Bristal Hauling Inc. recognizes that providing a safe, health and environmentally responsible workplace means that all workers will follow good safe work practices.

Management is responsible to ensure what safe work practices are written and available to all employees. Bristal Hauling Inc. fully endorses and will enforce the use of all its written safe work practices.

Supervisors are responsible for overseeing the use of proper practices. All employees are to follow these procedures. Employees are also report any deficiencies found to their supervisor for corrections or if there are any safe work practices that they feel need to be developed.

Safe work practices are a positive set of guidelines, general “do’s & don’ts” on how to perform specific tasks. Safe work practices will change from time to time because of new methods and products, so they will be reviewed annually. Safe work practices will be readily available to all our workers on every job site.

**Bristal Hauling Inc. Safe Work Practices:**

1. Arc Welding;
2. Battery Operated Tool Safety/Cordless Power Drill;
3. Cell Phone Usage;
4. Compressed Air;
5. Electrical Cord Use;
6. Electricity and Electrical Equipment Use;
7. Fire and Use of Fire Extinguishers;
8. General Forklift Operation;
9. General Power Tool Safety and Defective Tools;
10. General Use of Cleaning Solvents and Flammables;
11. Grinding and Portable Grinders;
12. Hoisting and Lifting;
13. Ladders – Step Ladders;
14. Lifting and Carrying;
15. PME – General use of Powered Mobile Equipment;
16. PME – Operation of Excavators;
17. PME – Operation of Highway Trucks;
18. PME – Operation of Loaders
19. Power Saw Operation;
20. Preventing Slips, Trips & Falls;
21. Propane Safety;
22. Safe Chemical Handling Rules;
23. Safe Driving – General;
24. Safe Driving – Reversing and Backing up Vehicles;
25. Saws – Reciprocating;
26. Saws – Chain saw;
27. Saws – Quick Cut;
28. Snow Shoveling;
29. Tiger Torch Operation;
30. Towing a stuck truck.
31. Trucks and General Truck Operations;
32. Welding, Cutting, Burning;

**Policy Implemented: June 1, 2016**





**Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Review Date: June 1, 2016**

**Willy Toews – Company Owner**



**Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Review Date: June 1, 2016**

**Emanuel Toews – Safety Officer**

**Arc Welding**

Personal Protective Equipment (PPE) Required:

Gloves Eye Protection

Welding Mask Hearing Protection

Protective Clothing

1. PRE-Operation:

* Ensure task (e.g. Drawings, instructions, specifications etc.) is clearly understood.
* Ensure the work area is clean and clear of grease, oil and any other flammable materials.
* Keep the welding equipment, work area and gloves dry to avoid electric shocks.
* Stand on rubber insulating matting during operation (where supplied).
* Ensure the gloves, welding gun and work leads are in good condition (i.e. no exposed wiring).
* Check that other work areas are protected from flash (e.g. welding curtains).
* Ensure appropriate ventilation is in place prior to use as welding of aluminum, zinc etc. will release harmful fumes.
* Ensure appropriate PPE is worn.
* Identify ON/OFF switch and emergency stop button (if applicable).

2. Operation:

* Keep hands clear of work piece and away from electrode and ensure operator does not wrap electrode leads around themselves.
* Ensure power is turned off (from wall socket) before inserting or removing electrodes from electrode holder/handle.
* Ensure current is correctly set according to electrode selection.
* Never leave the welder running unattended.

3. POST-Operation:

* Ensure sufficient time for materials to cool before handling.
* Switch off machine and fume extraction (if relevant).
* Hang up electrode holder and welding cables.
* Practice good housekeeping and ensure the area is clean and tidy.

**Battery Operated Tool Safety**

**– READ AND UNDERSTAND ALL INSTRUCTIONS AND MANUFACTURER’S MANUAL BEFORE USING THIS EQUPIMENT**

* Ensure the switch is in the off position before inserting battery pack.
* Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
* Use power tools only with specifically designated battery packs.
* When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.
* Under abusive conditions, liquid may be ejected from the battery, avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.

**Cordless Power Drill**

* Ensure the bit is straight and is inserted correctly into the jaws of the drill. If there is any wobble in the bit, it either isn’t straight or isn’t installed correctly.
* Be sure to apply the correct amount of pressure for the material being drilled. Too much pressure can overheat the drill and cause it to bind. Incorrect pressure may also cause the bit to break, which may send material flying.
* Bits may become hot while drilling. Be careful when handling bits after drilling as they may cause burns.
* Be sure the remove the key from the chuck before operating drill.
* Always use a brush to clear drillings from work area. Never use your hand.
* Secure work with clamps or a vice; leave both hands free to operate the tool.
* Maintain tools with care. Keep bits sharp and clean for best performance.

**Cell Phone Usage**

Protecting workers and others from injuries associated with the IMPROPER use of cell phones while operating a motor vehicle is the responsibility of all employees of Bristal Hauling Inc. Using a cell phone improperly while operating a motor vehicle may be hazardous to the worker and general public.

Cellular phones can create a dangerous distraction on the road, or they can be a life-saver in an emergency. It’s all a matter of how you use them.

Employees are prohibited from using any unapproved electronic device while operating any moving vehicle. An employee is responsible for all fines that may be levied against them by any law enforcement agency while working for Bristal Hauling Inc..

**Do:**

* Let voice mail do your work. The safest choice is to turn your cellular phone off while driving. Let your calls go to voice mail and respond when you’re finished driving.
* Let your passenger handle the call. If you’re expecting an important call and you’re driving with somebody else, let your passenger answer the phone, or switch places and let the other person drive.
* Pull over, if you must answer the phone. Pull over to a safe place and stop before taking the call. Place your cellular phone where you can easily reach it.
* Hands-free is not risk-free. The speaker phone feature and headsets allow you to keep both hands on the steering wheel, but they are not necessarily safe. Your conversation may still take your driving concentration away from the road.

**Do Not:**

* Never dial and drive. Never take your eyes off the road to dial a number. Pull over to a safe place to make the call. Continue driving only after you have completed your call. Program frequently called numbers into your phone’s speed dial so you can make a call easily when you pull over.
* Never use text messaging, or read or send e-mail while driving. Pull over to a safe place to write or read your message. Continue driving only after you have completed your reading and typing.

**Compressed Air**

* Compressed air must not be used to blow debris or clear dirt form any worker’s clothes;
* Ensure that the air pressure has been turned off and line pressure is relieved before disconnecting the hose or changing tools;
* All hose connectors must be of the quick disconnect pressure release type with a safety chain/cable;
* Wear all personal protective equipment such as safety eye protection, face shields and ensure other workers in the area are made aware of hazards, or ensure the area has restricted access;
* Hoses must be checked prior to each use for cuts, bulges, or other damage. Ensure defective hoses are repaired or replace;
* The proper regulator and relief device must be in the system to ensure that correct and desired pressures are maintained;
* Correct and proper air supply hoses must be used for the tool/equipment being used;
* Maintain equipment according to manufacturer’s requirements;
* Follow all manufacture’s instructions and comply with all legislated safety requirements.

