurface the front of the wheel only. Using a surfacing tool or grinding on the sides of the wheel may cause the wheel to crack and explode, causing serious bodily harm, injury, or even death.
- Handle and store wheels carefully so as to prevent hazardous damage to the wheel.
- Do not over tighten the spindle nut. This can cause damaged flanges and put stress on the wheel.

9 CELLULAR TELEPHONE USAGE

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to cellular telephone usage. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

DRIVING

There has been much discussion around the safe use of cellular telephones, particularly when operating motorized vehicles or equipment. Medical studies have indicated that brain wave patterns of cellular telephone users show similar levels of impairment while driving, to those of drivers at legal impairment levels from alcohol. This includes both regular and hands-free telephone usage. Statistics indicate that traffic accidents are the leading cause of workplace deaths and generally occur due to driver distraction. Priestly Demolition Inc. has a policy of zero cell phone usage while operating a motor vehicle.

The following recommendations will assist in maintaining safe use of cellular telephones:

- Make **DRIVING** your **PRIORITY**.
- Turn your phone off upon entering your vehicle.
- Always let your voicemail take your incoming calls if your phone hasn't been turned off.
- Pull over to a safe location when it is safe to do so to retrieve or return messages.
- Hands-free devices are useful but do not eliminate the distraction.
- Avoid cellular telephone usage while refuelling.

JOBSITES

Many jobsites have specific policies regarding possession and use of cellular telephones on their properties due to the risk of disruptions to sensitive computer control equipment or because of the presence of flammable and explosive atmospheres at the location. All client policies will be followed and enforced by Priestly Demolition Inc. regarding the use of cellular phones and other electronic devices.

All employees are to leave their cellular telephones in their vehicles or the lunchroom and limit their calling to designated break periods. Cell phones in the lunchroom are to be left in the vibrate position with no sound so as not to cause a distraction to personnel. If communication requirements due to family or health issues are a concern, please discuss these with your supervisor so that alternate arrangements can be made.

10 CHAINSAW USE AND FALLING TREES

Purpose:

- Chainsaw operation is one of the most high-risk occupations in our industry.
- Power chainsaws must be safely used, inspected, and maintained on a daily basis to ensure proper operation and worker's safety.

Implementation:

- All workers and contractors will be required to follow the guidelines of this safe work practice.

Guidelines:

- Keep the saw chain properly filed with the proper chain tension.
- Ensure rakers, or depth gauges, are properly filed to minimize kickbacks.
- Adjust your saw so that when idling, the chain is stopped.
- Keep the chain brake in good working order.
- Saws with a defective or missing chain brake will not be used until repaired/replaced.
- Handles must be straight and tight.
- Covers are tight.
- Muffler is tight.
- Gloves must be worn when filing, changing, or handling the chain.
- All PPE must be worn while using power chainsaws:
  - CSA approved hard hat
  - Hearing protection
  - Eye protection (Face shield)
  - CSA approved wrap-around chainsaw pants
  - CSA approved steel toed boot with non-slip soles
  - Gloves or mitts
  - Personal first aid kit with pressure bandage
  - Whistle
  - Long sleeves
  - High visibility vest with 400cm² reflection front and back
- Carry the saw with the chain bar to the rear.
- Saws with a defective or missing Trigger Safety Lock will not be used until repaired/replaced.
- Shut the motor off when carrying the saw further than a few steps.
- Always ensure good footing and balance when operating the saw.
- Keep your thumb under the handlebar of the saw to avoid the hand from slipping onto the chain in case of kickback.
- Do not jerk the saw to avoid loss of control, uncertain footing and possible back, arm or shoulder strain.
- Know where the tip of the bar is at all times, especially in large timber or when limbing to avoid kickbacks.
- Use the right length bar for the job.
- Never stand directly behind the saw or straddle the saw.
- Work to one side to avoid kickbacks.
- The chain brake should be activated during the day to ensure proper operation.
- Clean out the mechanism of the chain brake daily.

Daily Maintenance:

- Read the manuals and specifications for your saw.
- Use the fuel mixture and lubricating oil recommended by the manufacturer.
- Clean off the saw.
- Keep the handles dry, clean, and free of oil or fuel mixture.
- Check for loose bolts, missing screws, broken castings, etc.
- Clean the air filter.
- Fill with fuel and oil.
- File chain, if necessary.
- Check bar for burrs and remove them with a flat file.
- Clean the bar groove.
- Grease the bar tip.
- Clean and check operation of chain brake.
- Check operation of Trigger Safety Lock.
- Once a week, check the Floating Sprocket for signs of wear, replace if necessary.
- All chainsaw service, other than the items listed in the operator's/owner's safety and maintenance instructions should be performed by competent chainsaw service personnel.

Do not operate a chainsaw that is damaged, improperly adjusted, or not completely and securely assembled.

Weekly Maintenance:

- Remover starter cover.
- Check for wear on cord.
- Starter should be recoiling smoothly.
- Clean fan.
- Remove the chain brake clean and oil the linkage.
- Clean the bare groove and file burrs from edges.
- Lubricate the clutch-drum bearing.
- Check for cracks and loose screws.

Monthly Maintenance:

- Wash out fuel and oil tanks.
- Clean and gap spark plugs.
- Replace gas filter.

Fuelling Chainsaw:

- Allow hot saw to cool two/three minutes before refuelling.
- Refuel saw on a spot cleared to bare ground.
- Do not fuel a chainsaw on plastic, as static electricity may build up causing an explosion or fire.
- After refuelling, tighten the tank cap to prevent fuel spilling onto clothing.
- Clean spilled fuel from motor before starting.
- Check fuel lines, tank cap and connections for leaks.
- Move saw at least ten (10) feet from refuelling spot before starting.
- Do not smoke at any fuelling point or after spilling fuel.
- Fire extinguisher should be available at all fuelling locations.

Working with the Saw:

- Operate the chain saw only in well-ventilated areas.
- Do not operate a chain saw when you are fatigued.
- Put the saw on the ground, making sure that there is nothing close to the bar that may catch in the chain, make sure this area is clean.
- Place your right foot in the rear handle.
- Grip the front handle firmly with your left hand.
- Pull starter handles slowly to engage starter; then apply a short, fast pull to start.
- When the saw fires, push the choke in, the saw will usually start on the next pull.
- Rev the engine briefly to release the throttle catch and let the saw idle.
- As soon as the saw starts, the chain will race around the bar. This is a dangerous time; be sure there is nothing the chain can catch and that no one is standing within 1.5 meters of you.
- Never attempt to cut branches above shoulder height.
- Carry the chain saw with the engine stopped the guide bar and saw chain to the rear, and the muffler away from your body.
- Use extreme caution when cutting small size brush and saplings because slender material may catch the saw chain and be whipped toward you or pull you off balance.
- When cutting a limb that is under tension be alert for spring-back so that you will not be struck when the tension in the wood fibres is released.
- Do not operate a chain saw in a tree unless you have been specifically trained to do so.
- When transporting your chainsaw, use the appropriate guide bar scabbard.

Falling:

- Proper planning and use of Safe Falling practices helps reduce worker exposure to work site hazards.
- ***Only competent Fallers will be allowed to work independently falling timber.***

Falling Procedures:

- Scout out the area and pre-plan falling activities.
- Plan out an escape path to a protected place, preferably 50 feet away, uphill and in back of the tree you are falling.
- Ensure that all other workers are clear of the hazardous area circle centered on the tree being felled and having a radius not less than twice the height of that tree), before beginning to fall.
- Inspect the area for snags and other hazards.
- Fall trees into natural openings.
- Deliberate and unnecessary brushing of timber shall not be tolerated.
- Be familiar with the closest point of communication and man check system.
- Only workers having duties associated with falling activities shall be allowed entry to the falling area, after obtaining permission from the faller.
- Workers shall inform the faller when leaving the hazard area.
- All falling cuts that are started must be completed.
- In the event that the felling of a tree is started and cannot be completed, the faller must mark the tree and hazard area with brightly coloured plastic tape (not to be used for any other purpose).
- Falling must stop when windy conditions affect the control of the fall of the tree.

Assessing the Tree:

- Workers must use appropriate PPE.

- All brush, debris or windfalls that may interfere with the falling process or create a hazard to the faller must be cleared away.
- Brush out escape route.
- Check to see if other standing trees or danger trees will be struck or brushed with the tree being cut falls.
- Check the tree to be felled for lean.
- Check for lean using your axe held vertical from the handle.
- Check for loose limbs, chunks, or other overhead material.
- Check for rot, cat-faces, and splits at the base.
- Check for snow load - frozen timber, etc.
- Check that all workers are clear of the hazard area.
- Ensure that you have all the tools needed for the job, including wedges and enough fuel in the saw to finish the tree falling.

Falling Cuts:

- Stand uphill or away from the lean of the tree you plan to cut.
- Have the tree fall downhill, at an angle to the slope, and escape uphill on the opposite side so it cannot slide into you.
- For large trees, establish a clean, uniform undercut approximately one-third of the tree diameter, facing the direction you wish the tree to fall.
- The opening of the undercut should be at least one-third of its depth (one inch vertical for every three inches horizontal).
- The two cuts that form the undercut must not cross where they meet, in order to prevent formation of Dutchman.
- The horizontal part of the undercut must be level and well cleaned out where the cuts meet to prevent Barber-chair and/or Dutchman.
- The back-cut must be level and sawn in slightly above the horizontal plane of the undercut (1-2 inches). This forms an anti-kickback step.
- Care must be taken not to saw off the corners and comprise normal holding wood.
- It is prohibited to hang one tree in another for the purpose of holding pressure, to eliminate wedging while working on the forward tree.
- Excessive pushing or "domino falling" will not be allowed.
- The pushing of one tree with another must only be done to overcome a specific falling difficulty and the tree or trees being pushed must have wedges driven tight into the back cut to prevent them from setting back towards the pusher tree.
- Trees that are limb bound or tied together should be felled together.
- When pushing a tree, be on the lookout for material being thrown back toward you.
- Wedges should be placed in the back cut of a tree being felled unless the tree has a pronounced lean:
  - Saw chains should be stopped when inserting wedges;
  - Saws should be shut off when wedging dangerous trees or snags.
- On heavy leaner, side notches should be used to reduce the hazard of the tree barber chairing.

Winter Falling:

- Winter conditions can create additional hazards to a faller.
- Watch for accumulation of snow on the limbs of the trees.

- Fallers must watch for ground debris located under the snow that can pivot or fly back when the falling tree strikes it.
- To reduce the stump heights, fallers are required to trample snow down or shovel snow around the base of the tree. The maximum depth allowed for this depression is 18 inches.
- The excavators may assist fallers in moving around the work area. The excavators can also hang up on branches and debris hidden under the snow thereby restricting movement at critical times.
- Dry, powder snow in the trees can cause white outs when the tree falls.
- Frozen wood becomes brittle and can result in loss of control in directional falling.
- Wedges can "pop" out when the tree is frozen. Special grooved wedges can reduce this.
- Winter conditions increase the hazard of slips and falls.
- Fallers must dress accordingly for the winter elements.

Supervisor Responsibilities:

- The competence of any worker required to fall timber will be assessed before assigning work.
- Regular observations will be made as to the faller's ability, behaviour, and performance.
- Issues will be brought to the attention of the operator.
- Fallers working alone must have a radio check in every two (2) hours maximum.

Worker Responsibilities:

- Have a copy of the work area map and emergency plan.
- Any questions on safety procedures check with supervisor.
- If you have a reasonable cause to believe that the work will cause undue hazard to yourself, another person, or the environment, report the situation to the foreman or employer before proceeding.
- Operator is responsible for a clean worksite. All garbage is to be placed in proper garbage containers.
- Know the first aid procedures, the location of the first aid equipment and the location of the attendant.
- Know where other equipment and personnel in your work area are at all times.
- When working alone, radio the medic or supervisor every two (2) hours maximum.
- When working alone, the operator must check with a designated person at the end of the shift.

Every Faller must have:

- An axe
- Sufficient wedges for the size of timber being felled (minimum 2)
- File handle, or tang bent in a loop
- Non-spill fuel and oil containers
- Spare chain, air filter and spark plug
- Fluorescent tape
- Chainsaws with a bar shorter than 26" in length must have a chain brake.
- Faller must know the location of the fire cache and have access to a 5-lb. dry chemical extinguisher.

Danger Trees:

- Danger trees present a significant hazard to workers. Operators must be familiar with the requirements of this SWP and work in a safe manner at all times.
- "Dangerous Tree" – Includes any tree that is hazardous to workers because of its location or lean, physical damage, overhead hazard, deterioration of the limbs, stem, or root system or a combination of these.
- Dangerous trees must be removed progressively with the work process, it is not acceptable to bypass a hazard tree where it will present a hazard to other workers.

Supervisor must ensure:

- This safe work procedure is reviewed with all personnel involved in line clearing operations.
- Regular inspection of right of ways will be conducted.
- Regular observations of the operations will be made; issues will be brought to the attention of workers.
- Where workers are assigned to fall danger trees an increased "person check" will be applied.

Worker must ensure:

- Any questions on safety procedures check with supervisor.
- If you have a reasonable cause to believe that the work will cause undue hazard to yourself or another person, before proceeding, report the situation to the supervisor.
- Employees will not work within the area made hazardous by a danger tree, minimum distance 2 tree lengths.
- Know the first aid procedures, the location of the first aid equipment and the location of the attendant.

General operation:

- No danger trees can be left partially cut, damaged, or in any way which would cause a hazard to other workers.
- When pioneering, danger trees that have not been taken on first pass must be removed by the operator on the way out or by a hand faller before any other work is done.
- Equipment operators must stay inside the cab of their machines when working within two (2) tree lengths of a danger tree.
- Foremen, supervisors, or anyone that is not protected by the cab of a machine must stay two (2) tree lengths away from a danger tree, unless it is their job to access or fall it.
- An experienced hand faller must fall all danger trees progressively with the other timber.
- If a machine must be worked on, and it is within 2 tree lengths of a danger tree, the danger tree must be felled before any work is done.
- All danger trees which can reach any work area must be taken down prior to commencing work.

11 CLEANING SOLVENTS, FLAMMABLES, AND HARMFUL SUBSTANCES

PURPOSE

Cleaning solvents are used in day-to-day work to clean tools, parts, and equipment. Special care must be taken to protect the worker from hazards which may be created from the use of these liquids. Wherever possible, solvents should be non-flammable and non-toxic. Please refer to OH&S Act, Regulation and Code Part 10-Fire and Explosion Hazards for more information regarding cleaning solvents and flammables.

PRACTICES

The following instructions or rules apply when solvents/flammables are used:

- Use non-flammable solvents for general clean up.
- When flammable liquids are used, make sure that no hot work is permitted in the area.
- Store flammables and solvents in special storage areas.
- Check the toxic hazards of all solvents before use, referring to MSDS sheets.
- Provide adequate ventilation where all solvents and flammables are being used.
- Use goggles or face shields to protect your face and eyes from splashes or sprays.
- Use rubber gloves to protect hands.
- Wear protective clothing to prevent contamination of clothes.
- When breathing hazards exist, use appropriate respiratory protection.
- Never leave solvents in open tubs or vats, return them to storage drums or tanks.
- Ensure that proper containers are used for transportation, storage, and field use of solvents/flammables.
- Where solvents are controlled products, ensure that all employees using or in the vicinity of, use, or storage, are trained and certified in the Workplace Hazardous Materials Information System (WHMIS).

A number of harsh chemicals are used in most shops. The Workplace Hazardous Materials Information System (WHMIS) is a program designed to provide information to everyone working with potentially harmful material. WHMIS provides information through labeling, safety data sheets (SDS), and training sessions. OH&S Schedule 1 Table 2 identifies numerous substances, and their time exposure limits. At no time are any Priestly Demolition Inc. workers allowed to exceed exposure times to a substance as listed in Schedule 1 Table 2 of the current OH&S Code.

Potentially harmful substances can be safely used by following safe work procedures, product labeling information, manufacturer's directions, and MSDS information.

Carbon Monoxide

Carbon Monoxide (CO) is produced by all engines and welding processes. CO has no odor to provide a warning. Overexposure to CO can be caused by running equipment in poorly ventilated areas. Areas with operating equipment should have an effective ventilation system which can reduce CO levels to permissible concentrations.

Hydrogen Sulfide

Hydrogen Sulfide gas (H_2S) has a rotten egg smell. A low concentration will irritate the nose and eyes. A high concentration can kill almost instantly. Workers working in the oil, gas, and sulfur industries should become familiar with H_2S's hazardous properties and the safe work procedures required when working in these areas. At no time may a worker be exposed to H_2S at a concentration exceeding its ceiling limit of 15 ppm without respiratory equipment.

Sulfur Dioxide

Sulphur dioxide (SO_2) is a colourless gas at room temperature and a colourless liquid when pressurized or cooled. It is a non-flammable, very soluble gas with an irritating, pungent acid odour and taste. SO_2 has many industrial and agricultural uses and is derived from the combustion of sulphur-containing fossil fuel. SO_2 gas is produced as a by-product during the smelting and converting processes. When released into the environment, sulphur dioxide moves into the air. In the air, it can be converted to sulphuric acid, sulphur trioxide, and sulphates.

SO_2 dissolves easily in water and can react with moisture on the skin and other moist surfaces of the human body to form sulphuric acid. Occupational exposure to SO_2 can occur via inhalation, skin and/or eye contact. Symptoms of exposure to SO_2 could include irritation of the eyes, nose, and throat; rhinorrhea (discharge of thin mucus); choking; cough; and reflex bronchoconstriction. At no time may a worker be exposed to SO_2 at a concentration exceeding its 15-minute ceiling limit of 5 ppm without the use of respiratory equipment.

Solvents

Many different solvents are used and handled in the service shop and paint shop. Each solvent has specific hazards and handling precautions, which must be followed. There are also a number of general rules which must be followed.

- Wear the appropriate personal protective equipment. The kind of protective equipment required will vary, but should include gloves, apron, and in some case a respirator with an organic vapor chemical cartridge.
- Do not use gasoline or other volatile fluids for cleaning.
- Never use any type of solvent in a spray device or air gun unless you are outside or in a well-ventilated area (i.e., paint shop) and you are wearing a respirator with an organic vapor chemical cartridge.
- Store solvents in approved containers which have all safety devices in proper working condition.

Acids and Caustics

Acids and caustics are very corrosive. Keep them off your skin by always wearing gloves, rubber boots, and aprons. Keep from contact with eyes by wearing chemical resistant goggles or a face shield.

Emergency eye wash and/or shower facilities are to be located where acids and caustics are handled. Caustics are very difficult to remove from eyes or skin. Emergency washings for caustics must continue for at least 15 minutes.

12 CONFINED SPACE

A confined space is defined as a work area where entry and exit are restricted by location, design, or construction and where equipment, operations, or atmospheres may pose hazards to health and safety. Examples of where confined spaces are in the roofing industry are asphalt tankers or waterproofing in enclosed or below grade work locations.

PHYSICAL hazards of confined spaces include:

- Poor entry or exit
- Cramped work conditions
- Extremes of temperature
- Operating equipment
- Reactive or corrosive residues
- Electrical, hydraulic, and pneumatic hazards

Hazardous **ATMOSPHERES** in confined spaces include:

- Flammable
- Explosive
- Toxic
- Oxygen-enriched
- Oxygen deficient

Confined Space Entry
Employees will adhere to the following safe work practices when working in confined spaces to prevent an accident or incident.

No workers will enter a confined space until:

- The workers have been appropriately trained.
- The confined space has been tested to determine the nature and quantity of harmful vapours, gases, fumes, mists, dusts, and oxygen deficiency and these results have been recorded. Written work procedures must then be established to ensure a safe environment for the worker.
  Note: Testing will be done by a trained and competent worker with the appropriate equipment.
- When tests indicate unsafe conditions, the space will be ventilated or cleaned and retested to ensure that the harmful substances are at or below levels stated in the WCB regulation and the oxygen content is greater than 18% before a worker enters the confined space.
- When tests indicate the presence of harmful or explosive substances, and it is not practical to provide a safe, breathable atmosphere:
  - Workers will wear respiratory equipment and PPE.
  - The concentration of flammable substances will be maintained below 20% of the lower explosive limit.
  - When flammable or explosive gases or liquids are present, all sources of ignition will be eliminated or controlled.
  - Workers will wear full body harnesses attached to a lifeline, which will keep the worker in a position to permit rescue. An attendant will be stationed outside the confined space and be equipped for and capable of effecting rescue.

- A worker in a confined space will, always, be in communication with the attendant outside the confined space.
- When workers are in a confined space, the space will be continuously ventilated and re-tested.

14 CONTRACTOR/SUB-CONTRACOR MANAGEMENT

In the selection process of contractors/sub-contractors for Priestly Demolition Inc., management will ensure that all contractors/sub-contractors have current and valid WCB coverage, insurance documentation, and valid training certificates. These documents must be provided to Priestly Demolition Inc. for record keeping.

Management will request health and safety statistical information from all contractor/sub-contractor companies considered. WCB rate sheets will suffice for this type of requested information in Canada. Other forms of safety metrics such as TRIR and Experienced Modification Rate will also be used as criteria for selecting sub-contractors. All information requested and provided by the contractor/sub-contractor will be evaluated to assist in the selection of hiring safe contractors/sub-contractors.

All contractor/sub-contractors will receive a site orientation to review requirements, responsibilities, and policies while working for Priestly Demolition Inc. The Owner Client Drug and Alcohol Policy will be highlighted specifically to ensure understanding and compliance. Orientations will be documented and kept on file.

In the event that the contractor/sub-contractor does not possess a Health and Safety Program, or the existing Health and Safety Program does not meet the requirements of the Priestly Demolition Inc. program, the company must agree to abide by Priestly Demolition Inc. Health and Safety Manual and all its components. All main applicable information regarding the Priestly Demolition Inc. safety program will be reviewed in the safety orientation. The contractor/sub-contractor is required to be familiar with the entire program.

All safety meetings, hazard assessments, risk assessments, inspections, etc., must be attended by all contractors/sub-contractors on site. The safety documentation will be signed by all involved parties to indicate understanding and compliance.

In the event of an incident or accident involving a contractor/sub-contractor, Priestly Demolition Inc. will file a report to the Owner/Client of the project. If an investigation is required for the incident, contractors/sub-contractors will abide by and participate in all processes of the investigation. Priestly Demolition Inc. will perform post job evaluations for contractors/sub-contractors to review job and safety performance. These evaluations will be taken into consideration when selecting contractor companies for future projects.

15 COMPRESSED AIR

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to compressed air. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

PSI: Pounds per square inch.
kPa: Pa is the derived unit of stress of pressure, kPa is 1000 Pa units.
Psig: Pounds of force per square inch of surface area with the gauge adjusted to zero.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instruction and training to workers on protection requirements.
- Perform hazard analyses.
- Perform work site inspections.

WORKER

- Inspect all hoses and components before use.
- Follow all safe work practices in the Priestly Demolition Inc. policy manual.
- Follow all manufacturer specifications.

PRACTICES

Compressed air can cause serious and even fatal injuries if it is not used properly. Most compressed air lines carry a pressure of 551 to 896 kPa (80 to 130 psig). The human body will not withstand more than 41 psig. Never under any circumstances should compressed air be blown on a person's clothing or body.

- Ensure that air hoses are secured properly to prevent accidental disconnection.
- Use all required personal protective equipment such as long sleeves and pants, eye protection, and all other personal protective equipment that is required for your work site.
- Ensure that others in the work area are aware that you are using compressed air and that they are aware of the potential hazards.
- Compressed air must never be used to blow off clothing or used to cool off a worker. Never blow compressed air onto yourself or others for any reason.
- Turn off the compressed air and relieve the pressure from the air hose before disconnecting hoses or tools or changing tools.
- All hose connections must be the quick disconnect with pressure release type with a safety chain or cable.
- Inspect all hoses regularly for cuts, bulges, or other damages. Ensure that any damaged hoses are tagged out for repair. Review the section on tagging and locking out.
- Use a proper pressure regulator and a relief device to ensure that a safe and desired pressure is maintained.

- Treat hoses and air tools with respect to prevent incidences or injuries.
- Only use air hoses and tools that are rated for the maximum pressure of the source of the compressed air, either the compressor or the regulator.
- Follow the manufacturer's guidelines for use and maintenance for hoses, tools, regulators, and all other components in use.

