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| **ABC COMPANY – Occupational Health and Safety Program** | | |
| **Fall Prevention – Working at Height** | | Issue date: DD/MM/YYYY  Review date: DD/MM/YYYY |
| Approved by: | Reviewed by: | |

Please note the following document is a sample. Review carefully and modify this document to meet the needs and requirements of your organization.

# 1.0 PURPOSE

**ABC Company** is committed to protecting workers from falls, whether they are caused by slips, trips and falls or fall from heights. This procedure will establish precautions, training, responsibilities, requirements and methods which are to be used by all personnel while working at heights according to section 141 of the NL OHS Regulations:

Where a worker is exposed to the hazard of falling from a work area that is

1. 3 metres or more above the nearest safe surface or water;
2. above a surface or thing that could cause injury to the worker if the worker were to fall on the surface or thing; or
3. above an open tank, pit or vat containing hazardous material.

# 2.0 DEFINITIONS

**Fall Protection:** A system designed to prevent workers from falling or to safely arrest a fall in progress.

**Fall Protection Plan**: A site-specific document outlining the hazards, controls, and procedures for preventing falls when working at heights.

**Guardrail System:** A rigid barrier consisting of a top rail, mid rail, and toe board used to prevent workers from falling from an elevated work area.

**Fall Arrest System (FAS):** A system that stops a worker's fall before they hit the ground, typically consisting of a full-body harness, lanyard, shock absorber, and an anchorage point.

**Lanyard:** A flexible line of rope, webbing, or cable used to connect a worker’s harness to an anchor point.

**Self-Retracting Device (SRD):** A type of fall arrest device that allows a worker to move freely while automatically locking in the event of a fall.

**Shock Absorber:** A component of a fall arrest system designed to reduce the force exerted on a worker during a fall.

**Rescue Plan:** A pre-planned procedure to retrieve a fallen worker in a safe and timely manner.

**Safety Net System:** A net installed below a work area to catch a falling worker and reduce injury risk.

# 3.0 RESPONSIBILITIES

**Employer:**

* Install guardrails, safety nets, temporary flooring or provide workers with a fall arrest system when there is a risk of falling 3 meters or more
* Provide workers with fall protection when there is a risk of falling onto a surface or thing that could cause injury or when working above an open tank, pit or vat that containing hazardous material
* Train workers in fall protection and ensure proper equipment is available for their use
* Ensure that workers receive training on proper use, care, inspection and, limitations of fall protection equipment
* Develop fall protection plans

**Supervisor:**

* Advise workers of any fall related hazards that they may present on worksites
* Provided with written or oral instructions regarding precautions to be taken for the protection of all workers under their supervision
* Communicate fall protection plans and hazard assessments to workers
* Ensure that workers wear their fall protection equipment

**OHS Committee, WHS Representative or Designate**

* Identify aspects in a workplace that may be unhealthy or unsafe
* Participate in workplace inspections
* May make health and safety recommendations
* Promote health and safety educational programs
* Receive complaints from workers about concerns about health and safety and maintain those records
* Perform other duties and follow procedures that may be prescribed by regulations

**Worker:**

* Inspect their fall protection equipment prior to use
* Adhere to manufacturer specifications for the safe operation of all fall protection equipment
* Report to their supervisor any fall hazard or defect in fall protection equipment of which they are aware of, and which may endanger themselves or another worker

# 4.0 TRAINING

A worker shall not use fall protection equipment unless he or she has completed the WorkplaceNL approved Fall Protection Awareness, 2-Day, training program.

All workers using fall protection equipment will complete a refresher training program at least once every three years.

**5.0 PROCEDURE**

Any task that requires an employee to be on a walking/working surface that is 3 meters or higher above a lower level is to be protected from falling to the lower level via a guardrail, safety net, or personal fall arrest system.

Any task that brings an employee close to a hole in a walking or working surface that may allow a fall to a lower level will utilize a protection device such as a cover, guardrail, or personal fall arrest system.

If a fall hazard cannot be eliminated, then a fall arrest system, utilizing one hundred percent fall protection, shall be utilized by an individual including but not limited to elevated positions 3 meters or higher where no physical protection such as guardrails exists. Good judgment is required in all situations. At heights less than 3 meters, consideration should be given to the work environment, working conditions, good footing, etc.