**Electrical Cord Use**

Tips for working with power cords:

* Inspect power cords and electrical fittings for damage or wear prior to each use. Repair or replace damaged equipment immediately.
* Always tape cords to walls or floors when necessary. Nails and staples can damage cords causing fire and shock hazards.
* Use cords that are rated for the level of amperage or wattage that you are using.
* Keep power cords clear of tools during use.
* Suspend power cords over aisles or work areas to eliminate stumbling or tripping hazards.
* Replace open front plugs with dead front plugs. Dead front plugs are sealed and present less danger of shock or short circuit.
* Do not use outlets or cords that have exposed wiring.
* Do not use light duty power cords.
* Do not carry electrical tools by the power cord.
* Do not tie power cords in tight knots. Knots can cause short circuits and shocks. Loop the cords or use a twist lock plug.

**Electricity and Electrical Equipment Use**

The electrical current in regular businesses and homes has enough power to cause death by electrocution. Even changing a light bulb without unplugging the lamp can be hazardous because coming in contact with the "hot" or live part of the socket could kill a person.

Tips for working with or near electricity:

* Inspect tools and electrical fittings for damage or wear prior to each use. Repair or replace damaged equipment immediately.
* Always use the correct size fuse. Replacing a fuse with one of a larger size can cause excessive currents in the wiring and possibly start a fire.
* Be aware that unusually warm or hot outlets may be a sign that unsafe wiring conditions exists. Unplug any cords to these outlets and do not use until a qualified electrician has checked the wiring.
* Always use ladders made of wood or other non-conductive materials when working with or near electricity or power lines.
* Place halogen lights away from combustible materials such as cloths or curtains. Halogen lamps can become very hot and may be a fire hazard.
* Risk of electric shock is greater in areas that are wet or damp. Install Ground Fault Circuit Interrupters (GFCIs) as they will interrupt the electrical circuit before a current sufficient to cause death or serious injury occurs.
* Make sure that exposed receptacle boxes are made of non-conductive materials.
* Know where the breakers and boxes are located in case of an emergency.
* Label all circuit breakers and fuse boxes clearly. Each switch should be positively identified as to which outlet or appliance it is for.
* Do not use power tools with the guards removed.
* Do not block access to circuit breakers or fuse boxes.
* Do not touch a person or electrical apparatus in the event of an electrical accident. Always disconnect the current first.

Tips for working with power tools:

* Switch tools OFF before connecting them to a power supply.
* Disconnect power supply before making adjustments.
* Ensure tools are properly grounded or double-insulated. The grounded tool must have an approved 3-wire cord with a 3-prong plug. This plug should be plugged in a properly grounded 3-pole outlet.
* Test all tools for effective grounding with a continuity tester or a ground fault circuit interrupter (GFCI) before use.
* Do not bypass the switch and operate the tools by connecting and disconnecting the power cord.
* Do not use electrical tools in wet conditions or damp locations unless tool is connected to a GFCI.
* Do not clean tools with flammable or toxic solvents.
* Do not operate tools in an area containing explosive vapours or gases.

**Fire and Use of Fire Extinguishers**

All fires can be very dangerous and life-threatening. Your safety should always be your primary concern when attempting to fight a fire.

Before deciding to fight a fire, be certain that:

* The fire is small and not spreading. A fire can double in size within two or three minutes.
* You have the proper fire extinguisher for what is burning.
* The fire won't block your exit if you can't control it. A good way to ensure this is to keep the exit at your back.
* You know your fire extinguisher works. Inspect extinguishers once a month for dents, leaks or other signs of damage. Assure the pressure is at the recommended level. On extinguishers equipped with a gauge, the needle should be in the green zone - not too high and not too low.
* You know how to use your fire extinguisher. There's not enough time to read instructions when a fire occurs.

How to Fight a Fire Safely:

* Always stand with an exit at your back.
* Stand several feet away from the fire, moving closer once the fire starts to diminish.
* Use a sweeping motion and aim at the base of the fire.
* If possible, use a "buddy system" to have someone back you up or call for help if something goes wrong.
* Be sure to watch the area for awhile to ensure it doesn't re-ignite.

Never Fight A Fire If:

* The fire is spreading rapidly. Only use a fire extinguisher when the fire is in its early stages. If the fire is already spreading quickly, evacuate and call the fire department.
* You don't know what is burning. Unless you know what is burning, you won't know what type of fire extinguisher to use. Even if you have an ABC extinguisher, there could be something that will explode or produce highly toxic smoke.
* You don't have the proper fire extinguisher. The wrong type of extinguisher can be dangerous or life-threatening.
* There is too much smoke or you are at risk of inhaling smoke. Seven out of ten fire-related deaths occur from breathing poisonous gases produced by the fire.
* Any sort of fire will produce some amount of carbon monoxide, the most deadly gas produced by a fire. Materials such as wool, silk, nylon and some plastics can produce other highly toxic gases such as carbon dioxide, hydrogen cyanide, or hydrogen chloride. Beware - all of these can be fatal.

**Fire Extinguisher Types**

Fire extinguishers are divided into four categories, based on different types of fires. Each fire extinguisher also has a numerical rating that serves as a guide for the amount of fire the extinguisher can handle. The higher the number, the more fire-fighting power. The following is a quick guide to help choose the right type of extinguisher.

**Class A** extinguishers are for ordinary combustible materials such as paper, wood, cardboard, and most plastics. The numerical rating on these types of extinguishers indicates the amount of water it holds and the amount of fire it can extinguish.

**Class B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease and oil. The numerical rating for class B extinguishers indicates the approximate number of square feet of fire it can extinguish.

**Class C** fires involve electrical equipment, such as appliances, wiring, circuit breakers and outlets. Never use water to extinguish class C fires - the risk of electrical shock is far too great! Class C extinguishers do not have a numerical rating. The C classification means the extinguishing agent is non-conductive.

**Class D** fire extinguishers are commonly found in a chemical laboratory. They are for fires that involve combustible metals, such as magnesium, titanium, potassium and sodium. These types of extinguishers also have no numerical rating, nor are they given a multi-purpose rating - they are designed for class D fires only.

Before using your fire extinguisher, be sure to read the instructions before it's too late. Although there are many different types of fire extinguishers, all of them operate in a similar manner.

**How to Fight a Fire:**

Use this acronym as a quick reference (it is a good idea to print this reference and pin it next to your fire extinguisher):

**P A S S**

**Pull** the Pin at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.

**Aim** at the base of the fire, not the flames. This is important - in order to put out the fire, you must extinguish the fuel.