16 COMPRESSED GAS CYLINDER HANDLING AND STORAGE

Safety Equipment:

- Steel-toed footwear
- Gloves
- Dolly with safety chain

Hazards:

- Dropping cylinder
- Damaging cylinder or regulator
- Injuries to lower body

Practice:

- The following types of compressed gas cylinders use this handling procedure:
  - HCL
  - CL2
  - Oxygen
  - Acetylene
  - Breathing air
  - Propane
- When unloading cylinders from truck, they should not be dropped. They must be prevented from falling over or against each other.
- When moving cylinders, use a hand truck (dolly) with a safety chain 2/3 of the way up the cylinder.
- An experienced operator can safely roll the cylinder on its bottom.
  - When rolling the cylinder in this manner, it should not get out of control and fall.
  - The protective bonnet should not turn loose.
  - When compressed gas cylinders are handled, the protective bonnet should only be removed when the gas line valve assembly is to be hooked to it.
- When moving propane cylinders, use either a hand truck (dolly) or lift them by hand when possible.
- Do not drop cylinders or let them fall against each other.

Storage:

All compressed gas cylinders should be stored in upright position and secured in place using a safety chain.

CRANE SAFETY

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to crane safety. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

Priestly Demolition Inc. supervisors shall ensure that all workers are properly trained and competent to work with cranes. Furthermore, supervisors will inspect work sites and conduct a hazard analysis to ensure that the work site is as safe as possible.

WORKER

Mobile cranes may be operated by a journeyman crane operator or by an apprentice crane operator participating in the apprenticeship program. Workers who operate stationary overhead cranes or portable electric chain hoists must be trained in the safe operation of this equipment.

A worker must not operate a lift truck unless that worker:

- Is trained to safely operate the equipment;
- Has demonstrated competency in operating the equipment to a Priestly Demolition Inc. supervisor;
- Is familiar with the equipment's operating instructions; and
- Authorized by Priestly Demolition Inc. to operate the equipment.

All those who work with cranes must be familiar with the safe work practices associated with cranes.

PRACTICES

This section covers key aspects of crane safety, including safe maintenance and operating practices, as well as commonly accepted crane hand signals.

PREPARING THE WORKSITE

Before a crane can perform an operation, there are a variety of safety considerations to be aware of. Ensure that these safe work practices are met when preparing to work with a crane.

- Rope off the area within the lift radius of a mobile crane and post warning signs. This includes the swing area of crane counterweight.
- Be aware that large equipment may require a Movement Order Permit (MOP). Notice of MOP must be posted in the crane cabs for:
    - Units in excess of 12 feet in height from road/ground surface.

- Units 60 feet in length, including tractor.
- Units in excess of 8 feet in width.

- Maintain the following clearance from overhead power lines when operating cranes or other equipment:

  - 0 to 50,000 volts 10 feet
  - 50,000 to 250,000 volts 15 feet
  - Over 250,000 volts 20 feet

WORKING WITH THE CRANE

- Know the Occupational Health and Safety (OH&S) approved hand signals for communications when lifting loads on a crane. The signaler and crane operator must agree on a signal system. See the “Know Your Signals” portion of this section for details.
- Do not lift unbalanced loads or pull loads sideways.
- Do not lift loads over workers.
- Never leave a load suspended with the crane unattended.
- Leave all controls in neutral, the brakes locked, and the rotation lock engaged when the crane is shut down.
- Do not walk under the boom of a mobile crane if the crane is holding a load.
- Stand clear of loads being lifted. A tail rope must be attached to control the load when other means cannot be used or are not safe to use.
- Never ride on the blocks, hooks, or ball of the crane or on rough terrain while lifting equipment.
- Operate cranes with all outriggers fully extended and set on pads.
- Station a boom walker to direct the crane operator when moving the crane.

KNOW YOUR HAND SIGNALS

STOP
Extend one arm and hold palm vertical.
NOTE: EMERGENCY STOP is indicated by holding both arms up.

STOP (B)
Arm extended, palm down, move hand right and left. Usually for different level operations.

HOLD EVERYTHING
Clasp hands in front of body.

MOVE SLOWLY
Place one arm motionless across chest in conjunction with or before giving any other directional signal. ('Hoist slowly') shown as example).

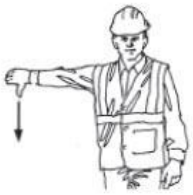
HOIST
With forearm vertical, forefinger pointing up, move hand in horizontal circles.

LOWER
With arm extended downward, forefinger pointing down, move arm in horizontal circles.

USE MAIN HOIST
Tap fist on head, then use regular signals.

USE FLYLINE
(Auxiliary Hoist)
Tap elbow with one hand, then use regular signals.

RAISE BOOM
(Luff Up)
Arm extended, fingers closed, thumb pointing upward.



LOWER BOOM
(Luff Down)
Arm extended, fingers closed, thumb pointing downward.

SLEW
Arm extended, point with finger in direction of swing of boom.
OVERHEAD GANTRY CRANE - Arm extended point with finger in the long travel or cross travel direction.

RAISE THE BOOM & LOWER THE LOAD
One arm extended, fingers closed, thumb pointing upward. Other arm extended downward with forefinger pointing down, move arm in horizontal circles.

LOWER THE BOOM & RAISE LOAD
One arm extended, fingers closed, thumb pointing downward. Other arm vertical with forefinger pointing up, move arm in horizontal circles.

EXTEND HYDRAULIC BOOM OR TROLLEY
OUT (Tower Crane) Both fists in front of body with thumbs pointing outward.

RETRACT HYDRAULIC BOOM OR TROLLEY IN
(Tower Crane)
Both fists in front of body with thumbs pointing toward each other.

TRAVEL
Arms bent at the elbows, fists clenched, rotate both forearms around each other, then point in the direction of travel.

TRAVEL
(One track - Crawler cranes only)
Lock the track on the side indicated by the closed fist. Travel opposite track in the direction indicated by circular motion of other fist rotated vertically in front of the body.

FINISHED WITH CRANE
Place arms above the head and cross hands.

IMPORTANT - KNOW THE CORRECT SIGNALS.
Make sure you, the OPERATOR and the person giving signals understand THESE SIGNALS.

TAKE HAND SIGNALS FROM ONE PERSON ONLY

17 DEFECTIVE TOOLS

Defective tools can cause serious and painful injuries. This safe work practice will highlight practices to employ to reduce the risk associated with defective tools in the workplace.

Potential Hazards

The following is a list of potential hazards:

- Fire due to overheating of a defective tool or sparks from a faulty cord;
- Personnel risks from flying or broken parts, rendering of guards ineffective, hand injuries due to tools not working as designed, or shock from faulty wiring; and
- Incorrect usage due to partially damaged tool resulting in poor work quality.

Detective 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 mushroomed heads;
- Split or cracked handles;
- Chipped or broken drill bits;
- Wrenches with worn out jaws;
- Tools which are not complete, such as files without handles;
- Broken or inoperative guards;
- Insufficient or improper grounding due to damage on double insulated tools;
- No ground wire (on plug) or cords on standard tools;
- The on / off switch not in good working order;
- Tool blade is cracked; and
- The wrong grinder wheel is being used, or the guard has been wedged back on a power saw.

To ensure safe use of hand tools, remember:

- Never use a defective tool;
- Double check all tools prior to use; and
- Ensure defective tools are repaired.

Air, gasoline, and electric power tools require skill and the operators' complete attention, even when they are in good condition. Don't use power tools when they are defective in any way. All defective tools should be reported to your immediate supervisor / manager.

Remove all defective tools from the work area and mark, "DEFECTIVE – DO NOT USE."

18 DOZER OPERATION

Purpose:

- All Bulldozers must be in good condition, properly equipped and operated in a safe manner.
- Operators must be familiar with the requirements of this SWP and operate the Bulldozer in a safe manner at all times.
- Bulldozers that are not operated in a responsible manner present a hazard to the operator, other workers, and the environment.

Supervisor Responsibilities:

- All machines will be inspected prior to work starting at a new location.
- The Bulldozer will be equipped with Basic First Aid kit, fire extinguisher, axe, and shovel.
- Regular inspections will be conducted.
- Regular observations will be made as to the operation of the machine; issues will be brought to the attention of the operator.
- Ensure all personnel are communicated with every two (2) hours maximum.

Worker Responsibilities:

- Have a copy of the work area map and emergency plan.
- Any questions on safety procedures should be checked with the foreperson.
- If you have a reasonable cause to believe that the work will cause undue hazard to yourself, another person, or the environment, report the situation to the foreman or employer before proceeding.
- Operator is responsible for a clean worksite. All garbage is to be placed in proper garbage containers.
- Know the first aid procedures, the location of the first aid equipment and the location of the attendant.
- Know the location of and how to use a “Spill Kit”.
- Know where other equipment and personnel in your work area are at all times.
- Check in every two (2) hours, or more often, as designated by the foreman.
- When working alone, the operator must check with a designated person at the end of the shift.

PPE Requirements:

- High visibility hard hats must be worn when working around machines.
- High visibility vests must be worm at all times when working around the machine.
- Hearing protection, appropriate to the hazard, must be in good condition and worn properly.
- Operators must wear CSA approved footwear, traction soles, and adequate ankle support.
- Gloves and safety glasses must be worn during maintenance.
- Highly recommended to wear safety glasses at all times due to potential of debris such as ‘loaded’ trees flying towards the operator.

Daily Inspection:

The operator must conduct a daily safety check that will include;

- Radio
- Cab free of loose objects

- Horn
- Tracks
- Cutting edges
- Rear view mirrors,
- Windows, guarding
- Steering
- Brakes
- Hydraulic or fuel leaks
- General mechanical condition

General Operation:

- Seatbelts must be worn when the machine is in operation.
- When leaving the machine, lower the blade and ripper, and apply the parking brake.
- Ground the blade or turn out when being passed by equipment or workers on foot.
- Use the three-point position while getting on and off the machine. DO NOT JUMP.
- Doors must be closed when in operation.
- Guards and doors shall be installed and maintained as per WCB regulations.
- Use proper lock out before attempting to service the machine.
- Operator must be properly seated in the cab before attempting to use (hydraulic) controls.

Cutting:

- The distance between the bulldozer at work and other workers shall not be less than 300', except where there has been approval of the supervisor and then it must not be less than two (2) tree lengths.
- Stop and ground the blade when anyone approaches the machine.
- Bulldozer operators must stay inside the cab of their machine when working within two (2) tree lengths of a danger tree.
- Forepersons, supervisors, or anyone who is not protected by the cab of a machine must stay two (2) tree lengths away from a danger tree, unless it is their job to fall it.
- An experienced hand faller must fall all other danger trees progressively with the other timber.
- If a machine must be worked on, and it is within 2 tree lengths of a danger tree, the danger tree must be felled before any work is done.
- Comply with the terrain assessment guidelines provided during all operations.

When the safety of the operator of bulldozer could be adversely affected due to:

- The steepness of the terrain
- Ground conditions
- Weather conditions

The operator must not operate in the area presenting a hazard and report the situation to the supervisor. Track grousers may improve performance in certain conditions.

Slope Angle:

- Generally, the maximum slope angle of 40% should be observed for the limit of operation of the machine.
- Under specified situations, machines will be allowed to exceed the slopes specified above (without constructing skid trails). These may include a combination of the following conditions:

  - The machine can operate traveling straight up and down the slope.
  - The machine can use a climbing trail to get to the top then work straight down the hill.
  - The length of the slope is short, less than three (3) lengths of the Bulldozer.
- Under these specified situations, the maximum slope shall not exceed 55%
- Keep the blade or turn close to the ground.

Environmental Concerns:

- Do not damage trees that must be left standing as per plans and permits.
- Operators must:
  - Ensure soil disturbance does not exceed level called for in plans.
  - Not harvest or damage trees that must be left standing as per plans and permits.
- Stop work and contact your supervisor if you come across anything not identified on a construction plan (e.g., archaeology site, wildlife at watering holes and nests of endangered birds such as an eagle).
- Always comply with the construction plan.
- Do not harvest or damage trees that must be left standing as per plans and permits.
- Do not fall unless you understand the local ribbon code. If marking is unclear, stop and consult the supervisor.
- No temporary stream crossings unless authorized by the Forest Service in writing.
- Do not slash in streams, lakes, wetlands, and meadows.
- Do not pile slash against standing trees.
- Do not operate equipment within 15 m of streams, wetlands, meadows, and lakes unless instructed by the supervisor.
- Machines must not operate in a manner, which could cause excessive soil disturbance.
- Do not operate in wet weather if rutting results, check with supervisor.
- Operator must have an accurate and approved map in bulldozer at all times.
- Operator must ensure the map is consistent with the ribbons on the ground. When in doubt, stop and get clarification from supervisor.
- Operator must have a diary in bulldozer to note any special instructions or changes that were discussed with supervisor.
- Report any injuries, incidents, or environmental concerns to your supervisor immediately.
- Report any mechanical faults to your supervisor immediately.

Mounting/Dismounting Dozer Attachments:

- Cat operator must be assisted by a helper to mount/dismount the attached equipment.
- The assistant will not approach the Cat until the operator signals that it is safe to do so.
- The operator will brief the assistant on all hazards and proper procedures for the mounting/dismounting of the rake/blade.
- Ensure the arm swing danger area is pointed out.
- The assistant will not at any time enter the danger area.
- If necessary, the assistant will use only a Cat bar to pry the rake/blade arm trinion pins clear of the C frame trinion pin holder.
- Good eye contact and communication must be maintained between the operator and the assistant at all times.
- The cat operator will refrain from use of the controls when the assistant is in physical contact with any part of the equipment.

NOTE: Operators to make sure dozer or attachments are on level ground when mounting/dismounting attachments. When equipment is off loaded, it should be left on level ground to ensure safe access.

19 ELECTRICAL HAZARDS

Using proper safety procedures when working with energized electrical equipment is necessary. Work with your supervisor and co-workers to ensure a proper safety attitude.

- Keep a safe working distance between any materials or equipment and power lines.
- Educate all involved so they are aware and respect the power of electricity. This includes knowing that direct contact with the line is not necessary to become injured.
- Ensure all electrical tools, equipment, and extension cords are in good repair and properly grounded. Do not use any tool or cord where the ground prong has been removed.
- Ensure that all electrical circuits are de-energized and properly locked out before work on any electrical system or equipment is performed. Never remove another worker's lock and re-energize a system without that person's knowledge or approval.
- Only trained and authorized workers are to perform work in electrical rooms. This includes any activation or de-activation of breakers or switches. Any repairs to electrical tools or equipment should only be done by competent and qualified workers.
- Never stand directly in front of a panel when activating breakers. Be aware of the potential for an arc flash. Safety glasses and fire-resistant clothing should be worn when activating switches and breakers.
- Never use an aluminium ladder when working around electricity.
- Always be aware of the voltage requirements of your tool or equipment and ensure it is connected to the proper circuit.
- Always remove or protect electrical cables or lines from your working area if there is a risk of material falling and damaging the cables.
- Do not come in to contact with any materials, equipment or another worker who is in contact with an electric current. Use a nonconductive object such as an unpainted broom handle or piece of dry lumber to break the circuit.
- Any contact with electricity is a life-threatening injury and immediate first aid and transport to medical assistance is required.
- Do not use electrical tools or equipment in areas with excessive moisture or in areas with explosive concentrations of gases.
- Do not use water extinguishing methods to put out an electrical fire unless you are certain the circuit has been de-energized.

Report any problems with electrical tools, equipment, lights, or plug-ins to your supervisor immediately. This includes any overheating, smell, smoke, or improper operation of the appliance.

20 EQUIPMENT GUARDS

PURPOSE

Equipment guards are a key part of worksite safety efforts. Guards help to prevent many types of accidents and injuries. Please refer to OH&S Act, Regulation and Code Part 22-Safeguards for more information regarding equipment guards.

PRACTICES

- No “slip-ups”. The purpose of a machine guard is to keep your clothes or body from contacting any dangerous moving parts of the machine. A proper guard prevents injuries and keeps many “slip-ups” from becoming more serious.
- Removing guards from machinery, except for temporary removal for maintenance and repairs, is strictly prohibited.
- Operations - a guard should be easy to operate with minimum effort. It should also be suitable for the job and the machine. Guards with rough edges can be a safety hazard on their own.
- Signs and protective equipment - always wear proper personal protective equipment. Face shields, helmets, gloves, and other gear that add to personal protection should be worn. Proper signage should always be posted to warn about equipment hazards.

21 EXCAVATORS

Supervisor Responsibilities:

- Supervisors will inspect the condition and required equipment of any newly hired excavator prior to work commencing.
- The Excavator will be equipped with Basic First Aid kit, Fire extinguisher, axe, and shovel.
- Any Excavator equipped with a grapple or thumb must have a full guarding package.
- Supervisors will regularly observe the operation of the Excavator and bring identified issues to the attention of the operator or their supervisor.

Operator's Responsibilities:

- Operators must be familiar with the requirements of this safe work practice and operate the Excavator in a safe manner at all times.
- Any questions on safety procedures check with supervisor.
- Have a copy of the work area map and emergency plan.
- If there is reason to believe that the work will cause undue hazard to the operator, another person, or the environment, work must stop, report situation before proceeding.
- Know the first aid procedures, the location of the first aid equipment and the location of the attendant.
- Know the location of and how to use a "Spill Kit".

Personal Protective Equipment:

- HIGH VISIBILITY hard hats and HI VIS vests must be worm at all times when in an active construction area or when exposed to traffic.
- Hearing protection, appropriate to the hazard, in good condition, worn properly.
- Operators must wear proper footwear; this consists of CSA approved footwear, traction soles, and adequate ankle support.
- Gloves and safety glasses must be worn when handling tools or doing maintenance.

Daily Inspection:

- The operator must conduct a daily safety check that will include;
  - Radio
  - Cab free of loose objects
  - Escape hatch free
  - Horn
  - Tracks
  - Rear view mirrors, windows
  - Steering
  - Brakes
  - Hydraulic and fuel leaks
  - General mechanical condition

Operation Procedures:

- All Hydraulic Excavators (Excavators) must be in good condition, properly equipped, and operated in a safe manner.
- Seatbelts must be worn when the machine is in operation.
- When leaving the machine, lower the boom and apply the parking brake.

- Operator should always remain aware of obstruction in the rear swing area of the machine
- Use the three-point position while getting on and off the machine. Do not jump.
- Guards and doors shall be installed and maintained as per WCB regulations.
- Use proper lock out before attempting to service the machine.
- Operator must be properly seated in the cab before attempting to use (hydraulic) controls.

Operators must:

- Ensure soil disturbance does not exceed level called for in plans.
- Not fall or damage trees that must be left standing as per plans and permits.
- Not cross streams.

Used as Excavator:

- When working within a distance equal to the depth of the excavation, tracks must be at right angles to face of excavation, unless adequately slopped (3:4)
- When working against a face, the face will not exceed the reach of the excavator unless adequately slopped (3:4)
- Brow and the face of excavation will be kept free of hazards (overhang, rocks, stumps, danger trees, etc.).

Standards:

Excavations shall be in accordance with the written instructions of a professional engineer when:

- The excavation is more than 6 m or 20 ft. deep.
- Support structures are used in the excavation.
- An improvement or structure is adjacent to the excavation.
- The excavation is subject to vibration, or hydrostatic pressure which is likely to result in ground movement hazardous to workers.
- The ground slopes away from the edge of the excavation at an angle steeper than 3 horizontals to 1 vertical.

The written instruction shall:

- Be certified by a professional engineer.
- Be available at the work site.
- Specify the support and sloping requirements and the subsurface conditions expected to be encountered.

Underground Utilities:

Prior to excavating, or drilling with powered tools and equipment, the location of all underground utility services in the area shall be:

- Accurately determined.
- Any danger to workers from the services controlled.

Excavation or drilling work in proximity to an underground service shall be:

- Undertaken in conformity with the requirements of the owner of the service, and this company.

When powered equipment is used for excavating it shall be:

- Operated so as to avoid damage to underground utility services.
- Or danger to workers.

Note: Pointed tools shall not be used to probe for underground gas and electrical services.

Sloping and Shoring:
Prior to a worker entering any excavation over 1.2 m (4 ft.) in depth, or while in the excavation, approaches closer to the side, or bank than a distance equal to the depth of the excavation, Priestly Demolition Inc. ensures:

- That the excavation sides will be sloped, or supported as specified by a professional engineer,
- Or the sides of the excavation will be supported in accordance with the specifications of legislation.

Safe Shoring Procedures:
It is not the policy of Priestly Demolition Inc. to perform shoring and /or allow workers to enter a trench when shoring is used.

- Shoring materials shall be installed from the top down and removed in reverse order.
- Workers shall not enter an excavation to remove shoring materials when:
- Ground conditions have deteriorated so as to make entry for shoring removal unsafe.

Shoring, manufactured, or prefabricated support systems shall be:

- Installed in firm contact with the faces of the excavation, and
- In a manner which ensures no loss of soil from behind, below the bottom of the shield, or shoring while the excavation is open.

Voids between the shoring and the excavation face shall be:

- Backfilled or blocked, or unless otherwise indicated in writing, by the manufacturer, or a professional engineer.

Entry and Exit:
A safe means of entry and exit shall be provided for any excavation a worker enters. When workers are required to enter a trench over 1.2 m or 4 ft. deep, the safe point of entry and exit shall be:

- Located within 8 m or 25 ft. of the workers
- Safely supported, or sloped to the entry and exit location
- Walkways shall be secured to prevent dislodgement.

The open side of an access route into an excavation used by mobile equipment shall have a curb.

Guarding:
When an excavation is a hazard to workers, it shall be effectively covered or guarded.

Excavated Materials:
Priestly Demolition Inc. ensures excavated materials shall be kept back:

- A minimum distance of 60 cm or 2 ft. from the edge of a trench excavation
- And 1.2 m or 4 ft. from any other excavation.

Under no circumstances may excavated material be piled so that it endangers workers.

Scaling and Trimming:
The sides of an excavation shall be scaled, trimmed, or otherwise stabilized to prevent slides of materials, or falls of rock, which could endanger workers.

Water Accumulation:
Water shall not be allowed to accumulate in an excavation when it might:

- Affect the stability of the excavation
- Endanger workers.

The erosion of slopes by surface water shall be prevented when workers may be endangered.

Used for Lifting/Hoisting:

- Operator must have available, and be able to interpret, the required load charts.
- Attachments of cables, slings, or other lifting equipment must be to a secure connection.
- No lifting will be done using the bucket teeth as a connection point.
- No personnel may ride the lift.
- Lift will not be moved over top of workers.
- Operator must know the weight of the lift.
- Operator will have direct contact with supervisor or worker who is directing the lift.
- Where radios are used to direct a lift, they must be free from cross-transmission by other units.

Reporting:

- Operators of Excavators must report all accidents, near misses, and environmental concerns to their supervisor.
- Report mechanical faults to supervisor.

22 EXTENSION CORDS

General:

- All portable extension cords must be of the outdoor type, rated for 300 volts, and have an insulated grounding conductor.
- All extension cords will be CSA approved and inspected before use.
- Defective cords must not be used. They must either be destroyed or be tagged and removed from the worksite until repaired.
- Extension cords must be protected during use to prevent damage from sharp edges, movement of materials, and flame cutting.

Extension cords can cause serious accidents if the following practices are not followed.

- All electrical extension cords must be designed for external use and CSA approved.
- All extension cords will be inspected before use.
- Extension cords are to be protected against damage.
- All extension cords are to be placed in such a way that they will not be a tripping or falling hazard.
- All extension cords used in hazardous areas or in damp locations are to be protected by approved ground fault protection.
- All frayed, cut, or spliced extension cords are to be tagged and removed from service.

DO:

- Check extension cord for UL mark or symbol
- Ensure that the extension cord is adequate for its intended use and the appliances to be plugged in
- Use a three-pronged extension cord when using heavy-duty tools
- Always match the wide blade of the plug with the appropriate outlet slot
- Check extension cords regularly for any damage or worn insulation, loose or exposed parts, or splices
- Unplug, and discard damaged cords
- Make note of extension cords that become hot when plugged in, if this occurs, then unplug immediately and use a heavier cord. If the problem persists, unplug the cord – block the outlet from being used and have an electrician assess the outlet.
- Extensions cords should only be used in dry locations. If water is introduced, turn off the appliance or equipment and unplug the cord
- Use the appropriate length of cord, a cord that is too long may become tangled which could possibly lead to overheating or become a tripping hazard
- Always unplug extension cords when they are not in use
- Always unplug an extension cord from the plug, never by pulling on the cord itself
- Always unroll or uncoil an extension cord to avoid heat retention and possible melting

DO NOT:

- Do not force a three-pronged plug into a two-pronged outlet or extension cord.
- Do not force an extension cord into small spaces (i.e., behind furniture)
- Do not put too many electrical cords together as they may overheat and cause a fire
- Do not connect more than one extension cord together. If more are needed, get a cord that is long enough to do the job without stretching it
- Do not use or store interior extension cords outside and are not to be exposed to temperatures below zero
- Do not use extension cords across areas where people walk
- Do not run an extension cord under a doorway, as the door crossing the cord may damage the insulation
- Do not run an extension cord under carpet or rugs, as the weight and friction of people walking over them may lead to damage as well as increased risk of electrical shock or fire
- Do not use a staple or nail gun to secure extension cords
- Do not plug extension cords into a power bar.