**Squeeze** the lever slowly. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

**Sweep** from side to side. Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish. Be sure to read the instructions on your fire extinguisher - different fire extinguishers recommend operating them from different distances.

Remember: Aim at the base of the fire, not at the flames!!!!

A typical fire extinguisher contains 10 seconds of extinguishing power. This could be less if it has already been partially discharged. Always read the instructions that come with the fire extinguisher beforehand and become familiarized with its parts. It is highly recommended by fire prevention experts that you get hands-on training before operating a fire extinguisher. Most local fire departments offer this service.

Once the fire is out, don't walk away! Watch the area for a few minutes in case it re-ignites.

Recharge the extinguisher immediately after use.

**General Forklift Operation;**

* Only authorized and certified operators may operate forklifts in any manner;
* Understand that every lift, carry, and placement is unique and must be assessed and treated with respect and competence;
* Know and never exceed the load limits of the forklift;
* Always complete the pre-use checklist each day prior to using the forklift. Conduct all visual and operational checks and complete the checklist;
* Always wear your seatbelt prior to stating the forklift;
* Confirm overhead clearance prior to raising a load to any height;
* Keep all parts of your body inside the cab of the forklift at all times. Most fatalities occur when the operator attempts to abandon the forklift during a rollover;
* Remain constantly alert for changing or unusual conditions;
* Always keep the load on the “high side” of a ramp. This means, when unloaded, travelling forwards down a ramp and reverse up the ramp. When loaded, travel down a ramp in reverse and travelling forwards when going up.
* Always cross a railway track on a diagonal line;
* Always be aware and deliberate about how the position of a load will affect load stability;
* Always be aware and deliberate about how the route traveled will affect load stability;
* Always be aware and deliberate about how the forklift’s speed will affect load stability. Always follow speed limits as posted in the yard;
* Use a qualified flag and signal person if your vision is obstructed in anyway by the load or route that must be travelled.

**General Power Tool Safety**

**– READ AND UNDERSTAND ALL INSTRUCTIONS AND MANUFACTURER’S MANUAL BEFORE USING ANY TOOL OR EQUPIMENT**

* Keep people not involved in the work a safe distance from the work area.
* Avoid accidental starting; do not leave fingers on the switch when carrying tool.
* Do not use tool if the switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
* Wear proper PPE and apparel for the task. Loose clothing, hair, ties, or jewellery can become caught in the moving parts. Safety Eyewear should always be worn when using a power tool.
* Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected conditions.
* Follow instructions in the user’s manual for lubricating and changing accessories.
* Remove all damage portable electric tools from use and tag them: “Do Not Use.”
* Do not force the tool. Use the correct tool for the work.
* Do not expose the tool to rain or wet conditions. Store tools in a dry place when not in use.
* Do not operate power tools in explosive atmospheres. The tool may generate sparks which could ignite flammable liquids, vapours or dusts.
* Keep the work area clean and well lit and ensure a stable work surface.
* Always inspect each tool for defects before each operation.
* Keep all guards in place. Removal of guards is strictly prohibited.

**Defective Tools**

Defective tools and equipment can cause serious injuries and must be removed from service for repair or replacement.

* Remove defective tools from service immediately;
* Tag each defective tool as soon as detected. It is your responsibility to ensure defective tools are not used by fellow employees;
* Watch for defects such as, but not limited to:
  + Mushroomed heads on chisels and wedges;
  + Split, cracked, worn, chipped, missing, or broken handles;
  + Worn out jaws and teeth;
  + Broken or ineffective guards;
  + Switches not in good working order;
  + Incorrect wheels and blades installed on grinders and saws;
  + Cords that are damaged or missing proper grounding plugs;
  + Tools that are past due to be service according to manufacturer’s specifications;

**General Use of Cleaning Solvents and Flammables**

Cleaning solvents are used in the day-to-day work to clean tools and equipment. Special care must be taken to protect the worker from hazard which may be created from the use of these liquids.

Whenever possible, solvents should be non-flammable and nontoxic.

The foreman must be aware of all solvents / flammables that are used on the job, and be sure that all workers who use these materials have been instructed in their proper use and any hazard they pose.

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

* Use non-flammable solvents for general cleaning.
* When flammable liquids are used, make sure that no hot work is permitted in the area.
* Ensure appropriate safeguards and practices are used to prevent fire and/or explosion.
* Store flammable and solvents in special storage areas.
* Check for specific hazards associated with solvents before use. (MSDS)
* Provide adequate ventilation where all solvents and flammables are being used.
* Wear protective clothing to prevent contamination of workers’ clothes.
* When breathing hazards exist, use the 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.
* When solvents are controlled products, ensure all employees working with or near controlled products are trained and certified in the Workplace Hazardous Materials Information System.
* Ensure all WHMIS requirements are met.

**Grinding and Portable Grinders;**

**– READ AND UNDERSTAND ALL INSTRUCTIONS AND MANUFACTURER’S MANUAL BEFORE USING ANY TOOL OR EQUPIMENT**

**General Grinding operation –**

* Severe injury may occur if proper PPE is not used and maintained;
* Wear CSA approved safety glasses at all times when grinding. Glasses must have adequate side protection or be a CSA approved goggle to ensure complete eye protection;
* Ensure the tool rest is set at the correct distance from the abrasive wheel. Not more than 3mm or 1/8”.
* Replace the grindstone when the tool rest cannot provide the required maximum of not more than 3mm or 1/8”.
* If the wheel has been abused, damaged, or ground to and angle or groove, reface the wheel;
* Each time a grinding wheel is mounted, the maximum approved speed stamped on the wheel bladder must be checked against the shaft rotation speed of the machine to ensure the safe peripheral speed does not exceed the manufacturer’s recommendations;
* The flanges supporting the grinding wheel should be a maximum of 1/3 the diameter of the wheel and must fit the shaft rotating speed according to the manufacturer’s recommendations;
* Bench grinders are designed for peripheral grinding. Do not grind on the side of the wheel;
* Do not stand directly in front of the grinding wheel when it is first started.

**Portable Grinding operation –**

* Severe injury may occur if proper PPE is not used and maintained;
* Ensure all guards are in place and wear CSA approved safety glasses, leather gloves and safety boots at all times when grinding;
* Never exceed the maximum wheel speed. Check the speed marked on the wheel against the grinder speed to ensure compliance;
* When mounting wheels, check for cracks and defects. Ensure that the mounting flanges are clean and the mounting blotters are used. Do not over tighten the mounting nut;
* Run newly mounted wheels before grinding at operating speeds to check for vibrations;
* Never use grinders near flammable material;
* Never use grinders for jobs not intended for grinders (such as cutting).

**Hoisting and Lifting;**

Remember the law of gravity is forever present when hoisting and lifting. It is an unforgiving law and can become dangerous is complacency is present during any lift.