23 FALLING OR STRUCK BY AN OBJECT

Employees will make every effort to minimize the potential for tools, materials, or equipment falling onto fellow employees, other workers, the public, or on property.

The following methods will be used to minimize the potential of an injury from falling objects:

- Schedule high-risk conditions (disposal, perimeter metal application, roof cutting, material loading, etc.) when the number of workers or the public is minimal.
- Employees using hammers, screw drivers, or other hand tools on the outside face of roofs or decks will keep tools dry, in pouches when not being used, and take extra caution with the tools.
- Signs indicating the hazard of men working above will be posted on the floor below if tools or materials can fall down or through the roof or decking, roof vent, or openings.
- Materials, especially light insulation, will be secured from movement due to high winds during and after the workday.
- Materials, tools, or equipment will not be stored or left on parapet walls, or locations where they could be easily knocked over.
    - Employees cutting deck openings will post a spotter below the opening to ensure workers or the public do not enter the area. Deck opening covers are not permitted to free-fall. Fastening devices, vise grips, or rope will be used to ensure deck opening covers do not free-fall.
    - Employees loading tools or materials on roofs with any slope will ensure that loads are resting on leveling blocks that are nailed into trusses, not lumber that has been slipped under the materials.
    - Employees who are required to wear hardhats at elevated edges are required to wear chinstraps to ensure the hardhat cannot fall onto workers or the public below.
    - Barricades or fencing will be set up at the disposal bin, ground hoisting areas, and other areas where other workers or the public should not enter. Signs indicating a hazard above will be posted.

15 FALL PROTECTION

Types of anchors to be used for the following fall protection areas are as follows: carabiners, engineered lugs, and designated lifting points (i.e., manlift basket).

When working from scaffolding:

- All scaffold platforms should be erected and conform to CSA and OH&S standards including proper bracing, supports, tagging, and commercially manufactured planks.
- Guardrails around the full perimeter of the platform consisting of a top rail and mid-rail. Toe boards are required whenever the working platform is 3.0 m (10 ft) or more above ground level.
- Wheels and casters must be securely fastened to the scaffold and locked when personnel are working on the scaffold. Wheeled scaffold should not be moved with someone on it.
- It is preferred that all personnel working on scaffolding greater than 3.0 m wear a full body harness and fall arrest protection.

When working from a boom-supported aerial device (manlift), or telescopic forklift truck work platform:

- All mobile equipment should be up to date and certified to handle lifting load.
- All maintenance records in logbook shall be up to date and attached to the equipment or in supervisor's office.
- Equipment shall only be operated by an individual who has been deemed competent by the supervisor and has gone through all applicable training.
- When working above 3.0 m, it is required that a full body harness and fall arrest protection is worn.
- Ensure that equipment riggers are set when elevating boom and working from the aerial device. Vehicle is not to be in motion while work is being done from the elevated platform.
- Watch for clearances before raising the boom or platform. Stay away from overhead power lines.

When working from portable ladders:

A worker must wear a full body safety harness with the lanyard tied off to either a fixed support or a lifeline whenever:

- Their feet are 3.0 m (10 ft) or more above the floor;
- They are above operating machinery; or
- They are above hazardous substances or objects.

Working off ladders attached to scaffolding is NOT permitted.

Supervisor Responsibilities

- Facilitating and providing proper instruction to their workers on protection requirements.
- Job Hazard Analysis approval, work site inspection, FAS Inspections.
- Determine type of equipment required.
- Issuing permits and developing pre-plans for high-risk applications.

Personnel Responsibilities

Due to recent changes in OH&S Legislations, Priestly Demolition Inc. has implemented a Fall Protection Permit System. All personnel are required to obtain a Fall Arrest System (FAS) permit before proceeding with work at critical heights.

- Be professionally trained and certified with fall protection system.
- Ensure you know the capabilities of fall protection equipment. Worker MUST INSPECT harness for defects BEFORE EACH USE.
- Ensure barricades, pylons, and signs identify restricted areas.
- Ensure you understand the procedures for rescue of workers who may be unable to rescue themselves from an elevated work area.
- Ensure you know your APPROVED engineered anchor points.
- Review all applicable SWP's and SJP's.
- Ensure you do not wrap the lanyards and/or rope around beams, girders, pipes, etc.
- Before going up, worker must have harness checked and approved by a supervisor.
- Workers must continually check each other's harness and D ring to confirm that the harness is not too loose, and/or the D ring has not slipped too far down the back.

Emergency Response Procedure for Workers at Heights

- Initiate alarm (sound the horn).
- Stop all work and shut off all equipment. (JHA to be reviewed by supervision and all workers before job starts).
- Notify Emergency Response Team.

If you are working from an elevated area when the alarm sounds:

- Stay where you are and determine where/what the emergency is.
- If you feel it is safe to move, muster on the scaffolding or platform.
- Assess the full extent of the emergency.

If a worker is hanging:

- Assess the situation.
- Assign someone to call for help if required.
- Assign persons to bring first aid/rescue equipment.
- If safe to move, direct manlift operator or crane operator to the location.
- For cranes, hook man basket on the crane and/or a secure location on the roof.
- For manlifts, anchor manlift and extend man basket to the hanging worker.
- Apply first aid.

  If the worker is on top of scaffold, roof, or platform:
- Assess the situation.
- Assign someone to call for help if required.
- Assign someone to bring first aid/rescue equipment.
- Move worker to a secure location and apply first aid.

16 FIREARMS AND WEAPONS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to firearms and weapons. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensure all workers understand that firearms/weapons at or in any Priestly Demolition Inc. job site, vehicle, or workplace is strictly prohibited.
- Perform work site inspections to ensure this policy is being followed.

WORKER

- Employees are prohibited, while on any Priestly Demolition Inc. site, from possessing, using, buying, selling, or otherwise introducing to such locations any weapon, including firearms, ammunition, explosives, or other items deemed by Priestly Demolition Inc. or its clients to be dangerous.
- Workers will report any violations of this work practice to their supervisor immediately.

Violation of This Safe Work Practice will result in:

- Any employee who becomes aware of a violation of this SWP is required to immediately notify his or her supervisor.
- A violation of this SWP is considered a serious offense that endangers the safety of others. Any violation of this policy will result in immediate termination of employment with cause.

17 FIRE EXTINGUISHERS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to fire extinguishers. This practice applies to all Priestly Demolition Inc. employees, contractors, clients, suppliers, and members of the public.

Good housekeeping is essential in the prevention of fires. Fires can start anywhere and at any time, given the right conditions. 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 to. 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 fire extinguisher.

RESPONSIBILITIES

SUPERVISOR

- Supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training on proper selection of equipment in accordance with regulations.
- Ensure adequate fire extinguishers are present at the work location based on hazards present.
- Ensure workers have received training on the use, care, inspection, and maintenance of fire extinguishers.

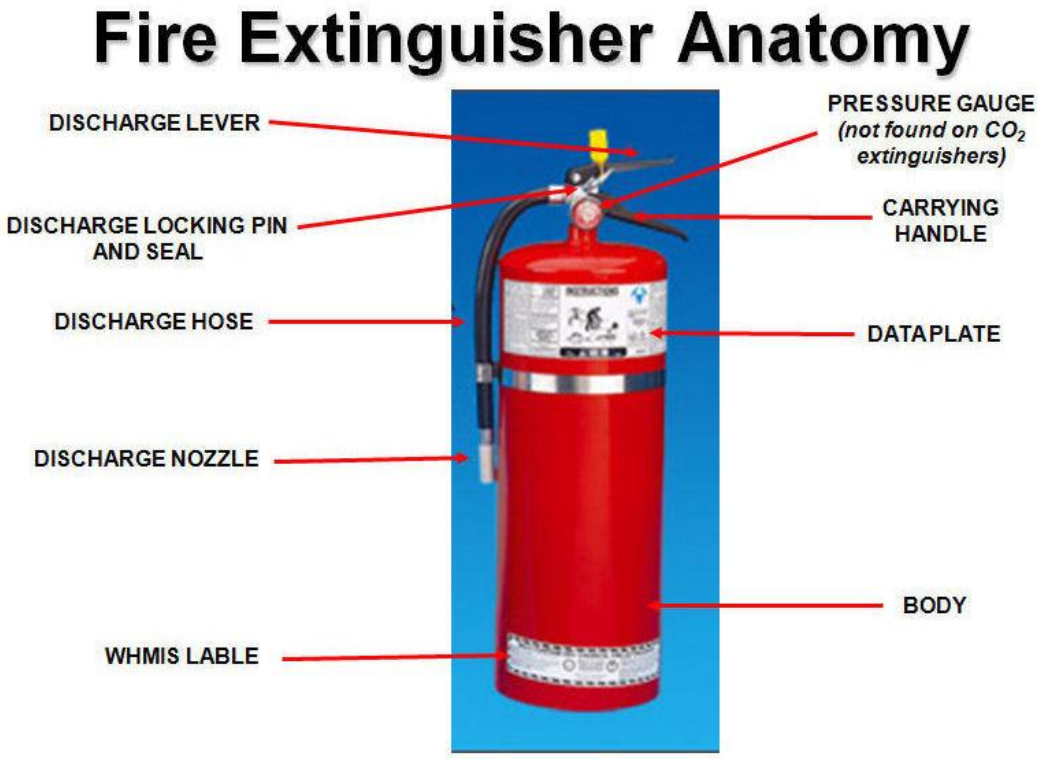
WORKER

- Know proper fire types.
- Know proper extinguisher use.
- Know proper extinguisher maintenance.
- Ensure you are fully trained on the operation and maintenance of fire extinguishers.
- Check cylinder.
- Inspect cartridge puncture cap.
- Weigh cartridge.
- With cartridge removed, check action of puncture lever.
- Check hose and nozzle for obstruction.
- Check date of manufacture.
- Check level and condition of powder.
- Check fill-cap threads and gasket.
- Attach visual seal.
- Check pressure gauge.

PRACTICES

Fire extinguishers will be visible and easy to access. Regular maintenance schedules will be established, and the extinguisher will be inspected and maintained by a qualified person only. Workers must be aware of what types of fire(s) are likely to occur on site and which extinguisher to use for each class.

Anatomy of a Fire Extinguisher



Types of Fires

Class A

- Fires that occur in ordinary combustible materials such as paper, rags, rubbish woods, straw, and cloth.
- Recommended extinguisher: Water from a hose, pump-type can, pressurized extinguisher, or a Soda Acid Extinguisher.
- Fighting the fire: Soak the fire completely, even the burning, smoldering embers.

Class B

- Fires that occur over the surface of flammable liquids such as gasoline, oil, and grease.
- Recommended extinguisher: ABC Units, dry, chemical, foam, and carbon dioxide extinguishers.
- Fighting the fire: Start at the base of the fire and use a swinging motion from left to right, always keeping the fire in front of you.

Class C

- Fires that occur with electrical equipment.
- Recommended extinguisher: Carbon dioxide and dry chemical (ABC Unit) extinguishers.
- 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 fires are ignited.

18 FIRST AID

PURPOSE

The purpose of these practices is to remind Priestly Demolition Inc. employees and contractors trained in first aid about common first aid practices. These reminders are not intended to replace a first aid manual, first aid training, or the care of a first aider or medical practitioner. The requirements for first aid equipment, supplies, and first aiders are set by the Alberta's Occupational Health and Safety Act (OHSA). See individual practices and procedures for preventive measures to minimize the need for first aid.

RESPONSIBILITIES

SUPERVISOR

- Protect the health and safety of workers.
- Provide first aid services, equipment, and supplies at or near the work site.
- Ensure that first aid services, equipment, and supplies are available and accessible during all working hours.
- Ensure that first aid equipment and supplies are clean, dry, and serviceable as well as protected from the environment.
- Ensure that first aid equipment and supplies are clearly identified; post signs clearly indicating the location of first aid services, equipment, and supplies.
- Ensure that workers are aware of first aid services, equipment, and supplies.
- Ensure that suitable transportation is available to transport injured workers.
- Ensure that an emergency communication system is in place.

WORKER

- Maintain awareness of hazards around them.
- Maintain awareness of other workers around them.
- Come to the aid of fellow workers when they are injured.
- Know the location of first aid services, equipment, and supplies.

NOTE: All field employees and contractors of Priestly Demolition Inc. are required to have completed, at a minimum, Standard First Aid – Level A CPR, prior to performing duties.

PRACTICES

- Ensure there is an appropriate number of First Aid trained personnel on site at all times.
- Know where the first aid supplies are and maintain fully stocked kits
- Know how to summon assistance (Review Emergency Response Plan Frequently).
- Do not panic; assess the situation and protect yourself before assisting an injured person.
- Report all injuries and illnesses immediately to supervision.

FIRST AID EQUIPMENT

First aid equipment requirements depend on the number of workers on each shift, the level of hazard associated with the work/site, and the distance from the nearest medical facility. See the Occupational Health and Safety (OH&S) First Aid Regulations for requirements.

EYEWASH STATIONS

Eyewash stations should be available at all locations where chemicals and other hazardous materials are handled. Portable eyewash stations may be transported in workers' trucks to remote locations when necessary. Portable eyewash stations should have their reservoirs replaced according to the manufacturer's schedule and instructions.

FIRST AID KITS

The type of first aid kit, number of kits, and locations of kits are regulated by OH&S. A list of first aid kit contents is required to be kept in each first aid kit. The list of contents for number 1, 2, and 3 first aid kits is shown below.

At remote locations first aid kits may be stored in the worker's vehicle.

Number 1 First Aid Kit

- 10 antiseptic cleansing towelettes, individually packaged;
- 25 sterile adhesive dressings individually packaged;
- 10 - 10 centimetres x 10 centimetres sterile gauze pads, individually packaged;
- 2 - 10 centimetres x 10 centimetres sterile compress dressings, with ties, individually packaged;
- 2 - 15 centimetres x 15 centimetres sterile compress dressings, with ties, individually packaged;
- 2 conform gauze bandages - 75 millimetres wide;
- 3 cotton triangular bandages;
- 5 safety pins - assorted sizes;
- Pair of scissors;
- Pair of tweezers;
- 25 millimetres x 4.5 metres of adhesive tape;
- Crepe tension bandage - 75 millimetres wide;
- Resuscitation barrier device with a one-way valve;
- 4 pairs of disposable surgical gloves;
- First aid instruction manual (condensed);
- Inventory of kit contents; and
- Waterproof waste bag.

Number 2 First Aid Kit

- 10 antiseptic cleansing towelettes, individually packaged;
- 50 sterile adhesive dressings individually packaged
- 10 centimetres x 10 centimetres sterile gauze pads, individually packaged;
- 3 - 10 centimetres x 10 centimetres sterile compress dressings, with ties, individually packaged;
- 3 - 15 centimetres x 15 centimetres sterile compress dressings, with ties, individually packaged;
- centimetres x 25 centimetres sterile abdominal dressing;
- Conform gauze bandages - 75 millimetres wide;
- Cotton triangular bandages;
- 8 safety pins - assorted sizes;
- Pair of scissors;
- Pair of tweezers;
- 25 millimetres x 4.5 metres roll of adhesive tape;
- Crepe tension bandages - 75 millimetres wide;
- Resuscitation barrier device with a one-way valve;
- 6 pairs of disposable surgical gloves;
- Sterile, dry eye dressing;
- First aid instruction manual (condensed);
- Inventory of kit contents; and
- Waterproof waste bag.

Number 3 First Aid Kit

- 24 antiseptic cleansing towelettes, individually packaged;
- 100 sterile adhesive dressings individually packaged;
- 50 - 10 centimetres x 10 centimetres sterile gauze pads, individually packaged;
- 6 - 10 centimetres x 10 centimetres sterile compress dressings, with ties, individually packaged;
- 6 - 15 centimetres x 15 centimetres sterile compress dressings, with ties, individually packaged;
- 4 - 20 centimetres x 25 centimetres sterile abdominal dressings, individually packaged;
- 6 conform gauze bandages - 75 millimetres wide;
- 12 cotton triangular bandages;
- 12 safety pins - assorted sizes;
- Pair of scissors;
- Pair of tweezers;
- 25 millimetres x 4.5 metres rolls of adhesive tape;
- Crepe tension bandages - 75 millimetres wide;
- Resuscitation barrier device with a one-way valve;
- 12 pairs of disposable surgical gloves;
- Sterile, dry eye dressings individually packaged;
- Tubular finger bandage with applicator;
- First aid instruction manual (condensed);
- Inventory of kit contents; and
- Waterproof waste bags.

19 FIT FOR DUTY

PURPOSE

In order to provide a safe work environment, employees must be able to perform their job duties in a safe, secure, productive, and effective manner, and remain able to do so throughout the entire time they are working. Employees who are not fit for duty may present a safety hazard to themselves, to other employees, or to the public. This practice shall apply to all Priestly Demolition Inc., contract employees, and consultants.

The goal of this Safe Work Practice is to establish procedures by which the Priestly Demolition Inc. supervisor will evaluate an employee's fitness for duty when an employee is:

- Having observable difficulty performing work duties in a manner that is safe for the employee, for the employee's co-workers, or for the public, as determined by the supervisor; or
- Posing an imminent and serious safety threat to self and/or others.

The following terms are defined in order to allow a better understanding of this practice.

Fit for duty: Able to perform the duties of the job in a safe, secure, productive, and effective manner.

Supervisor: For an employee, the person to whom they report,

RESPONSIBILITIES

SUPERVISOR

- Observing the attendance, performance, and behaviour of the employees they supervise.
- Following this practice when presented with circumstances or knowledge that indicates that an employee may be unfit for duty.

WORKER

- Managing their health in a manner that allows them to safely perform their job responsibilities.
- Come to work fit for duty and must perform their job responsibilities in a safe, secure, productive. and effective manner during the entire time they are working.
- Notifying their supervisors when they are not fit for duty.
- Report all medications they are taking to their supervisor prior to beginning their daily work activities.
- Notifying the supervisor when they observe a co-worker acting in a manner that indicates the co-worker may be unfit for duty.
- If a supervisor's behaviour is the focus of concern, the employee shall inform company management.

PRACTICES

- The company must ensure that no person enters or remains at the job site while under the influence of drugs and/or alcohol.
- The supervisor who receives reliable information that an employee may be unfit for duty, or through personal observation believes an employee to be unfit for duty, will validate and document the information or observations as soon as is practicable. Actions that may trigger the need to evaluate an employee's fitness for duty include, but are not limited to:
    - Problems with dexterity, coordination, concentration, memory, alertness, vision, speech, etc.
    - Inappropriate interactions with co-workers or supervisors.
    - Inappropriate reactions to criticism, or suicidal or threatening statements.
- The supervisor will present the information or observations to the employee at the earliest possible time in order to validate them and will allow the employee to explain his or her actions, or to correct any mistakes of fact contained in the description of those actions. The supervisor will then determine whether the employee should leave the workplace immediately for safety reasons.
- In situations where there is a basis to think that a crime may have been committed and/or the employee is making threats to harm himself/herself or others or is acting in a manner that is immediately dangerous to himself/herself or others, the supervisor shall contact the company's HR Department and the local police detachment and immediately address any safety issue.
- Based on the descriptions provided by the supervisor and manager, these will determine whether a fitness for duty evaluation is required and, if so, the type of evaluation needed. If an employee is determined to be unfit for duty, reasonable assistance will be provided to the employee.

20 FORKLIFT SAFETY

Properly operated forklifts make material handling effortless. However, when the forklift or operator limitations are exceeded, they can be very dangerous.

Adhering to the following general operating rules can greatly reduce the risk of personal injury and property damage:

- Only authorized and trained workers shall operate the forklift.
- Determine that the forklift is the proper equipment to use for the job or operation.
- The operator will conduct and document a pre-trip inspection and submit to appropriate personnel.
- Know the manufacturer's manual. Never exceed manufacturer's load rating. Be familiar with operator's manual for particular piece of equipment that will be used.
- Inspect all components prior to use.
- Keep forks and speed low at all times.
- When parked, always place forks flat on the ground.
- Drive in reverse when moving bulky items to avoid blind spots.
- Ensure forks are fully seated and square when lifting pallets.
- Do not move damaged or improperly loaded pallets.
- Do not carry passengers - No passengers permitted in or on the forklift while in operation.
- Don't leave machine running and un-attended - especially with an elevated load.
- The use of a seat belt is recommended.
- The operator shall ensure the working running surface is safe and appropriate for the machine and load being transported.
- Ensure equipment is routinely inspected

21 FUEL STORAGE AND REFUELING

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to fuel storage and refueling operations. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Aiding workers in their job.
- Providing proper instruction to workers on protection requirements.
- Ensuring workers are wearing the proper personal protective equipment.
- Ensure SDS are available to workers.

WORKER

- Wearing the proper personal protective equipment.
- Asking supervisors for assistance when something is not understood.
- Ensuring that equipment is fuelled properly and safely according to the safe work practice and manufacturer's specifications.
- Review SDS.

PRACTICES

GASOLINE

Gasoline will be stored in a designated area approved by the Owner/Contractor.

- "No Smoking" signs will be placed in the area where the gasoline is being stored.
- Only approved storage containers will be used.
- Acceptable secondary containment must be provided in case of a spill or in case of leakage.
- Jerry cans are acceptable for gasoline storage and use.

DIESEL

Tidy tanks having no more than a 100-gallon capacity will be permitted on the work site.

- Acceptable secondary containment must be provided in case of a spill or in case of leakage.
- No fuels will be permitted inside of confided spaces.

FUELLING AND RE-FUELLING

- Re-fuelling of vehicles, either gasoline or diesel, will be done when the engine is running.
- Re-fuelling of vehicles or machinery will not be done inside of a building or shop.
- Re-fuelling of vehicles or machinery cannot begin until the vehicle or machinery is grounded.
- Re-fuelling of vehicles or machinery shall not occur within 100 metres of a watercourse.

Bulk Storage:

- The tanks must allow space for expansion (i.e., 2% of full capacity) and must be fitted with vents to allow for temperature changes without tank distortion or entry of moisture.
- Tank bottoms must be supported to avoid distortions in the metal that may trap moisture and debris.
- Applicable TDG and WHMIS signage must be clearly visible.
- The inside of all storage tanks must be clean and free of all foreign matter.
- Equip all trailer-mounted fuel cargo tanks with access ladders and non-skid walkways to the manholes. Provision must be made to allow drainage of moisture away from the manholes.
- All fuel storage systems must be mounted on a road-worthy highboy that has been government inspected or mounted on a skid system with an approved pump transfer system.
- Trailer mounted fuel systems must not be moved on another highboy or lowboy.
- Fuel storage areas must be at least 100 metres from camp locations.
- Fuel absorbent pads must be available to soak up small spills.
- Metal buckets must be available to contain minor leaks.
- Stands must be used for all fuel nozzles.
- Ground rods and cable for each bulk storage tank.

Fire Protection:

- Two (2) 10A, 60BC fire extinguishers for each fuelling site.
- Two (2) "No Smoking" signs.

Fuelling:

- Hazards are fire, explosion, and spills.
- Choose firm ground that is not susceptible to flooding.
- Avoid oil and fuel spills. Fuel leaks, of any amount, are unacceptable and must be contained and fixed immediately. Refer to TDG reporting quantities.
- Re-fuelling is prohibited until all leaks are fixed and any spill cleaned up.
- Use a fuelling spout.
- Store fuel nozzles off the ground with the nozzle facing downward to prevent water contamination.
- Suspend fuelling operations immediately when a lightning discharge hazard exists.
- Fire extinguishers must be strategically located, prominently displayed and readily available at all fuelling locations.
- "No Smoking" signs must be strategically located and prominently displayed near the fuelling locations.
- When re-fuelling vehicles, the ignition must be shut off.

- Absorbent material must be placed under all valves and hose couplers.
- All fuel dispensing systems must have grounded metal containers to catch spillage.
- Always wear gloves when fuelling.
- Mobile phones should not be used when fuelling.
- Do not re-enter your vehicle when fuelling.
- When filling a jerry can, take the can out of the back of the pickup and place on the ground to avoid static discharge.