Basic Rules:

* Inspect all rigging prior to use;
* Know the weight of each load and the capacity of the hoisting equipment;
* Be aware of the centre of gravity of each load;
* Select the hitch that will allow for the best control of a load;
* Know the rated capacities of slings and ensure they are tagged;
* Protect slings from sharp edges;
* Protect load from the sling;
* Attach tag lines prior to lifting load;
* Keep unauthorized personnel clear of lift area;
* Start and stop lifting slowly;
* Lift load a few inches a few inches and check rigging and centre of gravity before lifting;
* Watch for obstructions and follow had signals;
* Always maintain control of the load.

Signaling is an important part of hoisting and rigging. Hand signals are the most effective form of communication between riggers and crane operators

Signaling is required when:

* The operator cannot see the load;
* The operator cannot see the load landing area;
* The operator cannot see the path of travel either of the load or the crane;
* The operator is too far from the load to accurately judge the distance;
* The crane is working close to live powerlines or other equipment.

Basic Rules for Signaling:

* Only one person shall signal the operator;
* Anyone can give the STOP signal and it must be obeyed immediately;
* Signals should be given with bare hands and clear movements;
* They load should be directed so that it never passes over anyone;
* An operator should not make a move until he receives the signal;
* An operator should not make a move unless he fully understands the signal;
* An operator should not move if visibility with the signaller is lost.

**Ladders – Step Ladder Use**

**DO:**

* Use a stepladder that is about 1 m (3 ft) shorter than the highest point you have to reach. This gives a wider, more stable base and places shelf at a convenient working height.
* Open the stepladder spreaders and shelf fully.
* Check stability. Ensure that all ladder feet are on a firm, level and non-slippery surface.
* Place a stepladder at right angles to the work, with either the front or back of the steps facing the work.
* Keep the stepladder close to the work.
* Avoid pushing or pulling stepladders from the side. Repeated sideways movement can make ladders wobbly since they are weaker or less stable in those directions.
* Face the stepladder when climbing up or down. Keep your body centered between side rails. You have climbed too high if your knees are above top of the stepladder or if you cannot maintain a handhold on the ladder.
* Maintain a firm grip. Use both hands when climbing.

**Do Not:**

* Do not overreach. Move a stepladder when needed.
* Do not "shift" or "walk" a stepladder when standing on it.
* Do not stand, climb, or sit on the stepladder top or pail shelf.
* Do not overload. Stepladders are meant for one person.
* Do not use a stepladder as a brace or as a support for a work platform or plank.
* Do not climb a stepladder that is leaning against a wall. Use a straight ladder instead.
* Do not use stepladders on slippery surfaces
* Do not use stepladders on soft ground where one leg may sink farther into the ground than others.
* Do not place stepladders on boxes, unstable bases or on scaffolds to gain additional height.
* Do not climb the back of a stepladder.
* Do not push or pull stepladders sideways.
* Do not use ladders in passageways, doorways, driveways or other locations where a person or vehicle can hit it. Set up suitable barriers or lock doors shut.

**Lifting and Carrying**

**When lifting, remember to:**

* Look and plan ahead. Make sure your path is free of obstructions.
* Stand close behind the load.
* Check that you can get a good grip on the load.
* Wear gloves, if necessary, to prevent scrapes or bruises.
* Straddle the load:
  + Place the leading foot flat beside the load in the direction of travel.
  + Place the rear in the direction of travel.
* Bend the hips and knees.
* Keep your back straight.
* Grasp the load with elbows inside the thighs:
  + Use a power grasp for loads with handles.
  + Use slings or hooks to improve grasp when loads do not have handles.
  + Use blocks under loads without handles to make lifting them up easier and safer.
  + Use a ledge grasp for loads without handles.
* Grasp with one hand at the outer, upper corner, over the leading foot and the other hand on the lower, opposite corner.
* Lean forward with the rear arm straight. This position gets the load moving.
* Stand up by thrusting off with the back leg and continuing in an upward and forward direction.
* Keep the load close to the body.
* Use your thigh and leg muscles, not your back, as you lift in one, smooth motion.
* Keep the rear arm straight.
* Move off without twisting the body.
* Keep the load at a reasonable height so you can see where you are going.

**When putting a load down:**

* Take a wide stance with one foot in front of the other.
* Keep the load close to the body.
* Keep the back straight.
* Bend the hips and knees.
* Set the load down onto the ground.
* Keep the load tilted to avoid bruising fingers.
* Remove fingers from under the load.
* Stand up smoothly, easing muscles.
* Avoid jerky releases.

**PME - General use of Powered Mobile Equipment (continued)**

**Storage Requirements**

* Bulk fuel storage tanks must be grounded and set up in accordance good environmental practices. Storage tanks must be identified with the contractor or subcontractor’s name, contents, product labels and flammable decals. Storage/tidy tanks in vehicles being refueled must be bonded to the supplying tank prior to refueling.
* Filler hoses must be bonded from the tank to the dispensing nozzle. Vehicles dispensing fuel must have a static ground, attached to the unit being fueled. The ground must be attached prior to any refuel operations.

**Refueling**

* Equipment and vehicles must be turned off during refueling. Smoking, welding or any spark/flame producing operation must be stopped within a 25-ft. radius during refueling operations.
* High visibility signs will be posted at all fueling locations, (i.e., no smoking, turn off ignition, etc.) Fueling operations must be attended while in progress.
* Fire extinguishers will be mounted on all Contractor’s or Subcontractor’s equipment and vehicles and must be located adjacent to all fueling areas. Bristal Hauling Inc.’s minimum standard is (1) 20lb ABC Fire Extinguisher when working with or near flammable and combustible liquids.
* Procedures for refueling mobile equipment must be developed and include:
* Vehicles and mobile equipment to be refueled in an area that well away from the general work area and from any source of ignition including smoking.
* There will be a drain system or spill pans to contain possible oil and fuel spillage in this area.
* Refueling of generators, welding machines, portable pumps etc. Requires the use of spill trays.
* Fuel nozzles shall be pressure-sensitive

**PME – Operations of Excavators**

**Equipment and Worker Certification**

* Users of this equipment must be adequately qualified, suitably trained and with sufficient experience to use this equipment without supervision, or be under the direct supervision of a worker who is.
* All operators must undergo a competency evaluation that is to be conducted by their supervisor
* Standard PPE applies including safety glasses, hardhat, high visibility stripes, gloves and hearing protection

**Startup**

* Complete pre-startup portion of pre-use inspection.
* All personnel must be clear of machine and objects are not in operating zone
* Ensure ground engaging equipment is properly contact grounding surface
* Master Switch turned on and engage starter
* Ensure equipment is in neutral and brakes are engaged
* Exit machine using steps and hand grips with three point contact
* Complete remainder of pre-use inspection
* Stay clear of all rotating and moving parts.