Fuelling of Vehicles and Equipment

Practice:

- Move equipment to fuelling station.
- Shut off engine.
- Lower all hydraulics.
- Apply parking brake.
- Remove fuel cap from equipment.
- Remove handle from pump and turn on power.
- Do not overfill tank.
- After fuelling, return handle to pump and replace fuel cap.

Potential Hazards:

- Ignition caused by smoking within three (3) meters of machine being fuelled.
- Fuel spilling on clothing.
- Fuel splashing.
- Ignition caused by static spark.

Fuelling Small Equipment:

- Put on all safety equipment.
- No smoking within three meters of unit being refuelled.
- Shut engine off before fuelling.
- Do not fuel hot engine.
- Let cool for at least five minutes.
- Ensure proper fuel is being used and jerry can spout is screwed on tight.
- Pour fuel in tank.
- Do not overfill.
- Return jerry can to proper storage area before re-starting equipment.

Potential Hazards:

- Fuel splashing on hot exhaust.
- Gasoline burns rapidly causing severe burns.
- Smoking within three meters of unit being fuelled.
- Other sources of ignition.
- Ignition from static discharge.

22 GETTING ON AND OFF HEAVY EQUIPMENT

- Ensure that the machine is equipped with side grab rail & steps.
- Clean mud off boots before climbing onto the machine.
- Face the machine and step onto the first step.
- Maintain 3-point contact at all times, 2 hands & 1 foot, or 2 feet and 1 hand.
- Climb into cab or other areas provided with non-slip surfaces.
- To get off machine, make sure the machine is dogged out & further movement prevented.
- Step out of cab onto the ladder and, while facing the machine, descend using the 3-point method.

23 GRADER OPERATION

Safety Equipment:

- Safety Footwear, hearing protection, seat belt.

General Safety Rules:

- Read and understand operator's manual.
- Learn the specific uses of all controls, indicators, warning lights and warning plates.
- Wear safety equipment.
- Avoid wearing loose clothing.
- Walk around grader making sure there are no obstructions or problems with machine.
- Keep all shields in place.
- Always use warning lights when operating.
- Keep windows clean.

Operation Safety Rules:

- Climb into cab, adjust seat, and put on seat belt.
- Adjust mirrors.
- Never allow riders on grader except for training purposes.
- Be sure everyone is clear of grader before starting engine.
- Let run for a couple of minutes before moving machine.
- Start engine from operator's seat only.
- Reduce speed for rough ground or sharp turns.
- Never try to get on or off of a moving machine.
- Be careful when operating near ditches.
- When descending a steep hill, use a lower gear to slow the machine down.
- Never coast down a hill as injury or death from a runaway machine may occur.
- Lower the blade and gate to the ground and apply emergency brake before leaving the cab.
- Support the blade when doing maintenance or repairs.

Potential Hazards:

- Starting the engine from anywhere except the operator's seat may result in serious injury or death.
- Serious injury or burns may result from opening the radiator cap on a hot engine.
- Carbon monoxide can kill when running an engine in a closed building.
- Escaping fluid under pressure can penetrate the skin and cause serious injury.
- A flame or spark near the battery may cause an explosion.
- Back or muscle strain may result from changing blades.
- Skinned knuckles and crushed fingers may result from tightening bolts on the grader blade.
- Crushed body parts may be the result from reaching under the blade.

Grader - Changing Blades

Safety Equipment:

- Gloves
- Safety toed footwear

- Hard hat

Tools:

- Assorted wrenches
- Grease gun
- Large 6-ton jack stands

Procedure:

- Lift blade to appropriate height.
- Set jack stands in place.
- Lower mould board onto jack stands.
- Proceed with removing the bolts and nuts on the grader blades.
- Remove grader blade.
- Replace blade with new one.
- Lift one end of the blade into position, push in bolt, tighten nut, and lock washer onto end of bolt.
- Lift other end of blade into position, push in bolt, and tighten nut and lock washer.
- Push in remaining bolts and secure nuts.
- Now put on another blade on the other side of the mould board. The same procedure is used.
- After all the bolts are in place, tighten all nuts with the impact wrench. Then check for tightness with flex-bar. Put tools away when finished.

Potential Hazards:

- Bumping head on grader frame.
- Scratching knuckles and crushed fingers.
- Falling mould board.

24 GRINDERS

PURPOSE

Safety procedures need to be followed when using grinders and grinding wheels. Proper maintenance and operation of the grinders in the work area will contribute to a safe worksite. Please refer to OH&S Act, Regulation and Code Part 25 Tools, Equipment and Machinery for more information on grinders.

PRACTICES

There are many factors to consider in the safe operation of grinders, such as:

- Always wear the proper PPE such as safety glasses, goggles, gloves, and respiratory protection as required.
- Regular maintenance and inspection including cleaning and servicing, inspecting wheels for cracks and defects, a ring test on all new wheels, and checking for clan and flat flange surfaces on wheels before installing.
- Proper and well-adjusted equipment guards.
- Set up protective barriers to contain sparks.
- Stand away from the wheel when starting the grinder.
- Choose the correct wheel for the job.
- Do not exceed the maximum rpms indicated on the wheel by the manufacturer.
- Store portable grinders on racks or hooks.
- Store wheels where they won’t have other objects piled on top of them.
- Don’t store wheels near heat and avoid contact with oil or moisture.

POTENTIAL HAZARDS

- Sparks from the grinder can cause a fire or explosion if used too close to flammable materials.
- The wheel may break and send pieces flying at high velocities, endangering yourself as well as others in the near vicinity.
- Loose clothing can get caught in the grinder.

25 GROUND DISTURBANCE

The purpose of this document is to define Priestly Demolition Inc. practice related to ground disturbance and equipment. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensuring workers have the appropriate training.
- Aiding workers in their job.
- Providing proper instruction to workers on protection requirements.
- Ensuring workers are wearing the proper personal protective equipment.
- Pre-planning trench/excavation soil condition.

WORKER

- Understanding and following the safe work practices below.
- Wearing the proper personal protective equipment.
- Asking supervisors for assistance when something is not understood.

PRACTICES

This safe work practice is designed to protect workers from injuries that are associated with excavating, trenching, and excavation to expose existing lines or underground line crossings. Prior to any ground disturbance, a pre-job safety meeting will be held to review the job, all hazard assessments, roles, and responsibilities, buried facilities/pipelines, emergency procedures, etc.

Prior to commencing a ground disturbance, a work permit will be completed to ensure that all pre-job activities are complete, and the crossing agreements or approvals are complete. The permit should include requirements listed in crossing agreements/approvals, identification of hazards and controls, and evidence of communication to affected personnel. Priestly Demolition Inc. personnel involved in ground disturbance activities must be deemed competent to complete those activities. Competence includes a combination of training, experience, and qualifications.

EXCAVATING AND TRENCHING

- Do not enter any trench or excavation until the walls have been sufficiently cut back or temporary protective structures have been installed. This does not apply if the trenches or excavations are shallower than the legal minimum.
- Ensure that all underground and/or overhead lines being crossed have been exposed, identified, and are well marked.
- Control the traffic near roads or busy access ways by using traffic controllers or flag persons.

- Set up barricades and provide ladders for access/egress.
- Provide timber shoring, trench jacks, sheet piling, cage, or other approved methods when the cut back method is not possible.

EXCAVATING TO EXPOSE EXISTING LINE OR UNDERGROUND LINE CROSSINGS

- Expose pipelines, cables, or conduits before working in an area when it is necessary to disturb the soil within the existing cable pipeline cable conduit.
- Expose existing pipeline(s) and/or cables before starting any mechanical excavation.
- Locate all lines and determine the probable depth of the lines to be crossed.
- Sweep R.O.W. a/o site using radio detection units.
- Hydrovac to expose critical areas to allow for mechanical excavation.
- Probe for any existing lines.
- Mark any temporarily filled excavations.
- Have a signal person present at all times to direct the mechanical excavation during line crossing construction. Be aware and familiar with the proper hand signals.

26 GUARDING EQUIPMENT

Exposed moving parts on mobile equipment that present a hazard to the operator or to other workers must be guarded. If a part must be exposed for proper function, it must be guarded as much as is practicable and consistent with the intended function of the component.

A person must not intentionally remove, impair, or render ineffective any safeguard provided for the protection of workers. A fixed guard must not be modified to be readily removable without the use of tools.

- Hazards include flying debris, moving parts, and getting caught in equipment.
- All belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded.
- All machine guards must be kept in good condition and appropriate guards must be fastened in place.
- All hand tools must be guarded at point of operation.
- Employees are not to operate tools or machines unless guards are in place.
- No guards are to be modified unless specified by the manufacture or designed by a professional engineer.
- Never wear any loose or torn clothing or jewellery except medical alert jewellery, when working with rotating equipment.
- Each guard must be capable of supporting, without permanent distortion, the weight of a 200-pound individual unless the guard is located where it is impossible for a person to step on it.
- Guards must be designed to permit routine inspection and maintenance.

Loose fitting clothing and/or jewelry:

If there is a danger of contact with moving parts of machinery:

- The clothing of the worker must fit closely about the body
- Dangling neckwear, bracelets, wristwatches, rings, or similar articles must not be worn, except for medical alert bracelets which may be worn with transparent bands that hold the bracelet snugly to the skin
- All cranial and facial hair must be confined or worn at a length that will prevent it from being snagged or caught in the work process.

27 H_2S

PURPOSE

This H_2S safe work practice has been developed for Priestly Demolition Inc. to promote a safe and healthful work environment for employees who work in operations where there is the potential for H_2S exposure. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensure that workers have proper training and that they understand the hazards associated with an environment where H_2S has the possibility of being present.
- Ensure workers have necessary monitoring and safety equipment.
- Perform hazard analyses.
- Perform work site inspections.
- Enforce employee compliance with this program.

WORKER

- Comply with the procedures outlined in this program and the required training.
- Follow all Safe Work Practices and Safe Job Procedures in the Priestly Demolition Inc. HSE manual.
- Check work area before start of work and after breaks.
- Complete Field Level Hazard Assessment.
- Ensure all monitors have been bump tested prior to use and that calibrations are up to date.

PRACTICES

Personal Monitors

When routine and/or maintenance tasks involve potential exposure to H_2S at or above 10 ppm in the breathing zone, or 20 ppm or more at the source, the use of continuous direct reading personal monitors with audible, visual, and/or vibrator alarms is required. The following requirements are applicable:

- Personal monitors shall be set to alarm at 10 ppm.
- Personal monitors shall be properly maintained and calibrated in accordance with the manufacturer’s recommendations.
- Calibration shall be performed no less frequently than every 3 months; or more frequently if recommended by the manufacturer.
- Monitors shall be challenged, or “bumped”, with span gas prior to each use.
- Personal monitors must be worn on the outside of all clothing.

- A portable monitor may be used for work groups as long as it adequately samples the work area and is representative of the exposure of each member of the group.
- Individuals of a group working together and making use of a common monitor are not allowed to leave that group and enter an area with potential breathing zone concentrations of 10 ppm or sources at or above 20 ppm unless the individual is utilizing a personal monitor.

Contingency Plans

In H_2S present environment(s) (see H_2S definition), a plan shall be developed and approved by Priestly Demolition Inc. management prior to commencing work in an area that has the potential for H_2S to be present. When personnel are made aware of such potential H_2S environments, they shall immediately contact their supervisor and the EH&S Department.

Personal Protective Equipment

When exposure to personnel is anticipated and engineering controls fail to reduce breathing zone concentrations to below 10 ppm averaged over 8 hours, or 20 ppm for a maximum of 15 minutes, individuals shall be required to wear appropriate respiratory protection.

Training

All personnel who work in areas where there is a potential for exposure to H_2S shall have received H_2S training.

Definitions

Hydrogen Sulfide (H_2S) - A colorless, flammable, toxic gas that is heavier than air and can be found in fluids encountered in oil and gas productions and gas processing operations. Inhalation at certain concentrations can lead to injury or death.

The health effects associated with H_2S are primarily determined by the concentration of the gas in the individual's breathing zone, the length of exposure period(s), and the individual's susceptibility to H_2S. This gas exhibits potential health hazards, even at relatively low concentrations of 10-20 ppm. At these concentrations, H_2S may cause eye irritation. At concentrations above 600 ppm, H_2S can cause immediate respiratory arrest, loss of consciousness, and death.

An important effect of H_2S exposure is olfactory fatigue, or temporary loss of the sense of smell. H_2S odor can be detected at concentrations as low as 0.13 ppm. At concentrations up to or about 50 ppm, H_2S has an odor similar to rotten eggs. However, at concentrations above this level, the sense of smell diminishes. At concentrations above 100 ppm, H_2S causes a rapid and total loss of the ability to smell. Because of this characteristic, odor must never be used as a warning indicator for H_2S exposure.

Immediately Dangerous to Life or Health (IDLH) - An atmospheric concentration of any toxic, corrosive, or asphyxiate that poses an immediate threat to life, or that which would cause irreversible adverse health effects, or that which would interfere with an individual's ability to self-rescue from a dangerous atmosphere. The IDLH level for H_2S is 100 ppm.

Source - As it pertains to this program, crude oil, produced gas, water, and the atmosphere inside of a container, i.e., tank, vessel, line, etc., which contains H_2S.

28 HOT WORK

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to Hot Work. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

PRACTICES

This safe work practice sets the minimum standards for hot work. Each site will adopt and incorporate the following precautions and elements into their safe work procedures. Procedures or conditions stated on client issued Safe Work Permits that require a higher level of safety or additional precautions will supersede this safe work procedure.

The following outlines the expectation of this Hot Work Practice:

- To define hot work and when it applies.
- To identify potential hazards related to performing hot work.
- To establish controls that must be implemented prior to hot work being performed.

DEFINITIONS

Hot Work - is any work that could produce a source of ignition within an area where atmospheric conditions could support combustion, or where flammable materials could otherwise be ignited.

Intrinsically Safe - any spark or thermal effect that may occur in normal use, or under any condition of fault likely to occur in practice, is incapable of causing an ignition of the prescribed flammable gas, vapour, or dust. Any portable electrical equipment must be visibly stamped with an intrinsic safety rating for Class I locations, or its use must be treated as hot work.

Lower Explosive Limit - the minimum concentration of vapour or gas in the air at which the propagation of flame occurs on contact with a source of ignition. A point under which combustion will not be supported as the mixture of flammable gas and air is too lean.

Positive Isolation - to disconnect from all sources of energy and render free from danger by closing off all sources of mechanical, hydraulic, or pneumatic energy. Rendered incapable of being energized without premeditated and deliberate manual operation.

Upper Explosive Limit - the maximum concentration of vapour or gas in air above which propagation of flame does not occur. A point above which combustion will not be supported as the mixture of flammable gas and air is too rich.

Note: The lower and upper explosive limits or explosive ranges differ depending on the gas, its mixture in air, its density, and the oxygen concentration or temperature.

Competent - means adequately qualified and suitably trained with sufficient experience to safely perform specific work without, or with only a minimal degree of supervision.

Hazard - any condition at a work site that has the potential to cause injury, illness, or loss.

Hazard Assessment - a systematic examination of hazards to identify all loss exposures associated with the work and to develop controls for those exposures.

Hazardous Location - for the purposes of this practice, “hazardous location’” means wellheads and production and stored equipment facilities that are in service or otherwise potentially contaminated with hydrocarbons.

EXAMPLES OF HOT WORK

Hot work can include, but is not limited to, the following:

- Use of pneumatic and electric drills and wrenches (including any cordless tools).
- Use of cameras, lights, pagers, cellular phones, laptop computers or any other portable electronic device that is not stamped with an intrinsic safety rating for Class I areas (hazardous locations).
- Use of hammer wrenches.
- Chipping and grinding.
- Stress relieving.
- Use of steamers.
- Lighting a flare, burner, or heater.
- Servicing live electrical or electronic equipment.
- Use of 12-volt electrical equipment (barrel pumps, etc.).
- Use of fuelled or electric heaters.
- Vehicle operation/entry.
- Welding.
- Use of heating and cutting torches.

GENERAL HAZARDS

Fire and explosion hazards associate with hot work include:

- Fire or explosion caused when flammable gases, in the flammable range (proportionately mixed with air), are ignited by an ignition source.
- Potential fire hazards also exist when handling other substances such as pyrophoric/reactive materials and non-flammable or combustible hydrocarbon liquids (those with a flash point above 37.8ºC). The primary focus is, however, on gases, as any substance has to be in a gas state and mixed with oxygen in the right proportions to cause a fire or explosion.
- Fires can be caused if welding on an oil pipeline, where initial gas tests indicate 0% LEL. The heat generated by the welding process may heat the combustible liquid above its flashpoint, resulting in a flammable gas, vapour, fire, or explosion.

29 HOISTING AND RIGGING

General

Rigging is a skill. Only trained and competent workers should be involved with rigging materials for hoisting. There are many things to consider when rigging up materials or equipment to be hoisted and moved. Consideration needs to be given to such things as capacity and strength of the hardware being used and to the balance, stabilization, and control of the materials once hoisted in the air. Ensure that proper calculations have been done for the weight of the load and the rigging attachments being used. Take into consideration the wind factor when deciding if it is safe to move a load.

Guidelines

- Before use, all pieces of equipment must be inspected to ensure compliance. Any defective equipment must be tagged out of service and repaired, if applicable.
- Name one competent member of the crew to act as a signalman. The equipment operator is to recognize signals from that person only. The signalman will be identified with high visibility clothing and gloves. The signalman must be careful not to order a move until he / she has received the “already” signal from each member of the crew.
- Before the load may be lifted, workers must ensure the safe working load capacity is clearly marked. Workers must also ensure that the rated capacity is not exceeded at any time.
- Each rigger must be sure he / she is in the clear before he / she gives an “already” to the signalman. When he / she has positioned the sling or choker he / she is using, he / she must release it, if possible, before giving the “all ready” signal.
- If the rigger must hold the sling or choker in position, he / she must be sure his / her hand is clear of pinch points. His / her hand should be far enough away so there is no possibility of a frayed wire catching a glove and jerking the hand into a pinch point. Frayed cables should be avoided; however, regulation allows for 3 broken strands within a 6” span of wire rope. Check for adequacy and security of rigging. The rigging capacity must be sufficient for the lift, must provide a balanced lift, and must remain in place without shifting during the lift. The exact weight of all rigging must be known and added to the total lift weight calculations.
- Be aware of the roll or swing of the load. Since it’s almost impossible to position the hook exactly over the load centre, there will almost always be a swing or roll. Anticipate the direction of the swing or roll and work away from it. Always attempt to find the center of gravity of the material being lifted. A lifted load is to be no less than 5 degrees off level when being raised. When lifting different shaped pieces with varying weights, it may be necessary to use a combination of slings to be able to raise and lower the load balanced.
- Never place yourself between material, equipment, or any stationary object and the load swing. Stay away from stacked materials that may be knocked over by a swinging load.
- Never stand under the load and keep away from under the boom as much as possible.

- Look over the location where the load is to be landed. Remove unnecessary blocks or other objects that might be in the way or fly up if struck by the load.
- When lowering or setting the load, be sure your feet and all other parts of your body are out from under the load. Set the load down slowly so that if it rolls on the blocking, it will be a slow shift that you can move away from. The load must be fully landed and supported before rigging is detached.
- Whenever practical, there is to be a tag line attached so that the rigger can guide the material easily without getting too close to the load and so that visual contact can still be kept between the operator and the rigger. A tag line is also used to manage and reduce material swing while the load is in the air.
- All areas of the crane set-up and area of load-lifting and landing are to be cordoned off so that no one will unknowingly walk through a lift while it is being performed. The drop zone area should be clear of tools, machinery, equipment, vehicles, material, and people. Only those individuals that are necessary and vital to the lift are to be in the lift area / drop zone.

If the crane operator or rigger does not know the weight of the load that is to be lifted, the lift should not be performed.

It is imperative that everyone understands that when a crane operator is communicating with his / her signalman, they are not to be interrupted unless a problem has been noticed.

Safety Equipment:

- Gloves
- Safety toed footwear
- Hard hat
- High visibility vest

Tools:

- Rope
- Chains
- Nylon slings
- Hooks

Equipment Inspection:
Ropes:

- When ropes have visible cuts, abrasions, or have been stretched, the ropes will be removed from service.
- Check the rope before using it.
- All ropes should be thoroughly inspected before each use by a full-time operator.

Nylon Slings:

- Slings that have deep visible cuts and abrasions should be taken out service.
- Ensure sling is rated for the task being done.
- All slings should be thoroughly inspected before each use by a full-time operator.

Chains:

- Chains should be visually inspected prior to use.
- When chains are subject to shock or impact load, they must be thoroughly inspected on a link by link before being put back in service.
- To inspect a chain:
    - Clean it in a solvent solution.
    - Lay it out on a clean surface with lots of light.
    - Inspection items to look for include the following:
        - Elongated or stretched links.
        - Bent, twisted, or damaged links.
        - Cracked links.
        - Gouges, chips, scores, or cuts in each link.
        - If they are deep or large in area, the chain should be taken out of service.
        - Lifted fins at the welds.
        - Severe corrosion.
- Any chain that is a part of a mechanical lifting mechanism should be inspected in the same manner.
- Alloy steel chains are identified by a letter stamped on the links and the hooks.
- Never re-weld alloy steel chains.
- Never insert the point of a hook in an eye bolt; always use a shackle.

Hooks:

- The hook should be the weakest part of any crane hoist or sling.
- It seldom, if ever, breaks; however, it may fail by straightening out and finally releasing its load.
- Carefully inspect a hook for cracks in the saddle section and at the neck of the hook.
- Buy and use only the best hooks available.
- Never use the tip of a hook to carry a load.

Potential Hazards:

- Overloading and stretching fabric ropes, nylon slings, and chains may cause breakage.
- Whip lash from each end of the rope, nylon slings, and chains.
- Being hit by a shifting load.

Evaluating the Load:

- Determine the weight of the object or load prior to a lift to make sure that the 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:

- Prepare a place to land the load, lower the load gently, and make sure it is stable before slackening the sling or chain.
- Select only alloy chain slings and NEVER exceed the working load limits.
- Make sure the hoist or crane is directly over the load.
- Use slings of proper reach.
- Never permit anyone to ride the lifting hook or the load.
- Make sure all personnel stand clear from load being lifted.
- 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 at specified intervals and maintain them in good condition.
- Inspect each chain or sling for cuts, nicks, bent link, bent hooks, etc., before each use. If in doubt, do not use it.
- Ensure that all safety latches on hooks are in good working condition.
- Ensure the signalperson is properly identified and understands the techniques of proper signalling.
- Use a tagline to control the load.

Qualified Riggers:
Ensures rigging and slinging work shall be conducted by or under the direct supervision of qualified workers familiar with:

- The rigging to be used.
- And the code of signals authorized by the Board for controlling hoisting operations.

Load Detachment:
Loads to be unhooked by a worker shall be safely landed and supported prior to the rigging being detached.

30 HOUSEKEEPING

PURPOSE

Many accidents and near misses occur as a result of poor housekeeping. Efficiency and morale can be greatly improved if positive attitude and proper care is taken towards housekeeping. Good housekeeping provides a sound basis on which to strengthen overall safety practices.

PRACTICES

There are many things to do to make housekeeping easier and the workplace safer, including:

- Set a good example by taking the initiative to maintain good housekeeping.
- Set a specific time for general clean-ups.
- Immediately clean up situations that pose a hazard, such as oil spills, water, sharp objects, and flammable materials.
- Always “clean as you go”.
- Encourage others to take responsibility for their part in the housekeeping effort.
- Proper storage procedures are crucial - “a place for everything and everything in its place” really works.
- Never continue to work where poor housekeeping has become a hazard.

Examples of Poor Housekeeping:

- Tools not properly stored are easily damaged.
- Time is wasted looking for lost items in a mess.
- Emergency exits and access to fire extinguishers can be blocked.
- Garbage areas attract rodents and insects and create health hazards with high levels of bacteria.

To maintain good housekeeping, these rules must be followed:

- Keep work areas clean and free from obstruction at all times. Tools, loose objects, oil, grease, and other materials left lying about are tripping or slipping hazards.
- Clean work areas at the end of a shift, immediately after finishing a job or as necessary.
- Stack and secure all material to prevent sliding, falling, and collapse. Set pipe, conduit, and metal stock in racks or stack and block it to prevent movement.
- Clean up spilled toxic, flammable, or corrosive materials immediately using the method described in the WHMIS Material Safety Data Sheet.
- Keep roads, walkways, and yard areas clear from obstruction and refuse.
- Ensure that workers are working in well lit areas whenever possible and wearing reflective vests or other clothing when in dim lit areas or heavy traffic areas.
- The use of barricades or flashing signs should be used when in high traffic areas so that the work area can be distinguished for any oncoming traffic.