**Operation**

* Ensure seatbelt is fastened and ensure that no objects are in working area of the cab (lunchboxes or backpacks) that could affect movement of hand controls or visibility
* Turn on operating lights
* Lift ground engaging equipment (bucket)
* Release brake system
* When the machine is moving watch the clearance of the boom. Uneven ground can cause the boom to move in all directions unexpectedly.
* Be careful to avoid any ground condition which could cause the machine to tip. Tipping can occur when you work on hills, on banks, or on slopes. Tipping can also occur when you cross ditches, ridges, or other unexpected obstructions.
* Visibility is a KEY, when visibility of nearby personnel or equipment is lost, all movements of the machine must STOP immediately
* When working with groundman, visibility is the key component, ensure groundman is wearing high visibility vest
* Never have personnel working under the boom and bucket area
* Eye contact with groundman when moving around machine’s working radius
* Always put ground engaging equipment (bucket) down when exiting cab for any reason
* Attempt to work on level ground whenever possible
* Avoid operating machine across slopes, when possible operate up and down slopes
* Avoid changing the direction of travel on a slope. This could result in tipping or side slipping of the machine.
* Bring the load close to the machine before travelling any distances.
* Bring the load close as possible to the machine before swinging the load.
* Lifting capacity decreases as the load is moved further from the machine.
* When you operate the machine on a slope use a low ground speed for maximum control of the machine

**PME – Operations of Excavators (continued)**

* Rocks and moisture of the surface material may drastically affect the machine's traction and machine's stability. Rocky surfaces may promote side slipping of the machine.
* Where an unattended unit is on sloping ground or adjacent to an excavation, the unit shall have its brakes applied and the attachments lowered to prevent movement.
* Awareness of track stability when lifting bucket into air for dumping procedures
* Ensure there is proper clearance in height for dumping into truck, awareness of your swing radius when swinging equipment around
* Ensure loading area is free of excess debris which could cause uneven ground surfaces
* When loading from a stockpile ensure undercutting is not taking place

**Shutdown**

* Ensure excavator is parked on solid level ground whenever possible
* Ensure parking brake is engaged
* Lower ground engaging attachments (bucket)
* Turn off excavator

**PME – Operations of Highway Trucks**

**Equipment and Worker Certification**

* Users of this equipment must be adequately qualified, suitably trained and with sufficient experience to use this equipment without supervision, or be under the direct supervision of a worker who is.
* All operators must undergo a competency evaluation that is to be conducted by their supervisor
* Standard PPE applies including safety glasses, hardhat, high visibility stripes, gloves and hearing protection

**Startup**

* Complete pre-startup pre-use inspection
* All personnel must be clear of machine and objects are not in operating zone
* No worker, other than the operator shall ride in the machine unless it is for training purposes
* Removal of spill tray (if required)
* Master Switch turned on
* Awareness of wind direction in regards to exhaust during start-up process
* Remove wheel chocks (if required)
* Ensure transmission is in Neutral or Park
* Engage starter
* Ensure equipment is in neutral and brakes are engaged
* Exit machine using steps and hand grips with three point contact
* Complete visual of machine exterior for hydraulic leaks
* Stay clear of all rotating and moving parts

**Operation**

* Ensure seatbelt is fastened
* Ensure that no objects are in working area of the cab (lunchboxes or backpacks) that could affect movement of hand controls or visibility
* Turn on operating lights
* Release brake system
* Engage machine for forward or reverse movement
* Visibility is a KEY, when visibility of nearby personnel or equipment is lost, all movements of the machine must STOP immediately
* When working with spotter, visibility is the key component, ensure spotter is wearing high visibility vest
* Always put brake system on when exiting cab for any reason
* Attempt to work on level ground whenever possible
* Avoid operating machine across slopes, when possible operate up and down slopes
* Avoid putting equipment in Neutral when going downhill as this will require more brake power to slow down
* Move forward 1 truck length maximum in the unloading process
* Do not leave cab area during the loading or unloading process
* When you operate the machine on a slope use a low ground speed for maximum control of the machine
* Rocks and moisture of the surface material may drastically affect the machine's traction and machine's stability. Rocky surfaces may promote side slipping of the machine.

**PME – Operations of Highway Trucks (continued)**

* When traveling equipment, keep a safe distance from other equipment. Drive to the conditions of the road
* Where an unattended unit is on sloping ground or adjacent to an excavation, the unit shall have its brakes applied and the chocks in place to prevent movement
* Ensure there is proper clearance in height for dumping of truck box
* Ensure loading/unloading area is free of excess debris which could cause uneven ground surfaces

**Shutdown**

* Ensure excavator is parked on solid level ground whenever possible
* Ensure parking brake is engaged
* Lower ground engaging attachments (bucket)
* Turn off excavator
* Place spill pan under motor area

**PME – Operations of Loaders**

**Equipment and Worker Certification**

* Users of this equipment must be adequately qualified, suitably trained and with sufficient experience to use this equipment without supervision, or be under the direct supervision of a worker who is. All operators must undergo a competency evaluation that is to be conducted by their supervisor.
* Standard PPE applies including safety glasses, hardhat, high visibility stripes, gloves and hearing protection

**Startup**

* Complete pre-startup portion of pre-use inspection.
* All personnel must be clear of machine and objects are not in operating zone
* Ensure ground engaging equipment is properly contact grounding surface
* Master Switch turned on
* Engage starter
* Ensure equipment is in neutral and brakes are engaged
* Exit machine using steps and hand grips with three point contact
* Complete remainder of pre-use inspection
* Stay clear of all rotating and moving parts.

**Operation**

* Ensure seatbelt is fastened. Ensure that no objects are in working area of the cab (lunchboxes or backpacks) that could affect movement of hand controls or visibility
* Turn on operating lights
* Lift ground engaging equipment
* Release brake system
* Visibility is a KEY, when visibility of people and equipment is lost, all movements of the machine must STOP immediately
* When working with groundman, visibility is the key component, ensure groundman is wearing high visibility vest
* Eye contact with groundman when moving around machine’s working radius
* Always put ground engaging equipment down when exiting cab for any reason
* Avoid undercutting side walls when pushing in stockpile situations
* Avoid pushing dirt above blade height as this can hamper visibility and possibly damage hydraulic lines behind blade with falling material
* When pushing downhill, try to push straight down not at an angle
* Keep all attachments low to the ground for optimum stability.
* Where an unattended unit is on sloping ground or adjacent to an
* Excavation, the unit shall have its brakes applied and the attachments lowered to prevent movement.