Every employee must contribute to maintaining an uncluttered jobsite and clean up as work progresses.

- Minimize fire hazards by keeping the workplace free of accumulated combustible materials and waste.
- Ensure that exits and aisles are clear of obstructions to allow for easy evacuation of the building.
- Place all trash and scrap in proper containers.
- Keep oily rags in covered metal containers.
- Dispose of hazardous materials in approved marked containers.
- Store equipment and materials in their assigned location.
- Clean air vents and filters to maintain ventilation efficiency.
- Ensure that boxes, drums, and piles are located on a firm foundation and properly stacked.
- Clean up tools and unused materials after finishing a job or before leaving the job site.
- Clean up spills promptly according to procedures, using personal protective equipment where necessary.
- Report hazards such as uneven boards, cracks, or burnt-out lights and fix immediately.
- Bundle hoses and cables when not in use.
- Place empty containers and pallets in designated locations.
- Dump small containers into larger ones and label accordingly.
- Do not pile material around fire extinguishers, sprinklers, or emergency exits.
- Do not leave clean up to last few minutes of shift or day.
- Do not clean equipment without "locking out."
- Do not reach into waste containers. Dump contents or remove bag.
- Do not blow off dust with compressed air. Use a vacuum or brush.
- Do not use bare hands when collecting waste. Wear gloves to avoid cuts and splinters.
- Do not place materials on stairs.
- Do not use kegs or boxes as chairs or ladders.

31 ILLUMINATION

Operations personnel must ensure that illumination of any work site is sufficient to allow work to be carried out safely. An assessment of the work site and work activities must be performed to determine the types and quantity of lighting that would be required to safely allow work to be conducted.

Special attention should be considered in positioning any light source to eliminate shadows and to ensure all hazards are visible to personnel. Both emergency lighting and general work site lighting must be considered when assessing work sites for sufficient illumination.

Work Site Lighting

Various types of work site lighting and mounting systems are available. The type of lighting element may be incandescent or high-pressure sodium. The lighting fixture may be mounted on the building or structure interior/exterior wall, or possibly on a tower or pedestal. Typically, these types of systems are reserved for permanent work site locations. For work sites under construction, or where high intensity temporary illumination is required, self-contained portable lighting units powered by a diesel/electric generator are becoming more evident as remote facilities are established.

Many of these sites are not provided with the benefit of off-lease electrical utility. Each type of lighting system serves a specific purpose in terms of the illumination provided, the quality or intensity of illumination, and the application in terms of the electrical Class and Division it is to be installed in. Therefore, each work site location must be individually assessed to determine what type of lighting system best meets the specific need.

Where lighting fixtures are installed on building walls, above a work area, above or below a walking surface, or on a pedestal or tower, these fixtures or lighting systems should be appropriately protected from damage by pedestrian and vehicular activity, and suitably protected from the elements.

Emergency Lighting

Where failure of the normal lighting system would endanger any worker, the Company will ensure emergency lighting is available that will generate sufficient and dependable light to enable workers to:

- Evacuate the premises safely;
- Initiate emergency shutdown procedures; and
- Restore normal lighting.
- Frequent tests should be conducted to ensure that emergency lighting will work as intended.

32 JOURNEY MANAGEMENT

The following safe work practice will comply with all legislative and regulatory standards, including OH&S Safety Act, Regulation and Code. In order to reduce the risk of vehicle or worker accidents, the following guidelines will be followed:

A Journey Management plan will be reviewed with all affected employees.

- Road travel will be limited when applicable, to minimize fatigue.
- Road travel will be planned to take place during daytime hours, when practicable.
- The worker will check weather reports and road conditions prior to driving a vehicle. If necessary, travel will be avoided in adverse weather conditions.
- The worker will ensure that defects that may affect the safe operation of a vehicle will be repaired before the vehicle is operated. A Vehicle Inspection Form is to be completed prior to departing.
- Driving directions will be obtained by the worker prior to travel to an unfamiliar destination. A supervisor or manager will be aware of the route and destination of every driver.
- If, at any time, the driver is fatigued, the worker will stop at a rest place for a period of time that is required for sufficient rest.
- If a worker has been on duty for 8 or more hours, a rest period of 8 hours is required before driving from location.
- A log will be required for travel when rest times are required. Drivers should take rest breaks to reduce fatigue while travelling.
- The worker will have a form of communication that works properly, either a cell phone or satellite phone/radio/walkie talkie to be able to reach dispatch to check in or in case of emergency. This form of communication will be provided by the company.
- All vehicles will be equipped with emergency kits that may contain extra food and water, blankets, first aid kit, matches, candle, shovel, etc.
- Personnel should never work alone unless it is absolutely necessary.
- When requested to work alone, inherently dangerous jobs and tasks more commonly prone to accidents should be avoided.
- Ensure that any personnel who are required to work alone have had adequate rest and refreshments.
- Ensure well in advance that there will be an outside contact available to monitor the lone worker on a pre-arranged schedule for the duration of the time spent alone.
- Ensure that all authorities of people having jurisdiction will be aware that a worker will be at the selected work area at a particular time and will be alone.

33 LADDERS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to ladders. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instructions to their workers on protection requirements and training.
- Inspect work sites.

WORKER

- Inspect all ladders before using them.
- Follow all manufacturers' specifications.
- Select proper equipment for the task.

PRACTICES

There are two types of ladders in use on work sites: portable ladders and step ladders. The following safe practices apply to both types of ladders.

- Inspect all ladders before use to make sure they meet safety standards.
- Choose the right ladder for the job. Use CSA Standard ladders only.
- Store unattended ladders or tie them off at the top.
- Climb down and move a ladder instead of overreaching.
- Keep both metal and wood ladders away from electrical sources.
- Lock, guard, sign, and/or rope off a door when it's necessary to place a ladder in front of a door.
- Use barricade tape when working in congested areas.

USE OF PORTABLE LADDERS

- When setting up a ladder, secure the base and "walk" the ladder up into place.
- Protrude the ladder three feet (1 m) above the intended landing point.
- Set the ladder against the top support at a minimum 4:1 incline; at the proper angle of one horizontal foot to every four verticals. For example, 3 feet (1 m) horizontal to 12 feet (4m) vertical.
- Secure the ladder against movement before using it.
    - Place the ladder against a solid support.
    - Position the ladder on a solid base.
    - On solid ground: Tie the ladder securely and use a non-slip device on the ground.

    - On soft ground: Provide additional support. For example, a second worker can hold the bottom of the ladder to prevent movement while the work is in progress.
- Grip the ladder firmly using the three-point contact method (hands/feet and ladder) when moving up or down the ladder. Always face the ladder when using it, leaning the body into the ladder.
- Ensure side rails of a portable ladder extend at least 1 metre above a platform, landing, or parapet if the ladder is used as a means of access to the platform, landing, or parapet.
- Use a minimum overlap of three feet (1 m) on an extension ladder and lock the extensions in place. Never use an extension ladder in the inverted position.
- Adjust extension ladders only while standing on grade, not on the ladder.
- Use a lanyard and body harness when working on a ladder higher than ten feet (3m).
- **DO NOT** work from the top two rungs of the ladder.

USE OF STEP LADDERS

- Use only on clean, even surfaces.
- Lock the spreader bars on the stepladder in the fully open position – the incline of the front step section is one horizontal to six verticals.
- Tie off the step ladder and/or hold it in position if the step ladder is over ten feet (3m).
- **DO NOT** work from the top two rungs of the ladder.
- **DO NOT** use the tops of step ladders as a support for scaffolds.

34 LIFTING AND MATERIAL HANDLING

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to lifting and material handling. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Appropriate selection of worker(s) for task.
- Obtain mechanical lifting devices as needed.
- Train workers in proper lifting techniques.

WORKER

- Understand physical limitations.
- Get assistance with awkward or heavy (greater than 50 lbs) items.
- Use mechanical lifting devices whenever possible.

PRACTICES

Proper manual lifting and carrying is essential to worker safety and avoiding injury. Improper lifting and handling of materials may lead to loss of production and/or a worker incident.

Before a worker manually lifts, lowers, pushes, pulls, carries, handles, or transports a load that could injure the worker, a hazard assessment must be performed which considers:

- The weight of the load;
- The size of the load;
- The shape of the load;
- The number of times the load will be moved; and
- The manner in which the load will be moved.

Materials and packaging will be transported manually when appropriate to do so. If the physical demands are considered hazardous, these loads will be adapted so they can be managed appropriately. This may include specialized equipment to assist with heavy and awkward loads.

If a load is determined to be too heavy or too awkward and mechanical lifting is not appropriate, get assistance, break the load down to a manageable size.

Safe lifting and carrying method:

- Do not lift an object if you know it is too heavy.
- Mentally plan how you will make the lift.
- Check the load’s weight and shape.

- Ask for help if you need it.

Use the following proper methods to avoid inuring your back when lifting:

- Place one foot beside the object and one foot behind.
- Bend your knees so you are crouching beside the object.
- Grasp the object firmly, keeping your arms and chin tucked in and back straight.
- Pull in the object towards your stomach as close as possible.
- Straighten your legs but keep your back straight. Your legs should do the lifting, not your back.
- If turning while carrying the object, turn your feet, not your back. Never twist while you are raising the load.
- Never lift any object until you know how heavy it is. Make this a work habit. Test the load first, to determine if you can handle it.
- Keep in mind possible hazards to others when carrying loads.
- Keep the front end of extended loads (pipe, ladders, etc.) high and watch to avoid striking objects or other people.
- Never block your vision with your load.
- When carrying loads with others, first decide who is in charge, and ensure all know and agree before lifting. Then decide on the signals used and ensure all know and agree.
- Never release a load until you know all are ready.
- Never shove or jerk a load into place. When carrying a load, be ready to stop if the ground is uneven or slippery.
- Never pass or throw material through manholes or other small openings without stationing a person on the other side or being sure that everyone is clear.
- Never stack materials to an unsafe height.
- Never lift oxygen or acetylene tanks by yourself.

35 LIFTING AND LOADING

PURPOSE

Lifting and loading hazards are controllable by using proper procedures and handling. Please refer to OH&S Act, Regulation and Code Part 14-Lifting and Handling Loads for more information regarding lifting and loading.

PRACTICES

Take the time to learn more about proper procedures for lifting and loading, as well as basic material handling practices in the following areas:

- A pile of material that may collapse because it was loaded improperly.
- A possible explosion or fire caused by hazardous materials not being properly handled.
- Toxic materials affecting the workers because of a lack of knowledge of substances.
- Ripped bags or containers spilling material because of rough handling.

Truck Mounted and Overhead Cranes:

- Watch for overhead power lines and other obstructions at all times.
- The vehicle must be well blocked and, on a level, stable surface that can support the load of both the truck and the load.
- Plan each lift, being careful not to exceed the capabilities of the crane. Make sure materials are well stacked, tied, and secure.
- Ensure that workers are not below the lift area and cannot be struck by falling objects.

Forklifts:

- Lower the forks to the ground when not in use.
- Do not exceed the maximum load shown on the forklift data plate.
- Insert the forks all the way under the load.
- Position the load according to the recommended load center.
- Never move an unstable load; get help and repack the load if necessary.
- Never raise or lower the forks until the forklift is stopped and braked.
- Drive slowly, avoid sudden stops, and turn with care.
- Don’t lift a load that extends beyond the load backrest. If the load slides back, you could be severely injured.
- Communicate with co-workers about the job being done so everyone is aware.
- Be aware of overhead heights, entrances, and clearances needed when operating around equipment such as enclosed trailers, railway cars, and warehouse doors.

36 LOCKOUTS

PURPOSE

Lockouts stop and secure machines, processes, or systems. A properly installed lockout will protect workers from danger by controlling the unexpected start-up of equipment or the release of hazardous energy of substances. Workers who perform maintenance activities on equipment must be provided training on the Lockout/Tagout training program.

PRACTICES

If equipment is not locked out, the following situations could happen:

- Crushed limbs;
- Dismemberment;
- Lifelong disabilities;
- Death.

Hazardous energy sources include:

- Kinetic energy - moving equipment, moving materials.
- Electrical - open bus works, motors, generators.
- Flammable, chemical, combustible, corrosive - these may be in the form of gases, vapors, liquids, or solids.
- Potential - suspended loads.
- Thermal - steam, hot water, gases, liquefied gases (cold).
- Radiation - light, laser, radioactive.

Types of Lockouts:

- Electrical - soft wired (equipment that is plugged in), or hand wired (equipment with circuit breakers or disconnect switches).
- Hydraulic/Pneumatic - push/pull rod cylinder or drive motors. When using this type of lockout, make sure that any residual or stored system pressure is relieved (bled out).
- Blind/blank - this type of lockout guards against the release of a dangerous substance or material during maintenance. Normally it is done by securing valves in the closed position using locks. However, this lockout is NOT enough protection for working in confined spaces. (Follow appropriate regulations and procedures for confined space work).

How is it done?

A lockout is done by placing a lock and tag at the power source or lockout point. The tag has:

- A warning to other persons not to start or operate the device.
- The date the tag was installed.
- The worker’s name and signature.

Tags alone do not ensure safety. Because tags cannot disable the operation of equipment, a system that utilizes locks and tags must be used. If it is important enough to put a tag on it, it is important enough to put a lock-out on it.

Sample of Tag:

Lockout Procedure:

- Identify the equipment/machine/process to which the lockout is to be applied.
- Make sure the equipment/machine/process is de-energized and stopped.
- Identify the main isolating device(s) for the energy source(s) and isolate the equipment.
- Apply a personal lock.
- Try to start the equipment to ensure it will not start.
- A lockout logbook should be provided and used at each lockout station.

What to Use:

- If only one worker will be working in a controlled area, a simple padlock can control the switch.
- If several workers are involved, each should have their own lock and each lock should be used to secure a gang lockout assembly.
- The only person who should remove a lockout and tag is the worker who installed them, after first making sure the proper maintenance has been completed and that no one is at risk when the device starts up again.

This procedure applies to all company locations requiring worker protection from the accidental energizing of machinery, tools, and equipment. It is the responsibility of each supervisor to identify equipment which needs to be locked out. It is the responsibility of each staff member to follow the established lockout procedure. Only workers who are properly trained and are competent to safely perform the work without supervision or with only a minimal degree of supervision are to perform this work.

All workers are prohibited from performing maintenance on any equipment that is not locked out. Any heavy equipment that is unserviceable should be tagged to prevent accidental use. Attach a 'Do Not Start' tag to steering mechanism, (i.e., steering wheel or steering clutch levers), then place a sticky back 'Do Not Start' tag over the start switch.

More information than is found in the following rules is provided in the detailed work procedures.

Each piece of machinery or equipment requiring lockout will also need specific lockout steps. Group lockout procedures are to be used for large projects where multiple workers are working in a specific area

Lock Out Procedure:

- Shut off machine or equipment. Energy sources must be turned off, disconnected, and/or released before any maintenance is performed.
- Shut off energy source at control device (switch or valve – some machines may require more than one lock).
- Place and close lock on control device in the off position.
- Test control to be sure energy is off. A state of zero energy must be verified after a lock out device is installed.
- Once maintenance activities are complete, a supervisor must ensure that personnel are out of harm's way, slips, trip, and fall hazards have been cleared from the area, and guards are replaced. Each worker who affixed a lock to an energy control point must remove their own lock(s). Equipment start up can occur after all of these are completed.

Lock Out Rules:

- All equipment must be stopped and locked out by any person who is required to perform work in a location where the starting of equipment could constitute a hazard to him or others.
- Each person working on a machine is to use their own lock which shall be marked with their name or individual number.
- Under no circumstances shall locks be loaned or borrowed.
- When work is not completed at shift change, locks shall not be removed until persons coming on shift, or a supervisor has placed a lock on all control devices.
- Lock removal procedure – supervisors are to follow the set procedure for removal of locks left on in error.
- Any doubts or questions regarding lock out rules or procedures must be referred to supervisory staff.
- Workers shall not perform maintenance on equipment that is not locked out.

Failure to adhere to this procedure may result in disciplinary action.

37 MANUAL SNOW REMOVAL

Pre- Set-Up:

- Notify supervisor that you will be doing snow removal.
- Put on suitable and sufficient PPE.
- Inspect work area and equipment- check for cleanliness and any defective parts, report problems to a supervisor.
- Carry shovel, spreader & Safety-Sol to work site.
- If necessary, use cones to mark work area.

Procedure:

- Be extremely cautious throughout this procedure, it is very easy to slip on the snow and ice. Take small steps and walk slowly.
- Always shovel in small scoops and use your legs not your back when lifting - this will prevent strain.
- Always use your thigh as leverage for the shovel- rest the shovel handle against your knee and use as a teeter-totter.
- Do not reach- always move your feet.
- Shovel into piles within a close distance to you – do not block ramps or exits.
- When surface is exposed, spread a small amount of salt throughout walking areas.

Post Procedure/Take Down

- Clean off all equipment and return to appropriate storage area. Close bag of salt
- Inform supervisor of areas which you were able to complete

38 NORMALLY OCCURING RADIOACTIVE MATERIALS (NORM)

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to working in or around areas that may contain Naturally Occurring Radioactive Material (NORM). This practice applies to all Priestly Demolition Inc. employees and contractors.

RESPONSIBILITIES

SUPERVISOR

- Supervisors will ensure that all workers are properly trained to work with NORMs.
- Supervision shall obtain information regarding presence of NORM and TENORM in the workplace; ensure employees are fully trained in the hazards present, work procedures, safety precautions, and PPE.
- Supervisor shall examine work area where NORMs may be present.
- Supervisor shall ensure that workers have all PPE that is required.
- Supervisor shall read and sign off on all Field Level Hazard Assessments.

WORKER

- Workers shall understand the hazards, work procedures, safety precautions, and use of PPE to complete the required work safely.
- Workers shall report to the supervisor if they do not have the required training.
- Workers shall complete a Field Level Hazard Assessment before work commences.

PRACTICES

- Priestly Demolition Inc. management and supervisors shall be contacted when NORMs are suspected to be present at any work site.
- Workers shall suspend any further work until the area has been proven clear of NORMs or a safe work procedure and hazard assessment has been completed.
- Hazard assessment and safe work procedure shall be relayed to workers along with any special PPE requirements.
- All Field Level Hazard Assessments will be redone and signed off.
- The number of workers working in the area shall be restricted.
- Work area will be monitored as required.

DEFINITIONS

- **NORM -** Naturally Occurring Radioactive Material – radioactive isotopes that occur naturally in the environment.
- **TENORM -** Technologically Enhanced Naturally Occurring Radioactive Material - naturally occurring radioactive materials that have been concentrated or exposed to the environment through human activity.

INFORMATION

Radiation naturally occurs in our environment from two main sources: cosmic rays external to the earth and radioactive materials found in the earth's crust. Low level radioactive scale can be produced in the course of some oil and gas operations. Oil and gas production moves NORM to the surface where it accumulates and is classified as technologically enhanced naturally occurring radioactive material (TENORM).

TENORM deposits may be found in piping, brine and sand filters, saltwater disposal injection wells and equipment, headers, vessels, pumps, and to a lesser extent compressor cylinders, bottles, and piping. Produced water can contain radium 226 and 228 that may precipitate as scale in knockouts and scrubbers. In the gas stream, Radon gas decays to Lead-210, then to Bismuth-210, Polonium-210, and finally to stable Lead-206. Radon decay elements may occur as a film on the inner surface of inlet lines and compressor components.

39 OFFICE SAFETY

There is a common misconception that serious incidents are confined to field operations and activities. However, many serious incidents occur within the seemingly safe confines of the office. Most of these incidents involve tripping, slipping, and falling, resulting in strains, sprains, and lacerations to the head, arms, hands, and legs.

The potential for exposure to electrocution, fire, violence, acts of terrorism, and motor vehicle accidents are but some of the situations that the office worker may have to contend with. The following are some basic guidelines and precautions that workers should take to help make the respective offices a safer workplace for those who staff the office and visitors to the office.

Filing and Storage Cabinets

- Do not overload the top shelves or drawers.
- Open drawers one at a time and close them after use to avoid overbalancing the cabinet.
- Use handles for opening and closing the drawers to avoid pinched and broken fingers.
- Place heavier files or materials on the bottom shelf or drawer.
- Do not pile material on top of shelves in such a way as to impact lighting, ventilation, and/or fire suppressant systems.

Sharp Edges and Objects

- Do not dispose of glass or other sharp objects in a wastepaper basket or bin.
- Always close the blade after using a paper cutter.
- Ensure scissors or other cutting devices are suitably stored and secured.
- Be careful when using a paper shredder to avoid catching jewelry, ties, clothing, or long hair in the blades.
- Do not use light tables or other glazed surfaces as stepping stools or ladders.

Electrical Outlets/Cords

- Ensure all electrical and extension cords are in good condition and that they do not become overloaded.
- Do not overload electrical plug outlets.
- Do not run electrical or telephone cords across aisles or walkways where they may become damaged or present a slipping or tripping hazard.
- Remove extension cords from the electrical outlet by pulling on the plug only; never pull on the cord.
- Ensure suitable grounding is provided on all extension cords and appliances.

Floors and Aisles

- Keep aisles clear of spills, debris, and storage boxes.
- Use handrails when climbing or descending stairways.

- Do not obstruct your view by carrying oversized loads.
- Ensure exit signs are suitably located and illuminated.
- Ensure access and egress doors and hardware are serviceable.
- Ensure emergency lighting is suitably located, serviced and in operational condition.
- Correct any unsafe conditions and report them to a supervisor.

Fire Precautions and Safety

- Learn the location of fire extinguishers in your area.
- Familiarize yourself with the escape routes from your place of work.
- Ensure staff members are aware of local and Corporate Emergency Response Plan requirements, especially those members who may have designated responsibilities within the plan.
- Conduct regularly scheduled fire and emergency evacuation drills.
- Never try to take an elevator to escape from a fire; always use the stairs.
- Caution should be demonstrated when using office-type flammable cleaning fluids.
- Keep flammable materials in approved capped and labeled containers.
- Do not dispose of “controlled products” (batteries, solvents, etc.) via the general disposal system.

Important: If you see any danger within an escape route such as stored boxes or equipment which is blocking passage, clear the area immediately and notify your supervisor.

Safe Working Position at a Desk

In order to prevent muscle strains and other injuries, it is important to maintain a comfortable working posture in which your joints are all naturally aligned. Working with your body in a neutral position helps to reduce stress and strain on the muscles, tendons, and skeletal system. This will help to prevent the development of a musculoskeletal disorder (MSD). The following steps should be taken to prevent any MSD injuries while working at your desk:

- Head should be relatively level or slightly bent forward. Most computer monitors have adjustable heights. If yours does not, a phone book or similar can be placed underneath to adjust the height.
- Hands, wrists, and arms should be straight and in-line. Your forearms should be almost parallel with the floor.
- Shoulders should be relaxed. Let your arms and elbows rest and keep them close to your body.
- Feet should be flat on the floor or on a footrest. If you cannot maintain this, try adjusting your chair height.
- Try to sit up straight and keep your back against the chair’s back rest.

Regardless of how good your working posture may be, it is important to take micro breaks during the day. During these breaks, get up and walk around for a couple of minutes. Working in the same position for prolonged periods is not healthy. Proper stretching will also keep you feeling better and will help to prevent any injuries.

40 PICKER

Personnel Requirements:

- Only personnel approved by manager or supervisor may operate the picker.
- Operator will take the necessary safety precautions to ensure the safety of fellow employees.
- All persons must be in view of operator before lifting.
- Swamper should watch load and operator at all times.
- No standing directly underneath load.

Procedures:

- Outriggers should be extended before lifting and fully retracted before moving.
- Do not jerk the boom with a lifted load.
- Always move boom smoothly and steadily to prevent loss of control or loss of load.
- Always boom in when lifting a heavy load.
- Load shall remain as close to the ground as possible when boom is in motion.
- When moving a load on a hook use tag line.

Inspection and Maintenance Guidelines:

- Operators shall check for any irregularities or power losses.
- Gauges must be operational and legible.
- All hydraulic and fluid lines shall be free of nicks, bulges, abrasions, or leaks.
- All exposed gears, drive belts, pulleys, clutches, and brakes shall be adequately guarded.
- Outriggers shall extend and contract completely with pin end retainers in good operational condition.
- All cables (boom, hoist, and pendant) shall be checked for excessive wear or damage.
- Slings should never be knotted or kinked to prevent wearing.

41 PORTABLE GRINDERS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to portable grinders. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensure that workers are properly trained in the use of portable grinders.
- Perform work site inspections.
- Perform work hazard analyses.

WORKER

- Ensure that you are properly trained and take all necessary safety precautions.
- Follow all safe work practices.
- Follow all manufacturers' specifications.
- Follow and practice the safe work practices below.
- Familiarize yourself with portable grinding operations before using them.

PRACTICES

Portable grinders make many areas of construction work easier and more efficient. Although portable grinders are easy to use, they can be very dangerous if not treated and used with respect. Grinding wheels need to be used properly and only on equipment and material that they are intended for. Misusing a grinding wheel or using a cracked or damaged grinding wheel can lead to serious and even fatal injuries. Portable grinders, grinding wheels, and buffing wheels must be stored, used, and maintained properly.

Always follow safe work practices when using portable grinders.

- Inspect all equipment regularly and before each use.
- Inspect the grinding wheel for cracks or damage before each use. Never use a damaged grinding wheel.
- When changing or replacing wheels, ensure that they are centered and seated properly.
- Always unplug the grinder before changing the grinding wheel.
- Always use a grinder wrench, never use your hand, to tighten or loosen the grinding nuts when removing or changing a grinding wheel and do not over-tighten a grinder nut.
- Before using a new or replaced grinding wheel, run it at operating speed to check for vibrations caused by an improperly seated wheel.
- Never use a grinder without a guard.
- Always use the manufacturer's guard. Never use a modified or damaged guard.

- If you drop a portable grinder, check the wheel and casing before turning the grinder back on.
- Use all required personal protective equipment for the work site and portable grinders such as gloves, safety goggles, face shields, and steel-toed boots.
- Always make sure that the grinding wheel's maximum speed matches or exceeds that of the grinder. Never use a grinding wheel that is not matched to, or intended for, that particular portable grinder.
- Do not use a grinder near flammable materials.
- Always have a partner hold the material you are cutting or secure in vise.
- Only use portable grinders for jobs that they are intended for.
- Only use grinding, buffing, and cutting wheels for their intended purposes.
- Tag out any damaged equipment.

42 POWER ACTUATED TOOLS

There are several tools utilizing an explosive charge in use throughout the construction industry.

The manufacturers of these devices provide detailed instructions regarding their use and maintenance. These instructions, along with the legislation specifically set out for their use, shall be closely always adhered to.

The following general recommendations apply to all explosive / powder actuated tools.

- Only properly trained and qualified operators are to use this type of tool. The user shall possess proof of this training issued by the manufacturer, authorized dealer/distributor, or other competent source.
- The tool should be loaded just prior to use with the correct load for the job anticipated. Tools should never be loaded and left to sit or be moved to an alternate work site after being loaded.
- The tool should never be pointed at anyone, whether loaded or unloaded. Hands should be always kept clear of the muzzle.
- Explosive/powder actuated tools should always be stored in their proper lockable boxes.
- Explosive/powder actuated tools must never be used in an explosive atmosphere.
- When used, the tool must be held firmly and at right angles to the surface being driven into.
- Eye protection must be worn by the operator. Where there is a danger of spilling, full face protection must be worn. Hearing protection is also to be worn in confined areas.
- To prevent free-flying studs, ensure that the material being driven into will not allow the stud to completely pass through it (i.e., glass block, hollow tile, etc.).
- Manufacturers' recommendations should be consulted and followed whenever there is a doubt about the material being driven into, maintenance procedures, or load strength to be used.
- Always be aware of the other workers. Where a hazard to other workers is created by this operation, signs and barricades identifying the hazard area are mandatory.

43 POWER AND HAND TOOLS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to power and hand tools. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Ensure that workers are properly trained in the use of power and hand tools.
- Deem employees competent using the competency management system in the use of power tools and document training/file in the employee personnel file.
- Ensure inspection and maintenance records are recorded and available to workers for review.
- Ensure defective tools are removed from service immediately and sent to a qualified person for repair.
- Perform work site inspections.
- Perform work hazard analyses.

WORKER

- Ensure that you are properly trained and take all necessary safety precautions.
- Sign off on competency training for the use of power tools.
- Ensure pre-use inspection is completed. If tool is defective, it must be removed from service immediately.
- Follow all manufacturers' specifications.
- Follow and practice the safe work practices below.
- Only use tools for purposes they are designed for.
- Select tools that are ergonomically correct for the task and the work area.
- Ensure proper PPE is worn at all times for the task and consider double eye protection for debris from overhead. A FLHA must be completed prior to task being carried out.

PRACTICES

Proper use and maintenance of power tools and hand tools in compliance with the manufacturer's guidelines protects workers from injuries associated with those tools. The following are some guidelines to follow:

- Only employees that have been deemed competent after a review with supervisory personnel, received training on the tool, documented and signed by both parties, will the employee be allowed to operate the power tool.
- Electrical tools must have 3 wire (grounding) cord and plug, excluding double insulated tools.
- Only use grinder discs, buffers, and stones for their designed applications and at their rated speeds.

- Ensure that stationary grinders have properly adjusted tool rests and that the stones are properly dressed.
- Check to make sure that angle grinders have the Original Equipment Manufacturer (O.E.M) guard in place before use.
- On/off switches must be functional and positioned so that the operator has access at all times.
- Only use accessories that are designed for use with the tools specified.
- Saw blades must be designed for the product being cut and at the rated speed, and Original Equipment Manufacturer (O.E.M) guards must be in place and functional.
- Chisels, punches, hammer, and wrenches must have all burrs ground from striking area. Chisels, punches, screwdrivers, etc., must have properly dressed tips.
- Replace cracked or splintered handles before beginning or continuing use of the tool.
- Repairs to tools must only be performed by qualified personnel, using Original Equipment Manufacturer (O.E.M) parts or equivalent.
- All tools must be cleaned after use and repairs made before being properly stored.

General Guidance for Hand Tools

- All workers using hand tools must be properly trained in their use and must wear the appropriate PPE (safety glasses or goggles at a minimum).
- Use quality tools.
- Select the right tool for the job. Substitutes increase the chances of having an accident.
- Avoid using hand tools with your wrist bent. Use tools designed to allow your wrist to stay straight.
- Pull on a wrench or pliers; never push unless you hold the tool with your palm open.
- Maintain tools carefully. Keep them clean and dry and store them properly after each use.
- Inspect tools for defects before use. Keep tools in good condition at all times. Repair or replace defective tools.
- Replace cracked and broken handles on files, hammers, screwdrivers, or sledges.
- Replace worn jaws on wrenches, pipe tools, and pliers.
- Redress burred or mushroomed heads of striking tools.
- Keep cutting tools sharp.
- Carry tools in a sturdy toolbox to and from the work site.
- Keep the work environment clean and tidy to avoid clutter which may cause accidents.
- Use a heavy belt or apron and hang tools at your sides, not behind your back.

DON'T:

- Use tools for jobs they are not intended to do.
- Apply excessive force or pressure on tools.
- Cut towards yourself when using cutting tools.
- Hold the stock in the palm of your hand when using a cutting tool or a screwdriver.
- Wear bulky gloves to operate hand tools.
- Throw tools. Hand them directly to workers.
- Carry sharp tools in your pocket.

Carry tools in a way that interferes with using both hands on a ladder, while climbing on a structure, or when doing any hazardous work.

44 POWERED HAND DRILLS

- Wear proper eye and hearing protection.
- Keep drill vents clear to maintain adequate drill ventilation.
- Keep drill bits sharp at all times.
- Keep electrical cords clear of the drilling area.
- Secure the material being drilled to prevent movement.
- Slow the rate of feed before breaking through the surface.
- Do not use a bent or damaged drill bit.
- Do not exceed the manufacturer's recommended maximum drilling capacities.
- Do not use high-speed steel bits without cooling or lubrication.
- Do not reach under or around material being drilled.
- Do not overreach. Keep proper footing and balance at all times.
- Do not drill with one hand while holding the material with the other.
- Drill a small pilot hole before drilling large holes.
- Disconnect the power supply before changing or adjusting the drill bit or other attachments.
- Remove the chuck key before connecting the drill to the power supply.

45 POWER LINES AND ASSURED GROUNDING

Priestly Demolition Inc. will adopt the regulations and use them as safe work practices when working near high voltage lines and low voltage lines.

Working around High Voltage Lines

Minimum Clearance

(1) The employer must ensure that at least the minimum applicable distance specified in Table 19-1 (below) is maintained between exposed, energized high voltage electrical equipment and conductors and any worker, work, tool, machine, equipment, or material, unless otherwise permitted by this part.

(2) The employer must accurately determine the voltage of any energized electrical equipment or conductor and the minimum distance from it required by AB regulations.

Table 19-1: General limits of approach

Voltage Phase to phase	**Minimum distance**	
	Meters	Feet
Over 750 V to 75 kV	**3**	10
Over 75 kV to 250 kV	**4.5**	15
Over 250 kV to 550 kV	**6**	20

OVERHEAD ELECTRIC LINES

Where overhead electric conductors are encountered, the employee is responsible to:

- Determine the voltage in the line by contacting provincial Power Corporation and maintaining the minimum clearance distance indicated.
- Ensure the workers are maintaining the minimum clearance distance.

NOTE: Provincial Power Corporation may need to de-energize or cover the line.

Working around Low Voltage Lines

A worker must be informed of the potential electrical hazards before being permitted to do work in proximity to energized electrical conductors or equipment.

Note: If excavating near underground utilities, refer to the excavation regulation requirements.

NOTE: THE ONLY POWER LINES THAT ARE LOW VOLTAGE ARE THE LINES WHICH RUN FROM POWER POLES DIRECTLY TO HOMES OR APARTMENT BUILDINGS. THE

LINES RUNNING ALONG STREETS ARE HIGH VOLTAGE LINES.

Work Practices Around Low Voltage Lines:

The following work procedures will be adhered to when working close to low voltage power lines:

- Ensure the line you are working close to is, in fact, a low voltage line.
- Do not store any materials or equipment close to the line.
- Keep conductive material and equipment away from the line.
- If work must be conducted close to the line, use extra caution not to touch the line.

AB Electrical Regulation: Grounding portable equipment

(1) Portable electrical equipment having double insulation or equivalent protection, and so marked, need not be grounded.

(2) Portable electrical equipment, required to be grounded and not permanently connected to the wiring system, must be effectively grounded by the use of approved cords and polarized plugs inserted in grounded polarized receptacles.

AB Electrical Regulation: Ground fault circuit interrupters

(1) When used outdoors or in a wet or damp location, portable electrical equipment, including temporary lighting, must be protected by an approved ground fault circuit interrupter of the class A type, installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided.

(2) A ground fault circuit interrupter must not be used in place of grounding except as permitted by the *Electrical Safety Act* and the regulations.

Assured Grounding

An assured grounding program may be used as an alternative to GFCI's to meet the requirements of section 19.15(1) of the regulations. The purpose of this program is to ensure that the black wires (hot), white wires (neutral), and green wires (ground) of extension cords and power tool cords are properly connected. This is done by testing every extension cord and power tool when it is first put into service, following repairs, and every three months. An assured grounding program contains five parts:

1. Responsibilities

It is the responsibility of the company to ensure that the program is enforced and used as the program is intended. The supervisor on site is responsible for ensuring that all employees understand and follow the assured grounding program. The supervisor is also responsible for contacting our electrical contractor to inspect and mark the cords as required, and to retrain the employees every three months.

2. Worker training

All workers using extension cords and power tools under an assured grounding program must be trained on the program. Workers will be trained when they are first hired, as well as every three months for our scheduled inspections and training.

3. Daily visual inspection

The persons who will be using extension cords on power tools must check them daily for damage. Any damage found must be repaired before the cord or tool is used. Damaged extension cords of tools must not be spliced. The cords can either be replaced or shortened to remove the damaged portion.

SK OHS Regulation ("*Regulation*") states:

(1) When used outdoors or in a wet or damp location, portable electrical equipment, including temporary lighting, must be protected by an approved ground fault circuit interrupter of the class A type installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided.

Portable electrical equipment means any equipment plugged into a 120-volt, 15/20-amp system. This includes all hand-held power tools, temporary lighting, and extension cords.
The most common problem with “GFCIs” is “nuisance tripping”. If continuous tripping occurs, check the power tool and cord for damage**. GFCIs usually trip for a reason**.

Precaution that can be taken to prevent “nuisance tripping”:

- If you install GFCI’s in a dry location, use portable GFCI’s that is rated “rainproof”.
- Only use extension that are rated for “hard use” or better.
- Do not use extension cords longer than 45 meters or 150 feet.

Keep all power tools and extension cords dry when not in use.

46 PROPANE

The following safe work procedures shall be adhered to work with propane safely and efficiently:

- Store all (empty or full) propane bottles in an upright position at a minimum distance of twenty-five (25) feet from heating sources (torches and burners).

NOTE: FOR EVERY DEGREE INCREASE IN TEMPERATURE, THERE WILL BE AN INCREASE IN PRESSURE IN THE CYLINDER.

- Transport propane cylinders in an upright position.

NOTE: IF CYLINDERS ARE STORED OR TRANSPORTED IN A HORIZONTAL POSITION, LIQUID. GAS COULD ENTER THE BUILT-IN SAFETY DEVICES (pressure relief valve) **AND CAUSE THEM TO FREEZE-UP.**

- Should a worker detect a leak (foul smell) from the cylinder, close valve containers, remove leaking cylinder to ensure the propane will not leak and build up in low places. Tell the foreperson, he or she will call a propane company.
- Ensure cylinders are stored and secured on a firm base.
- Adjust the regulators and valves to avoid cylinder freeze up.
- Never use an open flame to unfreeze a cylinder.

NOTE: AIR THAT SURROUNDS THE CYLINDER IS REQUIRED TO CONVERT THE LIQUID PROPANE INTO VAPOUR. THE AIR TRANSFER IS LIMITED TO THE LIQUID PORTION OF THE CYLINDER. A HEAVY WITHDRAWAL OF PROPANE FROM THE CYLINDER AT A RATE THAT IS GREATER THAN THE SURROUNDING AIR COMPLETING THE CONVERSION FROM LIQUID TO VAPOUR WILL RESULT IN REFRIGERATION OF THE LIQUID GAS (FREEZE UP).

THIS CAN BE OBSERVED BY A HEAVY FROST BUILD UP ON THE OUTSIDE OF THE CYLINDER. IF FREEZING CONSTANTLY OCCURS, THE CAUSE MAY BE WITHDRAWING TOO MUCH PROPANE AT A TIME. USING A LARGER CYLINDER WILL AVOID FREEZE UP OF CYLINDERS.

- Place cylinders and pressure-regulating devices where they will not be damaged.
- Protect hoses from damage and inspect before attaching to bottle.
- Use protecting collars to protect cylinder valves.
- se hose and regulating devices that are approved for liquid propane gas i.e., 350 lbs. working pressure and vapour gas 125 lbs working pressure.

NOTE: PROPANE VAPOUR IS HEAVIER THAN AIR. ANY ESCAPING GAS WILL SEEK OUT LOW PLACES.

- Use soap solutions to detect leaks in cylinders and regulating equipment. Never use matches or other sources of ignition.
- Use cylinders that have a test or re-test date less than ten (10) years old.
- If propane cylinders or attachments catch fire:
    1) Shut off cylinder valve.
    2) Evacuate area until it is safe to return.

NOTE: IF IT IS NOT POSSIBLE TO SHUT OFF CYLINDER VALVE

1) Allow gas to burn.

2) Evacuate area and call the Fire Department.

Propane Handling and Storage:

- Wear gloves and a long-sleeved shirt when handling propane cylinders.
- Do not smoke or have open flames around or near propane cylinders.
- Inspect propane cylinders for damage prior to use or filling. Cylinders containing dents or gouges to their walls larger than the size of a quarter shall not be filled or used.
- Inspect cylinder's protective collar and foot ring for broken welds or corrosion.
- Ensure that the cylinder valve outlet has a safety plug installed when not in use, and that the cylinder safety relief valve is unobstructed.
- Handle propane cylinders in an upright position, secured to wheeled carts/dollies. Avoid dropping, bumping, or rolling cylinders on their sides.
- Store cylinders outside, at ground level, in a level upright position on an elevated base to prevent ground thawing and cylinder tipping.
- Do not store propane cylinders at roof level.
- Do not store propane cylinders indoors, in a heated, enclosed, or inhabited space.
- Do not hoist propane cylinders to roof level by their cylinder valves or protective collars. Use a properly designed propane cylinder-hoisting cage at all times.
- Do not attempt to deliver propane cylinders to roof level by carrying them up extension ladders.
- Keep the area around propane cylinders clear and avoid placing roofing materials or clothing on top of cylinders.
- Place a charged ABC type fire extinguisher in the work area. Do not place the extinguisher next to the propane cylinder.
- Complete a Transportation of Dangerous Goods (TDG) training program when handling, offering for transport or transporting propane.

Transporting Propane

Transportation of Dangerous Goods Regulations ("TDG")

1. Transport all cylinders in an upright position.
2. Cylinders must be properly secured.
3. Labels on cylinders must be secured.
4. You must not transport more than 5 cylinders (any size or combination of sizes), without proper TDG documentation and Hazmat Placards (#1075) in place.
5. WHMIS – Safety Data Sheets for propane should be in the vehicle at all times.

47 PRE-JOB MEETING

PURPOSE

The pre-job meeting is a crucial step in the job process. The pre-job meeting is performed with the intent to review and communicate important information to every person on the work site. The pre-job meeting will cover topics such as identified hazards and ways to eliminate or control them, job processes, scope of the project, and is used to identify the qualified first aiders on site.

Every person in attendance at the pre-job meeting is required to understand all topics discussed and must ask for clarification if understanding is not achieved. Attendees will sign off on the pre-job meeting document to indicate attendance and participation.

PRACTICES

Listed below are suggestions for an effective pre-job meeting:

- Gather all persons on the worksite.
- Use the appropriate pre-job meeting document to record all topics covered and the persons in attendance.
- Review job scope.
- Review hazards on site and ways to control or eliminate them. Make sure the controls (engineering, administrative, and PPE) are understood and implemented if required.
- Review job processes, practices, procedures, and JSAs. Have copies available for reference.
- Review emergency response plan(s) to ensure all workers understand their responsibilities in the event of an emergency on site.
- Identify the trained, qualified first aiders on site.
- Have discussion time to clarify and answer any questions asked.
- Ensure all attendees sign their name on the pre-job meeting document to indicate their understanding and participation.
- Post the pre-job meeting document on the safety board on site for future reference.

48 PREVENTATIVE MAINTENANCE

PURPOSE

- Adherence to applicable legislation, standards, and manufacturers' specifications;
- Hiring and using the services of those who are appropriately qualified as maintenance personnel; and
- Ensuring that all equipment maintenance and repair is scheduled and documented.

The supervisor shall be responsible for the application of the program in his/her area of responsibility.

Introduction

Making sure that employees use equipment and tools in a proper manner is not sufficient; it is vital that tools and equipment be properly inspected, maintained, and kept in good working condition. Preventative maintenance will reduce the risk of injury and damage and lost production.

Maintenance Personnel Qualifications

The qualifications of maintenance personnel are crucial to the success of a preventative maintenance program. All individuals who perform maintenance work will have the appropriate skills, accreditation, and/or certification. This applies to both Priestly Demolition Inc. employees and contracted maintenance services personnel.

Operator Qualifications and Training

All individuals who operate our mobile equipment, cranes, vehicles, etc. will have the appropriate licensing, skills, accreditations and/or certification. This applies to both company employees and contracted equipment services personnel.

The approval process includes the following:

- Possession of a valid operator's license appropriate to the type of equipment.
- Successful completion of a practical operating exam administered by competent and authorized personnel.
- Vision test to meet the appropriate standard. Vision tests must be conducted by competent and authorized personnel.
- Audiometric testing with or without a hearing aid must be adequate for the specific operation. These tests will be conducted by competent and authorized medical personnel.
- The appropriate medical monitoring (vision and/or audiometric) will be done as per the requirements of any provincial or federal legislation.

Training - The operator should be trained to:

- Know their responsibilities to operate the equipment in a safe manner including visual inspection of equipment before use;
- Be familiar with and comprehend the safety requirements for the piece of equipment which they are to operate;
- Know the manufacturer's operating and maintenance procedures;
- Communicate to maintenance personnel when there is a problem with a specific piece of equipment; and
- Know the appropriate hand signals and/or other requirements set by the company, owner, or dictated by site conditions.

Records

The preventative maintenance program must contain a recording system. Part of this system should be made up of equipment inventories and schedules. In addition, the recording system should document what maintenance work was done, when, and by whom.

Monitoring

The monitoring functions in the program fall into two areas. First, the people responsible for operating and/or maintaining equipment must monitor that equipment to ensure that appropriate checks and maintenance are done. Secondly, management should monitor the entire program to ensure that it is functioning in accordance with company policy.

Scheduling Inspections and Maintenance

All mobile equipment is to be inspected and maintained according to the manufacturer's recommended schedule, as a minimum. Records of all inspections and maintenance must be completed and maintained in the equipment as well as filed for review and approval.

Maintenance of equipment, release of lubrication fluids, etc., is performed only in approved areas. Spills and leaks from equipment are to be documented and cleaned up promptly.

49 RADIO USE

- All employee vehicles that travel busy roads daily must be equipped with radios.
- Use them professionally.
- Two-way radios are a very important part of the operation.
- No coarse language is to be used on the radio.
- Report any misuse of the radio system.
- Employees must know the radio channels and how to use them.

Driving on Radio Controlled Roads

- Road signs should be posted at the beginning of all roads.
- These will indicate the road name and radio frequency.
- Determine road identification radio frequency and the direction of loaded haul before entering a haul road.
- Call to indicate your location, your direction of travel, and the type of vehicle you are in as you enter the road.
- All precautions should be taken with public and commercial vehicles while traveling on any haul road.
- Avoid unnecessary radio chatter. Ensure your conversation is concise and to the point.
- Remain on the proper channel at all times while traveling on the road.
- Call to indicate your position at every kilometre sign and state whether you are ‘empty’ or ‘loaded’ or travelling ‘up’ or ‘down’. Be aware of the terminology on site and use it appropriately.
- Indicate when you are clear of the road, at a pull-out, or leaving the road altogether.
- Avoid calling ‘nickname’ locations, as the others may not recognize that description.

50 RESPIRATORY PROTECTION

PURPOSE

If working around unprotected respiratory hazards, immediate or long-term effects could be experienced. Knowing when and how to use respiratory equipment can save lives. Please refer to OH&S Act, Regulation and Code Part 18-Personal Protective Equipment for more information regarding respiratory protection.

PRACTICES

Hazardous jobs that require respiratory protection equipment may include:

- Grinding or cutting materials that produce dust.
- Welding, which produces fumes.
- Mixing chemicals, which produces vapors or mists.
- Entry into confined spaces.
- Working in areas that contain toxic substances.
- Clean up procedures which use solvents, acids, alkalis, and/or may create dusts, fumes, mists, vapors, or gases.

Immediate effects will become evident in seconds, minutes or hours and may include:

- Burning sensation;
- Dizziness;
- Death;
- Shortness of breath; or
- Unconsciousness.

Long-term effects after many years of exposure may include:

- Silicosis;
- Cancer of the lung;
- Impaired lung function; or
- Becoming sensitive to certain chemicals.

Respiratory equipment only works if it fits right. Ensure the following:

- Make sure equipment is the right size.
- Do not strap equipment on too tight.
- Beards, sideburns, mustaches, and stubble are not permitted with respirator use as they prevent a good seal to the face.
- Fit test to verify the seal.
- Eyeglasses may affect the fit, corrective lenses may be fitted inside of a full-face shield.
- Do not wear contact lenses - dry air can cause problems.
- Be aware of the temperature. Cold temperatures can cause fogging, valve sticking, and rubber stiffness.
- If it doesn’t fit properly, don’t use it.

51 SAFETY BARRICADES

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to safety barricades. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instruction and training to workers on protection requirements.
- Perform hazard analyses.
- Perform work site inspections.
- Review and sign off on worker's Field Level Hazard Assessment.
- Relay to workers the color of warning tape or barricade that will be required for the specific job.

WORKER

- Inspect area before work starts and when returning from breaks.
- Complete Field Level Hazard Assessment.
- Put up warning barricade or tape as required.
- Follow all safe work practices in the Priestly Demolition Inc. HSE manual.
- Follow all manufacturers' specifications for the installation of barriers.

PRACTICES

Barricades may be made of wood, plastic, tape, or other materials depending on the area and use. Some types of barricades and their use are listed below.