**Shutdown**

* Ensure loader is parked on solid and level ground whenever possible
* Ensure parking brake is engaged
* Lower ground engaging attachments
* Turn off loader and turn off master switch

**Power Saw Operation**

**– READ AND UNDERSTAND ALL INSTRUCTIONS AND MANUFACTURER’S MANUAL BEFORE USING ANY TOOL OR EQUPIMENT**

* Follow all general power tool safe work practices in addition to specific safe work practices;
* Always wear all approved PPE to protect eyes, hearing, and hands;
* Keep all body parts well away from the blade and any moving parts;
* Know how to stop the saw quickly in case of emergency;
* Shut off engine and allow to cool before refuelling;
* Inspect blade, flanges and shafts for damage before installing blade;
* Use only reinforced abrasive blades or steel centre diamond blades manufactured for use on stone;
* Use only blades marked with a maximum operating speed greater than blade shaft speed;
* Keep all bystanders away when starting, refuelling or cutting;
* Operate only in properly ventilated areas;
* Blade exposure should not be over 180 degrees;
* Do no operate in areas of any combustible material. Sparks from the saw may cause fire or explosion;
* Do not use an abrasive blade that has been dropped or damaged in any way.

**Preventing Slips, Trips & Falls**

One of the most common hazards for workers is slipping on wet floors or tripping over an object. A slip or trip may result in a fall. A fall may cause injuries such as broken bones, head injuries, sprains, strains or bruises.

Slips occur when there is too little traction between the footwear and the floor, such as:

* Wet, waxed, oily floors
* Loose mats or carpets
* Weather hazards (ice, rain, snow)
* Improper footwear (slippery soles)

Trips occur when your foot hits something that causes you to lose your balance and fall, such as:

* Poor
* lighting
* Clutter
* Wrinkled carpeting
* Obstructed view
* Cables/cords in the open
* Bottom drawers open
* Uneven surfaces
* (steps, thresholds)

Good Housekeeping is the first and most important step in preventing falls due to slips and trips. Non-slip flooring, specialty footwear, or training on techniques of walking and safe falling are only effective with good housekeeping practices.

* Clean all spills and debris immediately
* Mark spills and wet areas with warning signs and barricades
* Spread grease-absorbent compound on oily surfaces
* Keep walkways and doorways free of clutter
* Secure mats, rugs, and carpets that do not lay flat by tacking or taping them down
* Always close cabinet or storage drawers
* Cover cords/cables that cross walkways
* Keep working areas and walkways well lit

Footwear: use properly fitted footwear in areas where floors may be oily or wet (outdoors). Proper footwear increases comfort and prevents fatigue, which improves safety. No footwear has anti-slip properties for every condition (consult manufacturer).

**DO:**

* Work at an appropriate pace and avoid rushing through your work to reduce the chances of a fall.
* Take your time and pay attention to where you are going
  + Walk with your feet pointed slightly outward
  + Make wide turns at corners
* Ensure Proper Visibility
  + Always use available light sources to provide sufficient light for your tasks
  + Use a flashlight when entering a dark room
* Ensure the things you carry, push, or pull, do not prevent you from seeing obstructions or spills

**Propane Tank Handling**

Propane leaks can cause serious fires and explosions. Propane gas, which is heavier than air, may leak and accumulate to create a dangerous environment, as it tends to creep along the ground and collect in low spots.

General propane safety

* Ensure WHMIS and TDG labels are appropriately attached and visible.
* Propane cylinders must be secured in a level, upright position during storage, transportation, and use. A well ventilated area must be used.
* When checking for connection leaks use a soapy water solution.
* When not in use, cylinder to be secured in upright position, valve closed and regulator removed.
* Cylinders should not be used if shoulder label/stamp is not legible.
* When not in use, a plug or cap must be used to seal the valve opening.
* Ensure cylinders in storage or transit are equipped with valve cap or collar and regulator is removed.
* Cylinder must not to be painted over in any fashion.
* Cylinders that are not being used should be stored outdoors.
* Check propane cylinders for damage or corrosion prior to use.
* All propane and burner systems must be provided with a functional regulator.
* Never apply a flame to cylinders to increase their pressure.
* Do not operate any equipment if the odour (rotten egg smell) of propane is present.
* Do not hoist propane cylinders by their valves or collars.
* Prior to use, propane hoses must be:
  + Checked for damage and replaced if necessary
  + Protected from traffic damage
  + Checked for leaks at their connections (use a liquid soap test — bubbles will appear if a leak is present)
* Propane cylinder valves must be fully opened when in use and tightly closed when not in use.
* During propane use, fire extinguishers must be available.

In the event of a propane fire

* Shut off the propane gas valve if safe to do so.
* Evacuate the area.
* If the propane gas flow cannot be shut off safely:
  + Allow the propane gas to burn
  + Evacuate the area and immediately call the fire department

**Safe Chemical Handling Rules;**

All hazardous material and substances must be identified and effectively controlled to eliminate and control the dangers and hazards associated with their transportation, storage, use and disposal.

Employees working with hazardous chemicals shall be trained and instructed in the proper handling of all hazardous and controlled chemical and where to find information about controlled products.

Prior to handling any hazardous or controlled products, all workers must first receive training in WHMIS and familiarize themselves with the current MSDS of each associated product.

General Procedures:

* Workers must have access to all information regarding the handling of hazardous materials. Read and understand all MSDS and labels prior to working with or near hazardous materials;
* Follow all instruction on the MSDS at all times;
* Wear the approved PPE that is required by the MSDS prior to interacting with the hazardous materials. If approved PPE is not available, do not proceed until it is obtained;
* Be aware of emergency and clean up procedures as specified by the MSDS in the event of an incident;
* Ensure first aid and portable eye wash stations are available as directed by the MSDS.

**Safe Driving - General**

Protecting workers and others from injuries while operating a motor vehicle is the responsibility of all employees of Bristal Hauling Inc..

**Do:**

* Ensure you have a valid operator’s license.
* Be conversant with traffic laws and applicable regulations.
* Drive defensively.
* Back in when practical.
* Ensure the vehicle has an emergency road kit.
* Ensure seatbelts are worn at all times when the vehicle is being operated.
* Be familiar with the vehicle and its’ capabilities.
* Perform a “walk around” inspection prior to travelling.
* Use good judgment and understand of the basic recovery skills appropriate to the vehicle you are driving.
* Clear snow from all windows, lights and mirrors, when required.
* Accelerate and brake gently to reduce skids or spinouts.
* Ensure winter clothing does not restrict movement, vision or hearing.
* Refer to Working Alone procedure when driving in isolated areas.

**Do Not:**

* Do not operate a cell phone while driving.
* Do not drive under the influence of alcohol or drugs.
* Do not drive when fatigued.
* Do not offer rides to strangers or hitchhikers.
* Do not use cruise control on icy roads.

**Safe Driving – Reversing and Backing up Vehicles;**

* The driver or operator of a vehicle is responsible for the safe operation of that vehicle;
* All vehicles delivering to a job site on public roadway shall be assisted by a spotter or flag person when the vehicle must back in;
* The spotter will check the pathway by walking it before guiding the dumping vehicle into the site;
* The spotter shall ensure that the pathway is clear of all unauthorized persons, vehicles, or obstructions before signalling the driver to proceed with backing into position;
* Vehicle operator and spotter must maintain visible contact with each other at all times. If contact is lost the operator must stop immediate.

**Saws – Chainsaw**

* Only use chain saws that you have been trained to use properly and safely. Read the owner's manual carefully. Make sure you understand instructions before attempting to use any chain saw.
* Operate the chain saw in well-ventilated areas only.
* Wear personal protective equipment and clothing. ll hazards.
* Only operate saws when you are well rested. Fatigue causes carelessness. Be cautious before breaks and end of shift.
* Have all required supplies and equipment with you before you start the work.
* Be aware of your surroundings -- weather conditions, terrain, wildlife, buildings, power lines, vehicles, and other people.
* Know how to use the controls before starting a chain saw.
* Remove the chain guard (scabbard) and inspect the saw and machine for damaged, loose, missing parts, or other signs of wear, or leaks around the engine before starting. Ensure that the guide bar is tight and chain fits snugly without binding; adjust the chain tension, if required. Inspect the saw chain to ensure it is properly lubricated and is sharp. Sharpen and lubricate, as needed.
* Ensure that chain is clear of obstructions before starting.
* Engage the chain brake before starting the chain saw.
* Ensure that you have secure footing and that your stance is well balanced.
* Do not use a saw if it has damaged, improperly adjusted, or has loose or missing parts.
* Do not make adjustments to the chain or guide bar when the motor is running.
* Follow manufacturer's directions for oil/gas mixture to be used.
* Do not refuel a running or hot saw.
* Mix fuel in a well-ventilated area. Keep a well-maintained fire extinguisher nearby.
* Do not smoke or allow any ignition sources while refueling.
* Plan each job before you start. Arrange to have help.
* Carry the chain saw by its front handle, with the muffler away from your body and the guard bar pointing behind you.
* Know the location of the persons working with you at all times.
* Use the correct saw. The weight, power, and bar length should all be suitable for the job.
* Operate the chain saw in a firm two-handed grip with fingers and thumb surrounding the handles. Keep both feet firmly positioned when operating a chain saw.
* Maintain full power throughout each cut.
* Ensure that the chain does not move when the chain saw is idling.
* Turn off the chain saw before refueling or doing any maintenance.
* Keep your saw clean -- free of sawdust, dirt and oil.
* Wear safety gloves or mitts when sharpening the chain.
* Do not start a chain saw when it is resting against any part of your body.
* Do not refuel a chain saw within 3 m (10 ft) of a fuel storage container.
* Do not stand directly behind the saw.
* Do not leave a saw running unattended.
* Do not carry chain saws while it is running.
* Avoid contact with the muffler. Serious skin burns may result.
* Do not cut alone.

**Saws – Quick Cut Saw**

* Don’t use a saw unless you have been properly trained in its safe operation and are wearing the right protective equipment.
* The sound from a quick-cut saw can exceed 105 db. Always wear hearing protection when cutting.
* Before using the saw, make sure the blade is covered with a working guard.
* The saw blade or disk can spin at 15,000 rpm. A piece of material or shattered blade will be thrown out at up to 290 km/hr causing serious injury to the face and other parts of the body.
* This is why a face shield is used in conjunction with goggles as eye protection.
* Start the quick-cut saw on a smooth hard surface. Place one foot on the rear handle of the saw and one hand on the top handle to lift the blade of the surface. Use the other hand to pull the starter cord.
* Never hold the saw with one hand and start it in a standing position. Make sure the material being cut is supported so the blade will not bind in the cut and kickback toward you.
* Grip the saw firmly with one hand on each handle.
* Hold your forward arm straight to keep the saw from kicking back.
* To ensure blades don’t break, always use disks for the materials they are designed to cut. Do not apply excessive pressure when cutting.
* Don’t make long continuous cuts with dry cutting blades. Never try to change the direction of a cut part way through.
* Replace damaged disks immediately.
* Turn the saw off before you move around the job site.
* As with any piece of small equipment, let the engine cool for a few minutes before refueling.
* Guards and intakes must be cleaned regularly in accordance with manufacturer’s recommendations.
* Personal Protective Equipment: hard hat, goggles, face shield, dust mask, ear protection, gloves, long pants, work boots.

**The main safety hazards with quick-cut saws are:**

* Kickback and pull-in.
* Cuts and entanglement.
* Airborne dust, carbon monoxide and noise.
* Flying particles.
* Fire from refueling and sparks.

**Saws - Reciprocating Saw**

This information does not take precedence over OH&S. All employees should be familiar with the OH&S Act and Regulations and the operator’s manual for the tool.

General: The reciprocating saw or sawzall can be used in the same place that you would use a hacksaw, handsaw or drywall saw. This enables you to do the work faster and with less strain and exertion.

* Know your equipment. Learn the operation, application and limitations as well as the specific and potential hazards of the equipment before operating it. Refer to the operating manual if necessary. Have someone with experience assist you before using the tool on your own.
* Wear adequate PPE, and keep observers at a safe distance from the work area. Minimum PPE for this equipment is safety glasses. Check the MSDS before starting work for material-specific hazards that could require other PPE.
* Always use an appropriate blade for the material that is being cut.
* Always unplug/remove the battery of the reciprocating saw when changing to a different type of blade.
* Ensure that there is adequate room to work with the reciprocating saw. Don’t stick yourself in a corner.
* Watch where the piece that you are cutting off will fall, and make sure that your or someone else has control over it.
* Refer to the manufacturer’s instructions for maintenance specifications.
* If you are working off a ladder or scaffold, make sure that the reciprocating saw is secured in case you drop it. Reaching out to grab a falling tool can lead to losing your balance and falling off your ladder or scaffold.

Make sure the reciprocating saw is returned to its case and locked up when you are finished with it.

**Snow Shoveling**

The potential for musculoskeletal injury is high when shovelling snow.

**Do:**

* Before you begin
  + Warm up your muscles for 10 minutes with light exercise or stretching
  + Check with your doctor before shovelling if you have a medical condition or do not exercise regularly
* Dress in layers
* Shovel early and often newly fallen snow is lighter than heavily packed or partially melted snow.
* Push the snow; It is better to push the snow rather than lifting it but, if you must lift the snow, lift it properly
  + Keep the shovel close to your body
  + Space your hands on the shovel to increase leverage
  + Shovel an inch or two off the top of the snow
  + Use a shovel that feels comfortable for your height and strength
* Lift the snow
  + Squat with your legs apart, knees bent and back straight
  + Lift with your legs do not bend at the waist
  + Scoop small amounts of snow into the shovel and walk to where you want to dump it
* Pace yourself
* Take frequent breaks and replenish fluids to prevent dehydration, which affects muscle movement – shovelling snow is an aerobic activity
* Use mechanized snow removal equipment whenever possible.