- **Construction Tape** – is used in construction zones to notify people about ongoing construction and that there are possible hazards within the demarcated area. Construction tape usually employs a yellow-black color combination and incorporates printed text, such as "Under Construction", "Caution", "Work Zone", and "Keep Out" (among others). This type of barrier tape is commonly found at the site of renovations, demolition, and minor repairs.

- **Hazard Tape** – is used in locations containing a substantial danger. Examples include electrocution hazards or areas within which there is a risk of exposure to toxic chemicals. Hazard tape is available in different color combinations, each of which indicates certain classes of threat. For example, yellow-black tape is used to signal the presence of a physical hazard (e.g., a hole), while magenta-yellow denotes a radiation hazard. This type of barrier tape is commonly used in laboratories, production areas, and industrial zones. Ensure that others in the work area are aware that you are using compressed air, and that they are aware of the potential hazards.

- **Traffic Control Barrier** - this type of barrier tape, as its name implies, is used to control traffic, whether foot traffic or vehicle traffic. Traffic control device tape is used as a temporary traffic signal to redirect traffic during a parade or whenever a road is closed. These are usually brightly colored, either in solid orange or orange-white combination.

OSHA-SPECIFIED BARRICADE TAPE COLORS

1. Red / White for Fire Prevention and Protection Equipment
2. Black / White for Housekeeping and Aisle Marking
3. Magenta / Yellow for Radiation Hazards
4. Green / White for Safety and First Aid
5. Blue / White for Defective Machinery
6. Orange / White for Traffic and Caution Warning
7. Black / Yellow for Physical Hazards

52 SAFE WORK PERMITS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to Safe Work Permits. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instruction and training to workers on the requirements associated with the Safe Work Permit System.
- Ensure that all workers receive all **Client Specific Training** required.
- Perform work site inspections.

WORKER

- Complete all **Client Specific Training** required.
- Understand when a Safe Work Permit is required by clients.
- Follow all items addressed on the Safe Work Permit.
- Using a Safe Work Permit as a guide, complete the Priestly Demolition Inc. Field Level Hazard Assessment.
- Follow all safe work practices in the Priestly Demolition Inc. HSE manual.

PRACTICES

- Follow the client's requirements listed on the Safe Work Permit as well as all Priestly Demolition Inc. Safe Work Practices and Safe Job Procedures.

53 SCAFFOLDS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc.' practice related to scaffolds. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instructions to their workers on protection requirements and training.
- Inspect work sites.
- Select equipment.
- Ensure workers are competent.

WORKER

- Inspect all scaffolds before using them.
- Follow all safe work practices.
- Follow all manufacturers' specifications.

PRACTICES

All scaffold and work platforms must be constructed in accordance with the regulations of OH&S, as a minimum standard. Where lumber or planks are used as a workstation or for scaffolding, only top-quality lumber capable of holding workers is used.

Scaffolding must be erected, used, maintained, and dismantled in accordance with the manufacturer's specifications. Structural members must be securely fastened together as designed by the manufacturer.

- All scaffolding or other elevated work platforms must be erected or dismantled by a qualified scaffolder and used in accordance with PROVINCIAL OH&S / WCB REGULATIONS.
- Only scaffolders are allowed to be on, or under a scaffold that is being constructed. If there is a red tag, or no tag, do not use the scaffold.
- Any scaffold that is being constructed in an area where material could fall to a lower elevation than the scaffold base must have the area below roped off.
- Adequate barriers and/or amber warning lights must be used to warn pedestrian and vehicle traffic of the elevated platform.
- All work platforms at a height of 6 feet (1 .8 meters) or more must be a solid full width surface, surrounded by a 2' x 6' (5 cm x 15 cm) toe board and must have a guard rail at a height of 36" to 42" (90 cm to 110 cm) and a mid rail set at 1/2 the distance between the guardrail and the toe board. Double clamps must be installed below each deck for tube and clamp scaffolds. All holes in the scaffold deck must be covered with 3/4" plywood, nailed in place.

- Scaffolding must be anchored at intervals of 15 feet (4.5 meters) vertically and 20 feet (6 meters) horizontally by lashing or other means.
- All scaffolding frames must be C.S.A. approved type securely locked together.
- All planking used in the platform must be secured against lateral movement by using nailed cleats or other positive means.
- Handrails must not be used to anchor or support any scaffolding.
- When access ladders to the working platform of a scaffold must be built on the inside of the scaffold frame, the ladder must extend 3 feet (1 meter) past the working platform through a guarded access hole. The top section of all ladders must be double clamped.
- Scaffold access ladders higher than 10 feet (3 meters), where there is room to fall off the ladder, must have a cage provided.

TAGGING

- RED TAG - not complete, not safe, do not use
- YELLOW TAG - complete and safe under specified conditions
- GREEN TAG - complete and safe to use

USE

Scaffolding is used any time an elevated job cannot be safely completed using a ladder or manlift. Scaffold is recommended to reduce exertion, provide adequate access, and a stable work platform in confined areas.

- Only a qualified scaffolder can erect, modify, and dismantle a scaffold.
- Loading of typical scaffolding must not exceed 25 psf (125 kgs. per square meter), including people and material (Example only: 8’ x 4’ x 25 lbs. = 800 lbs. load limit or 2 meters x 1 meter’s x 125 kg/sm. = 250 kgs. load limit).
- Scaffolds that are required to support loads greater than 25 psf (125 kg/sm.) must be specifically designed for the loads imposed.
- Access to scaffolding must not be made until a scaffold tag is displayed indicating the scaffold is complete and safe (green or yellow) to use.
- Anyone using a swing stage (two motors connecting a platform) scaffolding must use radio communications between the swing stage operator and the person on the ground floor. The swing stage must be inspected by a qualified person before being used.

54 SECURING OF LOADS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to securing of loads. This practice applies to Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instructions to their workers on protection requirements and training.
- Inspect work sites.
- Select equipment.
- Ensure workers are competent.

WORKER

- Inspect all loads prior to travel.
- Follow practice outlined below.

PRACTICES

The daily activities at Priestly Demolition Inc. often involve the transportation of tools, equipment, and materials to the worksite. Driving on the roadway with an unsecured load is a serious safety hazard. Items that fall onto the roadway from an unsecured load can endanger other drivers and contribute to road debris and litter.

The most common ways that road debris contributes to an incident is by causing a driver to lose control of their vehicle or by being launched into the windshield of another vehicle. If debris on the roadway is particularly large, a driver may be forced to break or change lanes suddenly, increasing the risk of an incident.

The best way to prevent vehicle-related road debris incidents is to ensure that your load is safely and properly secured before traveling on any roadway, no matter the distance. The following is information that will aid in the safe transportation of cargo:

- Plan how your load will be arranged in the vehicle. Take a few minutes to plan before you start to load your vehicle.
- Cover sand, gravel, or dirt with a tarp and keep it at least 75 mm below the top of your vehicle’s box or container.
- Place light objects lower in the container instead of at the top of your load.
- Put loose items, such as garbage and yard waste, in a covered container so that it is easier to secure.
- Most tray is 6 meters or 20’ in length, so it is important to load the tray so no more than 3 feet is overhanging your tailgate. If there is more than a 3-foot overhang, you must install a high visibility flag to the protruding end of your load. A tie wrap could be utilized to secure

the high visibility flag. In the absence of a high visibility flag, surveyor ribbon is an acceptable product.

- To secure your load, ensure you utilize straps that are load rated. At a minimum, your ratchet straps should be rated for 500 lbs.
- Check the condition of your straps. They should not be frayed, cut, worn through, or excessively weathered. If they are, replace with new ones.
- If possible, use the tie down anchors that come on all trucks. There will be 2 in the front of the box and 2 in the rear.

55 SERVICING EQUIPMENT UNDER HAZARDOUS CONDITIONS

In many cases, work locations create hazards which must be dealt with on a regular basis by servicemen, mechanics, and operators.

These hazards include, but are not limited to, various weather conditions such as wind, snow, rain, and temperature extremes, dangerous surfaces caused by oil spills, or any other obstacles found as a result of poor housekeeping or ongoing repair work.

It is the responsibility of the serviceman to ensure, prior to climbing onto any piece of equipment, he/she identifies any hazards and removes them prior to continuing with his/her work.

In the case of cold temperatures, gloves must be worn to prevent injury from exposed flesh coming into contact with the metal of the machine.

Snow, rain, or slippery conditions on metal surfaces caused by sudden temperature changes must be observed and proper measures taken to prevent slips and falls. This can be done by scraping the ice or snow off, wearing proper footwear, using provided handholds on the unit, or if necessary, a safety lanyard.

In the case of high winds, a great hazard exists when you are required to climb out onto exposed areas of a unit to carry out servicing responsibilities. If the unit cannot be moved out of the wind for the duration of your work and handholds are not sufficient or present, a belt or lanyard must be used. Your supervisor will provide you with this safety device upon request.

Preventable hazards such as oil spills or poor housekeeping practices must be dealt with immediately upon discovery. Take such measures as necessary to remove the hazards and make a notation of your observation and action on the bottom of your timesheet. If you do not have the necessary equipment to clear the hazard, notify a supervisor of the situation; note the observation on your timesheet and caution any other person who may need to work in the area.

56 SHOCK HAZARD AND ARC FLASH PROTECTION

The purpose of this SWP is to prevent injury due to shock hazard or arc flash.

- All electrical work is to be done by certified & authorized personnel only, as per the Canadian Electrical Code and CSA Standard Z462.
- All switch gear and transformers will be labeled to warn of shock hazard and arc flash and indicate the need for appropriate PPE.
- Whenever possible, equipment must be de-energized to eliminate the risk of shock hazard or arc flash.
- In the event that it is necessary to work on energized equipment, the following guidelines will apply:
- Face shield is not mandatory when working on control panel, PLC cabinet, or control circuits where the voltage is 120v or less, as the arc flash hazard is minimal in those areas. However, shock hazard still exists, so appropriate gloves, eye protection, and insulated tools are still required.

- 50 Volts to 600 Volts (Hazard/Risk Category 2 Protection required).

    - Appropriately rated electrical protective equipment will be worn:
    - Fire retardant coveralls with a minimum arc rating of 8 cal/cm^2.
    - Arc rated face shield or arc flash suit hood.
    - Arc rated jacket, parka, or rainwear (when required).
    - Voltage rated rubber gloves with leather protectors.
    - Hard hat, eye protection, hearing protection, and leather work boots.
    - All live work will be restricted to testing only, with appropriately rated equipment.
    - The MCC must be de-energized prior to insertion or removal of individual starter “bucket” from MCC. If this cannot be done, Hazard/Risk Category 4 protection must be worn.
    - No one is allowed within a boundary of 4 feet without wearing the appropriate electrical protective equipment.

If there is a special circumstance where live electrical work is required, please refer to SWP Electrical Hazards.

- Greater than 600 Volts (Hazard/Risk Category 4 protection required).

    - Appropriately rated electrical protective equipment will be worn:
    - Fire retardant clothing with a minimum arc rating of 40 cal/cm^2.
    - Arc rated flash suit hood.
    - Arc rated jacket, parka, or rainwear (when required).
    - Voltage rated rubber gloves with leather protectors.
    - Hard hat with fire rated liner, eye protection, hearing protection, and leather work boots.
    - Live work shall only be performed by personnel that are certified and authorized to work at the rated voltage level.
    - All live work will be restricted to testing only, with appropriately rated equipment.

- Two people will be required; both wearing appropriately rated electrical protective equipment. *Standby person does not need to be an electrician; however, they need to be trained to know what to do should a problem arise.
- No one is allowed within a boundary of 10 feet without wearing the appropriate electrical protective equipment.

Each site to audit equipment in this category and develop an action plan to address.

Definitions:

Certified Certified by an authority acceptable to the Board; have the required TQ for the trade.

Authorized Have been authorized by the employer to do the work.

57 SHOP SAFETY

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to shop safety. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instructions to their workers on protection requirements and training.
- Inspect work sites.
- Select equipment.
- Ensure workers are competent.

WORKER

- Follow all applicable Safe Work Practices and Procedures.

PRACTICES

The purpose of this practice is to ensure shop safety in varying work conditions. In order to prevent accidents in the shop, workers shall:

- Follow all applicable Safe Work Practices and Procedures.
- Comply with all requirements of the Priestly Demolition Inc. Health and Safety Manual at all times.
- Be familiar with and comply with all applicable OH&S regulations.
- Complete a Field Level Hazard Assessment for task to be performed.
- Dispose of all oily materials, such as rags, in non-flammable containers or covered garbage cans.
- Safely jack and block all vehicles before beginning work or maintenance.
- Use tools and equipment for the purpose they are designed for.
- Maintain good house keeping practices at all times.

58 SIGNS AND BARRICADES

PURPOSE

When working near traffic, worker, co-worker, and public protection is crucial. Proper use of signs and barricades is important to ensure safe conditions are upheld. Please refer to OH&S Act, Regulation and Code Part 12-General Safety Precautions for more information regarding signs and barricades.

PRACTICES

There are many steps to be taken to ensure personal safety and the safety of others near roadways. The “5 W’s” will help to determine worksite signage needs.

- WHO is responsible for the job?
- WHAT traffic accommodation must be provided? (I.e. signs, barricades, etc.)
- WHY the accommodation is required.
- WHEN it will be required.
- WHERE it will be required.

There are three basic types of signs:

1. Regulatory - Such as black and white speed limit signs.

2. Guide - Such as black on yellow detour signs.

3. Warning - Such as a directional sign; diamond shaped with black on yellow paint.

There are three basic types of barricades:

1. Heavy - Used to close streets, provide buffer zones, and mark work area obstructions.

2. Light - Used to mark the work area.

3. A-Frame - May be used to channel traffic and mark the whole work area.

Rules:

- Make sure the signs are covered or removed when not in use.
- Signs used at night must be made of reflective material.

59 TORCH SAFETY

TORCH SAFETY

- Propane is heavier than air, which causes it to accumulate in low areas. Be certain all areas are well ventilated.
- Propane has a distinct odor. If you smell it, immediately discontinue work, extinguish all flames, find the leak, and correct it.
- Be sure you have a fire extinguisher close by. One is required for each torch.
- Use soapy water to check all connections and fittings for leaks. DO NOT use a match or open flame.
- Ignite torch. Check operation of valve and other adjustable parts.
- DO NOT use torches on or near combustible materials.
- Inspect equipment daily.
- Secure cylinders in a level, upright position. DO NOT invert or lay cylinders on their sides.
- DO NOT apply flame to cylinders to increase pressure.
- DO NOT operate torches or any equipment if the odor of LP Gas (butane / propane) is evident. Immediately shut off all valves and, using soapy water, check all equipment for leaks.
- Keep the torches open flame and sources of ignition away from cylinders, regulators, and hose.
- Cylinder valves must be protected. DO NOT hoist cylinder by the valve.
- Gloves should be used at all times. Long sleeves, long pants, and boots are recommended.
- Never leave a lit torch unattended.
- When extinguishing a torch, shut off cylinder valve and allow gas to burn out of lines.
- Be certain to comply with all safety guidelines and local ordinances regarding the use of an open flame.

Propane Torch Use

A flame from a propane torch can reach temperatures of over 1,093˚C. Roofers applying torch on products can receive serious burns from both the torch flame and the hot modified bitumen sheets they are applying.

- When using a torch, workers must wear additional protective clothing (gloves, eye protection).
- Prior to use, ensure that torching equipment is in good working order and the cylinder valves are clean. Check that fittings, hoses, and heads are secure.
- DO NOT use defective equipment.
- Use soapy water to check connections for leaks.
- Only use a spark lighter or electronic starter to light torch.
- Protect the propane hose from damage by:
    - Keeping torch flame away from hose.
    - Keeping hose free of kinks.
    - Not running over hose with equipment.
    - Not using the hose to lift the cylinder.
- A torch flame is difficult to see in daylight; be aware of and keep away from the flame.
- Never leave an operating torch unattended.
- Other than the operator, all workers should stay at least 1 meter away from the torch.
- Set torch units into support leg position when not in use.
- To shut off torch, close cylinder valve first, let gas burn out, close torch valve.
- At the end of the day, disconnect hoses and store properly.

60 USE OF EXPLOSIVE/POWDER ACTUATED FASTENING TOOLS

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to the use of explosive/power actuated fastening tools. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

PRACTICE

There are several tools utilizing an explosive charge in use throughout industry to drive fastenings.

The manufacturers of these devices provide detailed instructions regarding their use and maintenance. These instructions, along with the legislation specifically set out for their use, shall be closely always adhered to.

The following general recommendations apply to all explosive/powder actuated tools.

- Only properly trained and qualified operators are to use this type of tool. The user shall possess proof of training issued by the manufacturer, authorized dealer/distributor, or other competent source.
- The tool must be CSA standard approved for "Explosive Actuated Fastening Tools".
- The tool should be loaded just prior to use with the correct load for the job anticipated. Tools should never be loaded and left to sit or be moved to an alternate work site after being loaded.
- The tool should never be pointed at anyone, whether loaded or unloaded. Hands should be always kept clear of the muzzle end.
- Explosive/powder actuated tools should always be stored in their proper lockable boxes.
- Explosive/powder actuated tools must never be used in an explosive atmosphere.
- When used, the tool must be held firmly and at right angles to the surface being driven into.
- Eye protection must be worn by the operator. Where there is a danger of spalling, full face protection must be worn. Hearing protection must be always worn when using this tool.
- To prevent free-flying studs, ensure that the material being driven into will not allow the stud to completely pass through it (i.e., glass block, hollow tile, etc.).
- Manufacturers' recommendations shall be consulted and followed whenever there is doubt about the material being driven into, maintenance procedures, or load strength to be used.
- Always be aware of the other workers. Where a hazard to other workers is created by this operation, signs and barricades identifying the hazard area are mandatory.

For further information, see the appropriate current Occupational Health and Safety Regulation.

61 VEHICLE USAGE AND MAINTENANCE

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. Safe Work Practice for vehicle usage, maintenance, and operation. This practice applies to all Priestly Demolition Inc. employees and contractors who use company vehicles or personal vehicles for company requirements.

All vehicles being used for Priestly Demolition Inc. business must be used within federal, provincial, or municipal law. In addition, these vehicles must obey any private company rules while on that company's property. Vehicles must be maintained in such a way that they will not be a hazard on the road and shall be reliable and available for service at all times.

RESPONSIBILITIES

SUPERVISOR

- Assign only properly qualified and trained personnel to use and maintain vehicles.
- Perform hazard analyses.
- Perform work site inspections.

WORKER

- Operate vehicles in a safe manner in accordance with provincial and federal legislation.
- Follow this safe work practice.
- Follow all manufacturers' specifications.

PRACTICES

- Employees holding a GDL operator's license will be strictly prohibited from operating a Priestly Demolition Inc. vehicle.
- Employee shall provide a driver's abstract on the date of hire, and it shall be reviewed on a yearly basis. Employees with more than eight (8) demerits on their driver's abstract are strictly prohibited from operating a Priestly Demolition Inc. vehicle.
- The Motor Vehicle Administration Act requires people to have a valid, current, and unrestricted provincial operating license to drive on public land or private land "to which the public is ordinarily entitled or permitted to use".
- The vehicle or equipment operator and all passengers must wear a seat belt when the vehicle or equipment is in use.
- Operate vehicles within rated load capacity and posted speed limits.
- Vehicle operators must bring their vehicle to a full stop at all stop signs. At all other intersections, the vehicle operator must slow down.
- Headlights must be on at all times when vehicle is in use on all site roads, and inside the plant areas.
- The vehicle operator must secure, in the truck box, any cargo likely to become a projectile during sudden stops of the vehicle - even when a headache rack is included as part of the

vehicle design. Also, “in-cab” materials such as fire extinguishers and first aid kits must be securely fastened in place.

- Possession or on the job usage of intoxicating beverages, illegal or unauthorized drugs, or persons under the influence of alcohol, illegal, or unauthorized drugs while driving a company vehicle will be subject to dismissal.

DISTRACTED DRIVING

Distracted driving occurs when a driver’s attention is diverted from the task of driving and becomes focused on an object, activity, event, or person unrelated to driving. For the purpose of this policy, hand-held communication devices refer to all mobile or smart phones, Blackberries, and mobile radios. Hand-held communication devices are strictly prohibited when driving as their use contributes to distracted driving.

The use of hands-free communication devices is permitted only under the following conditions:

- Hands-free unit must be a voice-actuated, single-touch operation;
- Conversations are short in length;
- Conversations are not stressful or emotionally charged;
- Weather conditions are conducive to safe driving; and
- The communication device can be answered without taking eyes off road.

Some clients may require that communication devices be turned off at all times while on their property or in a specific area of their property. Employees must determine ahead of time if such restrictions exist and abide by the client’s policy. If restrictions are in place and there is a need to use a communication device, the employee should park at a safe location, make the phone call, or check for messages, turn the device off, and return to the original location.

Exceptions to the hands-free policy include:

- Calling 911 in the event of an emergency; and
- Using a mobile radio at check-in points on customer service roads.

Employees are strongly encouraged to eliminate all activities that may cause distractions while driving and focus solely on the task of driving. Whenever possible, avoid in-vehicle and external sources of driver distraction, including, but not limited to, the following:

- Dialing or searching for numbers on hand-held communication devices;
- Sending or reading e-mails and/or texting;
- Operating or holding laptops, hand-held music, or portable gaming devices;
- Manually programming or adjusting GPS systems;
- Personal grooming; or
- Eating, drinking, or reaching for objects in the vehicle.

DEFENSIVE DRIVING

Whenever you drive, follow defensive driving rules:

- Walk around the vehicle before driving it to check for obstacles, gas leaks, flat tires, or other defects.
- Be courteous.
- Never pass on hills and curves.
- Before backing up, walk around the vehicle and look behind you to be sure the way is clear.
- Slow down on unfamiliar or bad roads.
- Never drive when you have had alcohol or drugs or when you are fatigued.
- Never rely on a red traffic light to stop a vehicle. Look to make sure vehicles are stopping.
- Aim high in steering by always looking as far ahead as possible and by placing your hands on the steering wheel at the 9 o'clock and 3 o'clock positions.
- Get the big picture, from sidewalk to sidewalk or fence to fence. Pay attention to what other drivers are doing as well as to road and weather conditions.
- Keep your eyes moving (develop a habit of shifting the eyes every two seconds). Know what is happening 360° around your vehicle.
- Leave yourself an out and strive for a space cushion between vehicles by:
    - Maneuvering for better spacing;
    - Picking the lane with the best view;
    - Keeping space open ahead (do not tailgate) and behind you; and
    - Go to the ditch as a last resort to avoid an incident.
- Make sure others see you. Establish eye contact.
- Always carry a valid driver's license for the type of vehicle you are operating and be sure all registration or permit plates and insurance cards are available for inspection.
- Keep vehicles neat and litter-free.
- Keep the defrosting equipment in good working order for winter driving conditions.
- To avoid the dangers of carbon monoxide, see that the cab is well ventilated at all times.

If you have to stop your vehicle on the highway, day, or night, use your emergency warning signals immediately. Place red flags, reflectors, or flares in the centre of your traffic lane both 30m (100 ft.) behind your vehicle and in front of your vehicle.

If carrying a load on the vehicle, see that it is properly distributed and anchored. If the load is high, check clearances of all underpasses. Attach red flags in daytime and red lights at night to any projection 1.3 m (4 ft.) or more beyond the rear tailgate.

TRANSPORTATION OF WORKERS AND MATERIALS

- No employee will stand on bumpers and/or running boards or sit on fenders, tailgates, or in the box of moving vehicles. All employees should use the seats provided within the vehicle, keeping their arms and legs inside the vehicle.
- No flammable substances or tools shall be transported in the passenger compartments of company vehicles.
- Cargo transported by a vehicle shall be contained, immobilized, or secured so that it cannot:
    - Leak, spill, blow off, fall from, fall through, or otherwise be dislodged from the vehicle; or
    - Shift upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely affected.
- Compressed gas cylinders shall, during transportation, refilling, storage, or use, be kept in an upright position and secured against falling.

EMERGENCY SUPPLIES

When necessary, carry these additional emergency supplies:

- Additional blankets;
- Source of heat (candles, matches);
- Non-perishable food (candy, nuts);
- Shovel;
- Sand;
- Salt; and
- Warning flares.