**Do not:**

* Hold a shovelful of snow with your arms outstretched – it puts too much weight on your spine
* Remove deep snow all at once
* Throw the snow over your shoulder or to the side – this requires a twisting motion that stresses your back
* Use a shovel that is too heavy or too long

**Tiger Torch Operation;**

Tiger torches are primarily used for Lutz burner ignition. They are a valuable job-site tool but can become very dangerous if not used properly.

* Follow all safe work practices for working with propane in addition to the tiger torch specific safe work practices;
* Use nylon sling in a choker fashion when loading, off-loading or lifting propane tanks. “Lifting lugs” provided on tanks are not to be used. Slings are to be wrapped around the shell of the tank;
* Always have the correct fire extinguisher present when using a tiger torch;
* Propane tanks are not to be used without the correct regulator;
* Ensure propane tanks are shut off when not in use;
* Tanks are not to be heated to increase propane flow;
* Any movement or repositioning of tanks shall be performed by a competent worker.

**Towing a stuck truck**

* Ensure that the towing device and all components are in good repair.
* Only approved company supplied towing equipment is to be used. The tow device (rope, cable, chain, etc...) must be rated in excess of weight to which it will be towed with.
* Any tow device which shows any defect or excessive wear will not be used. These tow devices will be replaced immediately.
* The operator of the truck being towed is in charge of the towing procedure.
* Always conduct a risk assessment and establish clear lines of communication prior to towing the stuck truck.
* The operator of each truck is responsible for attaching the tow device to their own truck one at a time.
* While attaching the tow device, the other operator will act as a spotter to ensure the area is clear of other equipment and people that may interfere with the towing procedure.
* Both vehicles must be at a complete standstill and both operators out of the cabs prior to and during the attachment of the tow device.
* Wherever there is a possibility of inadvertent movement of a truck then the operator of the truck must take measures to secure the truck from such movement.
* Use radio communications to keep lines of communication open during the towing procedure.
* Both operators must perform a radio check with each other prior to beginning the tow operation in order to ensure that radio communications exist.
* Other employees must keep adequate distance from the tow line in the event of a tow line breakage. Stay out of the line of fire!
* The in charge operator (in the vehicle being towed) will signal via radio when to begin towing and again when to stop.

**After Towing**

* The tow device must be properly stored and cared for.
* The tow device must not be dragged behind the vehicle or equipment.
* The tow device must not be left lying where it may be run over.
* Report the incident to management and complete the appropriate incident report.
* Included the tow information on your time card to ensure the mechanics inspect the truck and trailer for hidden damage.

**Hazards**

* The tow device will be under considerable strain when one vehicle is towing another. There is potential that the device may snap and flyaway from the towing vehicles/equipment with great force. Employees not directly involved in the tow operation must maintain a safe distance of at least 10m from the towing operation so as to avoid being hit by a snapped towing device.
* Any worn or degraded towing devices are at greater risk of snapping and must not be used.
* Without proper communication the two trucks may collide with each other. The operators must ensure that they have verbal communications with each other and that they can see the other truck during the operation.

**Trucks and General Truck Operations;**

Always follow safe and defensive driving practices when in operation a motor vehicle.

As end-dump truck and semi-trailer dumping rigs get longer, the incident of units tiping has increased. The main hazard is the stability of the unit when the box is in the raised position. Over head wires can also pose an extreme danger where hydro and telephone lines are present.

Stability:

The risk if tipping is significant when the centre of gravity of the box is not approximately between the frame rails, Stability is adversely affected by the following factors:

* The unit is not on a level surface;
* There is a large amount of material in the upper portion of the raised box;
* Material does not flow out of the top portion of the box or one side;
* The rear wheels settle unevenly as the load moves to the rear for dumping;
* Wind may exert lateral pressure especially if the box is long.

Mechanical factors that affect stability:

* Poor rear suspension systems on one side of the vehicle;
* Uneven tire pressure in the rear wheels;
* Worn or inadequate components of the lifting system (e.g. – Pins);
* Worn or inadequate lifting cylinders.

Hazard controls:

* Belly dumps are more suitable for spreading then end-dumps;
* Rough grades, uneven surfaces, fill areas with loose compaction are more suited to straight tracks;
* Heated boxes will alleviate the problem of materials freezing to boxes in cold weather;
* Do not leave materials in boxes overnight in cold weather;
* Check for defective or missing footholds. Make sure footholds are clear of mud, ice, or grease;
* Always use three point contact when mounting or dismounting. Do not jump to the ground.

Maintenance:

* Check tire pressure daily and ensure it is equal on each side;
* Examine and lubricate pins and bushings regularly;
* Inspect suspension systems under load and ensure even suspension. Replace weak suspensions;
* Inspect hoist cylinders regularly. Only replace defective cylinders appropriately;
* Ensure repairs to the box leave the bottom and sides clear and unrestricted. Rough patch work can catch and hold sticky material.

Loading:

* Load front to back. Do not exceed allowable gross weight and axle limitations;
* Load side to side as evenly as possible;
* Lighten the load at the front of the box if the material is sticky;
* Box liners help most materials flow smoothly and protect the box.

Continued –

**Trucks and General Truck Operations – Continued;**

Dumping:

* Ensure the surface is level and not too soft or inadequately compacted;
* Use a dumpman to guide you if your view is obstructed;
* Ensure the tailgate is unlocked before attempting to dump;
* Do not dump when parked beside another vehicle;
* Ensure there is no unauthorized pedestrian traffic in the dumping area;
* Before spreading from a moving truck make sure entire length of travel is reasonably level;
* Always put box down before moving forward to ensure no hydro or telephone lines will entangle the box.

**Welding, Cutting, and Burning;**

* Work involving welding, cutting, or burning can increase the hazards associated with fires and safe breathing atmosphere on any job;
* Always ensure that adequate ventilation is supplied since hazardous fumes are created during welding, cutting or burning;
* Alert other workers to hazards of welding, cutting or burning, prior to start of work. Erect protective screens to protect other workers and restrict access from the work area;
* Always have fire fighting and prevention equipment on hand before starting work;
* Inspect the entire work area for combustible material and flammable vapours prior to starting work;
* Workers must establish a fire watch prior to starting work;
* Ensure cables and hoses are protected from slag and sparks;
* Open all valves and controls slowly and carefully;
* Never enter, weld or cut in a confined space without proper atmospheric tests and all required procedures;
* Cutting and welding is prohibited if sparks or cutting slag may fall on cylinders. Gas cylinders must be moved and protected prior to starting work;
* Only use a torch striker to light cutting torches. Never use matches or lighters to light a torch