VEHICLE INCIDENTS AND BREAKDOWNS

All incidents involving company vehicles or equipment must be reported as soon as practical. What to do after a vehicle incident:

- Apply first aid to the injured and call an ambulance, if necessary.
- Report the incident to the nearest police office if the combined damage is $1,000, or if there are injured parties involved.
- Obtain all particulars from the other party involved such as name, address, phone, driver's license number, insurance company's name, address and phone number, policy number, and description of vehicle.
- Report incident to supervisor.
- Complete an incident report in full of a signed statement and accompanying diagram.
- Make no admission of liability or offer any statement of claims.
- Do not enter into any argument or dispute with the operator or other vehicles, pedestrians, or bystanders.

DISCIPLINARY ACTION

- All company employees having been involved in a preventable vehicle incident causing injury and/or vehicle or property damage will be required to attend a driving course as determined by management and the Health and Safety Department.
- Any employee having a second preventable incident or incident within a two-year period will be required to attend another driving course together with their manager.
- An employee having a third violation similar to the first two could have additional disciplinary action taken against them, up to and including dismissal.

INSPECTIONS

Drivers of Priestly Demolition Inc. vehicles shall inspect the operating condition of the vehicle prior to using the vehicle. This includes tires, lights, horn, wipers, windshield, mirrors, brakes, gasoline, oil levels, and coolant levels. A monthly check must be completed using the Monthly Vehicle Inspection form. Any deficiencies shall be noted on the form and indication as to when the deficiency will be rectified and who is responsible for the rectification needs to be indicated on the form.

All company owned, leased vehicles or sub-contract employee vehicles shall carry the following:

- # 2 First Aid Kit
- Roadside Emergency Kit
- Fire Extinguisher (10 lb. ABC dry chemical)
- Tow Rope

SECURITY

The driver of the vehicle shall ensure that all equipment is secured and or hidden from view. The operator is responsible to secure the equipment properly or remove the equipment from sight of a passer-by and will be responsible for the replacement of the equipment if the equipment is stolen. Personal equipment or items are the responsibility of the operator.

VEHICLE MAINTENANCE

- It is the policy of Priestly Demolition Inc. that all vehicles shall be properly maintained and serviced to reduce the risk of injuries to employees and the public or damage to company vehicles.
- Supervisors shall ensure that all preventive maintenance is carried out by qualified personnel according to the manufacturer’s established schedules and that records are maintained.
- All employees shall regularly check, maintain, and keep records on company vehicles that they are operating and report any repairs to their supervisor and ensure requirements for the National Safety Code are adhered to.
- The safety information in this policy does not take precedence over OH&S Regulations.

- Drivers are responsible for the care, maintenance, and servicing of their company vehicles.
- Follow the vehicle maintenance schedule for your operating area.
- Prompt attention is mandatory to any indications of safety defect or faulty operation to minimize repair costs and maintain the vehicle in a safe operating condition at all times. Noted defects shall be documented and reported to Management.
- Authorized franchised dealers are to be used whenever possible, to help eliminate unnecessary expense and assist in preserving the appearance and condition of the unit.

62 WELDING

PURPOSE

Welders can create several hazards for the operator as well as other people in the area. Please refer to OH&S Act, Regulation and Code Part 10-Fire and Explosion Hazards for more information regarding welding.

PRACTICES

Listed below are some of the hazards associated with welding and the appropriate precautions to take.

Electric Shock

- Do not touch live electrical parts.
- Wear dry, hole-free, insulated gloves and body protection.
- Disconnect input power before servicing.
- Frequently inspect the power cord for damage or bared wiring.
- Do not drape cables over the body.
- If earth grounding of the work piece is required, ground it directly with a separate cable. Do not use work clamp or work cable.
- Do not touch the electrode if you are in contact with the work.
- Clamp work cable with a good metal-to-metal contact to the work piece or worktable as near the weld as practical.

Arc Rays

- Arc rays from the welding process can produce intense visible and invisible (ultraviolet and infrared) rays that can burn the eyes and skin.
- Wear a welding helmet fitted with a proper shade of filter to protect the face and eyes when welding or watching.
- Use protective screens or barriers to protect others from flashes or glare.
- Warn others not to watch the arc.
- Wear protective clothing made from durable, flame-resistant material.

Noise

- Noise from some processes can damage hearing. Use approved ear plugs or earmuffs if the noise level is high.
- Warn others that are in the area or that may enter the area.

Slag or Sparks

- Be aware of chipping, grinding and welds cooling throwing off pieces of metal or slag.
- Wear approved safety glasses with side shields.
- Do not weld where fling sparks can strike flammable materials.

- Always keep a fire extinguisher nearby.
- Remove stick electrode from holder when not in use so as not to cause an unnecessary spark.
- Wear oil free protective garments.
- Remove any combustibles, such as butane lighters and matches from the person before welding.

Fumes and Gases

- Keep head out of the fumes. Do not breathe in the fumes.
- Ensure the area is well ventilated.
- If ventilation is poor, use an approved air-supplied respirator.
- Do not weld in locations near degreasing, cleaning, or spraying operations. The heat and rays of the arc can react with vapors to form highly toxic and irritating gases.
- Do not weld on coated metals such as galvanized, lead or cadmium plated steel, unless the coating is removed from the weld area and the area is well ventilated. If necessary, wear an air-supplied respirator.

Welding and cutting operations can be potential health and fire hazards. To minimize the potential hazard, follow the procedure list below.

- Worker must be trained in use of welder, cutter, or burning equipment.
- Always ensure that adequate ventilation is supplied since hazardous fumes can be created during welding, cutting, and burning.
- Before heating, cutting, or welding, remove or screen all fire hazards. Screens should be used, whenever possible, to keep grinding, gouging, or cutting sparks out of other shop areas, especially when working above other workers.
- Never start work without proper authorization.
- Check the work area for combustible material and possible flammable vapors. Welder should never work alone.
- Wear proper clothing - leather gauntlet type gloves, proper eye and face protection, and proper safety footwear. When necessary, respiratory protection equipment such as half mask respiratory devices must be worn to reduce the hazard from airborne contaminants.
- Comply with manufacturer’s specifications when using any welding or cutting device.
- Do not cut or weld any enclosed vessel such as a tank, steel drum, or steel pipe until it has been ventilated and approved for work by the Safety Department. Never weld or cut lines, drums, tanks, etc. that have been in service without making sure that all have been purged or other necessary precautions are in place.
- Make sure there is an appropriate type of fire extinguisher available at all times.
- Ensure there is good general ventilation to prevent the buildup of welding fumes or gasses. Use local (point of operation) ventilation to remove the contaminants, if applicable.
- Never enter, weld, or cut in a confined space without proper air quality testing and a qualified safety lookout in place.
- All air-arc (gouging) operations should be done outside, when possible. Air-arc (gouging) in the shop should be kept to an intermittent or short-term basis. Whenever possible,

welders, and others in the work area must wear respiratory and hearing protection when air-arcing.

- All welding equipment should be on a routine maintenance schedule to ensure welding units, etc. are kept in safe and efficient operating conditions.
- When operating an electric welding machine, you must not leave the machine unattended without removing the electrode.

Welding and Cutting

Gas welding and cutting operations include systems which use compressed gas in a number of applications.

- Store and chain cylinders in an upright position. Keep gas cylinders away from the actual welding or cutting operations so that hot slag, sparks, flame, or electricity does not reach them.
- Keep all oil and grease away from oxygen cylinders at all times. This includes keeping hands clean of oil and grease when changing or repairing any oxygen cylinder fittings.
- Fuel gas hose and oxygen hose must be easily distinguishable from each other. Inspect the hoses before use. Replace any that are not in good condition. Use the correct clamps and fittings on hoses.
- Inspect torches regularly for leaking shut off valves, hose couplings, and tip connections. Ensure all pressure regulators and gauges are in proper working order.
- Flash back valves must be installed in all hoses between the regulator and torch. In most cases, flash back valves are installed next to the regulator.
- Use friction lighters to ignite the torch. Never use matches or hot work.

Arc Welding

Follow the following steps for arc welding:

- Use proper filter lenses for arc welding operations to protect eyes from damage.
- Use only electrode holders specifically designed for arc welding and cutting. Do not place electrodes against a gas cylinder to strike an arc.
- Check all cables, insulated connectors, and ground connections to ensure they are capable of handling the current. Insulation on all cables must be in good condition. Any breaks in the insulation must be properly repaired.
- Make sure hoisting equipment does not become part of an electrical circuit. Remove overhead crane connections from the work to eliminate grounding through the crane. The rated lifting capacity of hoisting equipment becomes void when this occurs.

Portable Welding

Portable welding and cutting operations include systems which use compressed gas in a number of applications.

- Ensure the vehicle is in good working order and is equipped with positive air shut off and a No. 2 fire extinguisher.

- Store and chain cylinders in an upright position. Keep gas cylinders away from the actual welding or cutting operations so that hot slag, sparks, flame, or electricity does not reach them.
- Storage compartments for compressed gas cylinders must meet legislative requirements. An employer must ensure that welding services provided from vehicles comply with CSA Standard W117.2-01.
- Keep all oil and grease away from oxygen cylinders at all times. This includes keeping hands clean of oil and grease when changing or repairing any oxygen cylinder fittings.
- Fuel gas hose and oxygen hose must be easily distinguishable from each other. Inspect the hoses before use. Replace any that are not in good condition. Use the correct clamps and fittings on hoses.
- Inspect torches regularly for leaking shut off valves, hose couplings, and tip connections. Ensure all pressure regulators and gauges are in proper working order.
- Flash back valves must be installed in all hoses between the regulator and torch. In most cases, flash back valves are installed next to the regulator.

Portable Arc Welders

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 transport unit.
- Check all fluid levels, water, oil, and gas to be sure they are at acceptable levels for operation.
- When fueling, DO NOT top off gas tank. Gasoline expands as the outside temperature rises, this may result in seepage and ensuing fire.
- Do not fuel machine while running.
- Be sure radiator and gas caps are in proper working order and securely attached.
- Perform a “walk around” inspection before starting equipment.
- Any repairs should be done by qualified mechanics or technicians.
- Make sure all cables are wound securely when transporting.

Ensure the side covers are kept closed to protect the machine from damage from external objects and outside weather, as well as to protect the operator and others from the moving parts of the machine.

63 WORK NEAR OVERHEAD POWER LINES

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to work done in the area around overhead power lines. This practice applies Priestly Demolition Inc. Services employees and contractors.

RESPONSIBILITIES

SUPERVISOR

- Provide proper instruction and training to workers on the proper processes for working safely near or under power lines.
- Physically inspect the area before permitting any work.
- Perform hazard analyses.
- Monitor the workers (including subcontractors) and their use of equipment during any operation near or under power lines. Ensure that all workers use safe work practices and that unsafe use of the equipment as well as unsafe practices are identified and corrected.
- Ensure all trades on site know the work being carried out and where the danger zone is.
- The supervisor has a special responsibility to review the situation and to take action if the work is not being done safety and without risk.
- All overhead power lines shall be given a minimum clearance distance of 7 m.

WORKER

- Complete Field Level Hazard Assessment and include the location of overhead power lines.
- Follow all Safe Work Practices and Safe Job Procedures in the Priestly Demolition Inc. HSE manual.
- Maintain minimum safe distances and clearances at all times.
- Adhere to all site-specific requirements.

PRACTICES

- All effort will be made to have power shut down and locked out before work commences.
- Worker shall follow all safety practices and procedures laid out in the Priestly Demolition Inc. HSE Manual.
- Worker shall not approach beyond the safe work limits.
- Equipment, if required, and users must respect the safe limit of approach distances specified in Part 17 “Safe limit of approach” (225) of the Alberta OHS Code.
- A competent signaller as described in section 191 of the OHS Code should be used. The signaller’s only responsibility is to make sure that the equipment operator does not get closer than the safe limit of approach distance.
- No one should be allowed to touch the load or any part of the equipment until the signaller indicates it is safe to do so.

- Other workers not directly involved in the work being performed should be kept away from equipment when it is being used near overhead power lines.
- Equipment operators must always be aware of the position of their equipment in relation to overhead power lines. They should not depend on safety devices such as hook insulators, insulating blankets, etc.
- Equipment operators should be aware that a long span of power line can rise and fall as the ambient temperature changes, affecting safe limit of approach.
- Wind-induced swing can also affect these distances.
- Grounding equipment in the area of the power line is not a safe practice.
- The route that a crane or similar equipment will follow should be marked out.
- When using tag lines to control an elevated load, the tag lines should be made of a non-conducting material such as dry rope.
- Regulations under the Safety Codes Act require all electrical accidents and power line contacts to be reported to Alberta Municipal Affairs, Safety Services.

Safe limit of approach distances from overhead power lines for persons and equipment

(Reference is made to the Alberta OHS Code for best practices. Appears as Schedule 4 in the Alberta OHS Code).

Operating voltage between conductors of overhead power line	**Safe limit of approach distance for persons and equipment**
0-750 volts Insulated or polyethylene covered conductors (1)	300 millimeters
0-750 volts Bare, uninsulated	1.0 meter
Above 750 volts Insulated conductors (1) (2)	1.0 meter
750 volts-40 kilovolts	3.0 meters
69 kilovolts, 72 kilovolts	3.5 meters
138 kilovolts, 144 kilovolts	4.0 meters
230 kilovolts, 260 kilovolts	5.0 meters
500 kilovolts	7.0 meters

64 WORKING SAFELY IN THE HEAT AND COLD

PURPOSE

The purpose of this document is to define Priestly Demolition Inc. practice related to inclement weather. This practice applies to all Priestly Demolition Inc. employees, contractors, and clients.

When you work in extreme temperatures, your body has to adapt. To maintain a constant inner body temperature, the body must continually keep or gain heat in cold environments and lose heat in hot environments.

To stay warm in cold environments, the body:

- Shivers – moving muscles help increase heat production; and
- Reduces blood flow to the skin and extremities (hands and feet) to reduce heat loss from the surface.

To stay cool in hot environments, the body:

- Sweats – evaporating sweat cools the body; and
- Increases blood flow to the skin – to speed up the loss of heat from the skin (radiate away the excess heat) if the outside air is cooler.

By sweating, shivering, and changing the rate of blood flow, the body can adapt to a fairly wide range of temperatures. However, there are limits to what the body can adapt to and its ability to maintain its core temperature can fail.

Thermal comfort refers to whether a person feels comfortable - not too hot nor too cold. Achieving thermal comfort is challenging because you need to account for the six factors (air temperature, radiant heat, relative humidity, moving air, physical exertion, and clothing).

RESPONSIBILITIES

Supervisors

HEAT

- Schedule information sessions for workers whose workplaces them at risk of heat stress.
- On days where environmental conditions have reached designated threshold levels:
  - Implement safe work procedures established to prevent heat-induced illness;
  - Determine any additional rest breaks that may be required as a result of workload and local conditions;
  - Advise workers to:
    - Drink enough fluids to replace those lost through sweating and breathing;
    - Take breaks in the shade or a cool area, as needed to avoid heat exhaustion or collapse;
    - Report to their supervisor, heat stress-related symptoms in themselves or their co-workers; and

- Adhere to the recommended rest break schedule, established to avoid heat exhaustion or collapse.

COLD

- Be familiar with all jobs under their supervision which have been identified as having potential risk of cold stress and their associated safe work procedures.
- Ensure training/information sessions are provided to workers whose workplaces them at risk of cold stress.
- Monitor environmental conditions (i.e., temperature and wind velocity and/or wind chill), as appropriate, on cold days and on days where brisk wind and cold air temperature combine to reach levels considered hazardous.
- Implement safe work procedures established to prevent cold-stress related injuries
- Advise workers to:
  - Wear multiple layers of light, loose fitting clothing;
  - Pay special attention to protecting feet, hands, face, and head;
  - Report to their supervisor cold stress-related symptoms in themselves or their co-workers; and
  - Adhere to the recommended work-warm-up schedule, established to prevent frostbite or hypothermia.
- Reinforce personal protection strategies to workers verbally, on a continual basis.

Workers

HEAT

- Be familiar with heat stress hazards, predisposing factors, and preventative measures.
- Follow safe work practices established to prevent heat related illness.
- Drink enough fluids to replace those lost through sweating and breathing.
- Report to their supervisor heat stress-related symptoms in themselves or their co-workers.
- Follow recommended schedule of rest breaks, as advised by supervisors, to avoid heat exhaustion or collapse.

COLD

- Be familiar with cold stress hazards, predisposing factors, and preventative measures.
- Follow safe work procedures established to prevent cold-stress related injuries.
- Report to their supervisor cold stress-related symptoms in themselves or their co-workers.
- Follow recommended schedule of rest breaks, as advised by supervisors, to prevent frostbite or hypothermia.
- Understand and be able to recognize frostbite and hypothermia.

PRACTICES

COLD WEATHER

Frostnip is the mildest form of a freezing cold injury. It occurs when ear lobes, noses, cheeks, fingers, or toes are exposed to the cold and the top layers of the skin freeze. The skin of the affected area turns white, and it may feel numb. The top layer of skin feels hard, but the deeper tissue still feels normal (soft). The top layer of skin sometimes peels off the affected area.

Frostbite is caused by exposure to extreme cold or by contact with extremely cold objects (e.g., metal). It may also occur at normal temperatures from contact with cooled or compressed gases. Frostbite occurs when tissue temperature falls below freezing (0°C), or when blood flow is obstructed under cold conditions. Blood vessels may be severely and permanently damaged, and blood circulation may stop in the affected tissue.

In mild cases, the symptoms include inflammation (redness and swelling) of the skin in patches accompanied by slight pain. In severe cases, tissue damage without pain, or burning or prickling sensations and blistering can happen. Frostbitten skin is highly susceptible to infection, and gangrene (local death of soft tissues due to loss of blood supply) may develop.

Wind Chill

The best way to avoid the hazards of wind chill is to check the weather forecast and be prepared by dressing appropriately and staying dry. Take frequent warm up breaks and watch for signs of numbness as an early warning sign of frost bite. Use the buddy system to watch for signs of frostbite.

Environment Canada suggests the following for wind-chill benchmarks:

-27ºC Risk of frostbite in prolonged exposures
-35 ºC Frostbite possible in 10-15 minutes
-40 ºC Wind chill warning will be issued. Frostbite possible in less than 10 mins.
-45 ºC Be ready to cut short or cancel outdoor activities. Frostbite possible in minutes.
-60 ºC DANGER! Frostbite possible in ***under*** 2 minutes.

First Aid for Cold Exposures

- Prevent frostnip by covering exposed skin surfaces. Cover the cheeks, chin, nose, ear lobes, and forehead.
- Treat frostnip or frostbite by gentle rewarming (e.g., holding the affected tissue next to unaffected skin of the victim or of another person). For cold-induced injuries, never rub the affected parts - ice crystals in the tissue could cause damage if the skin is rubbed. Do not use hot objects such as hot water bottles or electric blankets to rewarm the area or person.

Hypothermia occurs when the body is unable to compensate for its heat loss and the body's core temperature starts to fall. You first feel cold followed by pain in exposed parts of the body. As the body's core temperature continues to drop, the feeling of cold and pain starts to diminish because of increasing numbness (loss of sensation). If no pain can be felt, serious injury can occur without the victim noticing it.

As the body continues to cool, muscular weakness, an inability to think clearly, and drowsiness are experienced. This condition usually occurs when the body's internal or core temperature falls

below 33°C. Additional symptoms include shivering coming to a stop, diminished consciousness, and dilated pupils.

SIGNS AND SYMPTOMS

Mild

Symptoms of mild hypothermia may be vague with sympathetic nervous system excitation (shivering, high blood pressure, fast heart rate, fast respiratory rate, and contraction of blood vessels). These are all physiological responses to preserve heat.

Moderate

Low body temperature results in shivering becoming more violent. Muscle discoordination becomes apparent. Movements are slow and labored, accompanied by a stumbling pace and mild confusion, although the person may appear alert. Surface blood vessels contract further as the body focuses its remaining resources on keeping the vital organs warm. The subject becomes pale. Lips, ears, fingers, and toes may become blue.

Severe

As the temperature decreases, further physiological systems falter and heart rate, respiratory rate, and blood pressure all decrease. This results in an expected heart rate in the 30s at a temperature of 28 °C (82 °F). Difficulty speaking, sluggish thinking, and amnesia start to appear; inability to use hands and stumbling are also usually present. The exposed skin becomes blue and puffy, muscle coordination very poor, and walking almost impossible. The person exhibits incoherent/irrational behavior, pulse and respiration rates decrease significantly, but the heart rate is fast.

First aid for hypothermia includes the following steps:

- Get medical help immediately. Hypothermia is a medical emergency.
- Remove any wet clothing.
- Place the victim between blankets (or towels, newspapers, etc.) so the body temperature can rise gradually. Be sure to cover the person’s head. If medical help is not available immediately, body-to-body contact can help rewarm the victim slowly. Do not use hot water bottles or electric blankets, as these can heat the victim too quickly.
- Give warm, sweet (caffeine-free, non-alcoholic) drinks unless the victim is rapidly losing consciousness, is unconscious, or is convulsing.
- Quickly transport the victim to an emergency medical facility.
- Perform CPR (cardiopulmonary resuscitation) if the victim stops breathing. Continue to provide CPR until medical aid is available. The body slows when it is very cold and, in some cases, hypothermia victims that appeared “dead” have been successfully resuscitated.

HOT WEATHER

Heat stress is the overall heat load on the body, including environmental heat and inner body heat production due to working hard. Mild or moderate heat stress may be uncomfortable and may affect performance and safety, but it is not usually harmful to your health. When heat stress is more extreme, the possible health effects include:

Heat rashes are tiny red spots on the skin, which cause a prickling sensation. The spots are the result of inflammation caused when sweat glands become plugged.

Heat cramps are sharp pains in the muscles that may occur alone or be combined with one of the other heat stress disorders. The cause is salt imbalance resulting from the failure to replace salt lost with sweat. Cramps most often occur when people drink large amounts of water without sufficient salt (electrolyte) replacement.

Heat exhaustion is caused by excessive loss of water and salt. Symptoms include heavy sweating, weakness, dizziness, nausea, headache, diarrhea, muscle cramps, and more.

Heat stroke and hyperpyrexia (elevated body temperature) are the most serious types of heat illnesses. Signs of heat stroke include body temperature often greater than 41°C, and complete or partial loss of consciousness. The signs of heat hyperpyrexia are similar except that the skin remains moist. Sweating is not a good symptom of heat stress as there are two types of heat stroke – “classical” where there is little or no sweating (usually occurs in children, persons who are chronically ill, and the elderly), and “exertional” where body temperature rises because of strenuous exercise or work, and sweating is usually present.

Being aware of the signs of heat stress is the first step for prevention. Heat stroke occurs more easily when the body has suffered a previous heat disorder.

Heat stroke and hyperpyrexia require **immediate** first aid and medical attention. Delayed treatment may result in damage to the brain, kidneys, and heart.

A heat stroke victim is usually unable to recognize the heat stroke signs and symptoms. His or her survival depends on a co-worker’s ability to recognize the symptoms and seek immediate medical help.

If one person is showing signs of heat stress, take it as a sign that other workers may also be affected. Workers should report to a cool area and be assessed individually before work continues.

First Aid for Heat Exposure

- Get medical help or bring the person to a medical facility.
- Move the person to a cooler area where they can rest (such as an air-conditioned building or vehicle, or into the shade).
- Take off excess clothing (hard hat, boots, shirt, coveralls, etc.).
- Give the person water to drink (only if they are able to drink it on their own).
- Cool the person with cold compresses and rapid fanning.

For *heat cramps/heat exhaustion*, take the person to a cooler place and have them rest in a comfortable position. Give a half glass of cool water every 15 minutes. Do not let the person drink

too quickly. Do not give liquids with alcohol or caffeine as these ingredients can make conditions worse. Remove or loosen tight clothing and apply cool, wet cloths such as towels or wet sheets.

Controlling Exposure

If a hazard assessment suggests that measures should be taken to reduce the potential for harm to workers, the employer is required to follow the hazard control hierarchy as outlined in Alberta's Occupational Health and Safety Code:

1. Explore ways to **eliminate** the hazard;
2. Reduce exposure by applying **engineering controls** such as methods of designing or modifying plants, equipment, ventilation systems, and processes to reduce exposure;
3. Apply **administrative controls** such as work practices, standards and operating procedures including training, timing of work, policies, and other rules to reduce exposure; and
4. Use **personal protective equipment,** if necessary, as a last resort.
5. Use a combination of engineering controls, administrative controls, or personal protective personal equipment if there is a greater level of worker safety because a combination is used.

The best way to control a hazard is to eliminate it. Naturally, this step is practically impossible when the hazard is an outdoor environmental condition.

The measures for control, therefore, should focus on engineering and administrative controls, and if necessary, personal protective equipment.