Prior to selecting Fall Arrest System (FAS) equipment, the user shall assess workplace conditions where the equipment is required. The assessment shall, as a minimum, identify the presence of hazards. The equipment must match the work situation and workplace environmental factors. The workplace assessment shall identify all paths of intended user movement and all fall hazards along such paths. The user shall note the location and distances to all obstructions in the potential fall paths.

## 5.1 Communication

Communication amongst all workplace parties is vital to ensure that everyone is aware of the hazards and the controls. The company’s procedure, hazard assessment, working at heights plan and rescue plans are required to be communicated to all workers. This can be completed during a toolbox meeting with all participants signing the document to indicate their participation.

## 5.2 Personal Protective Equipment (PPE)

Depending on the site hazards, appropriate PPE must be selected and worn by the worker. This will vary but can include, but not limited to, the following:

* Steel-toed footwear
* Hard hat
* Safety glasses
* Gloves
* Protective clothing
* Fall protection equipment (harness, lanyard, energy absorber)

## 5.3 Inspection and Identification of Equipment

The USER shall inspect a fall arrest system BEFORE each use.

A competent person shall inspect all fall arrest equipment, as per manufacturer instructions, on an annual basis at minimum.

## 5.4 Care, Service Life, and Storage of Equipment

When hanging a harness up, use the D-ring to put the harness on the hook. This will help to eliminate the wear and tear on the harness.

Full body harnesses, shock absorbing lanyards and lifelines subjected to drop loading from actual use shall be taken out of service and destroyed.

FAS equipment shall be kept in a clean condition and stored in a clean, dry area at normal temperature so as not to be damaged from environmental factors such as heat, light, excessive moisture, oil or other degrading elements.

## 5.5 Personal Fall Arrest Systems

A Personal Fall Arrest System is a system which attaches a person to a rigid structural member through a system of harnesses, lanyards, lifelines and tie off points to limit the fall of a worker.

Components of a fall protection system must meet applicable National Standards of Canada standards. Most of the CSA standards require that components be labeled or marked to indicate their standard of compliance. Remember to use equipment that meets these requirements. The following CSA standard numbers should be attached to or etched on components:

* Shock absorbers - CAN/CSA Z259.11
* Self-retracting devices - CAN/CSA Z259.2.2
* Descent control devices - CAN/CSA Z259.2.
* Fall arresters (rope grabs) - CAN/CSA Z259.2.1
* Vertical lifelines when sold in bulk on a reel or container - CSA Z259.2.1 on the container or reel.

## 5.6 Safety Net Systems

A safety net system utilizes a net mechanically attached to a structural member for the purpose of preventing injury by catching a falling person. Refer to theOHS regulations for safety net requirements.

## 5.7 Guardrail Systems

A guardrail system utilizes a horizontal rigid structural device along with toe-boards, webbing or mid rails to restrict personnel from a fall hazard. Guardrail systems and their use shall comply with the requirements as set out in the OHS regulations.

# 6.0 PROGRAM REVIEW

The Fall Protection Program will be reviewed at least once a year by management. This review will encompass changes in regulations, safety hazards as related to fall protection, and changes in technology.

**7.0 FALL PROTECTION PLANS**

According to NL OHS Regulations section 142(10), where a fall arrest system or a personnel safety net is used as a means of fall protection, a written fall protection plan is required. The plan must specify the procedure to assemble, maintain, inspect, use and disassemble the fall arrest system or personnel safety net as well as the procedure for the rescue of a worker who has fallen and is suspended by the fall arrest system or personnel safety net, but is unable to affect self-rescue.

Fall protection plans are site-specific, as the requirements and equipment used will change from site to site. The employer is also responsible to ensure that workers and supervisors are trained on job-specific safe work practices, plans, policies and procedures, including emergency response.

**8.0 RESCUE PROCEDURES**

When a worker falls and is suspended in a harness, it’s important to rescue him or her as quickly as possible because of the following reasons.

* The worker may have suffered injuries during the fall and may need medical attention.
* When workers are suspended in their safety harnesses for long periods, they may suffer from blood pooling in the lower body. This can lead to suspension trauma.
* Suspended workers may panic if they are not rescued quickly.
* The event that led to the fall may create additional risks that need to be addressed.

## 8.1 Training

All site personnel must attend a site-specific safety training session where they will review emergency response procedures and receive instruction on alarms and assembly areas.

Train a designated crew to perform the rescue. This crew must know how to use the equipment that is available to them at the jobsite and where they can find it. They should review the rescue procedure every two weeks with the crane crews.

## 8.2 Emergency Response Plan

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

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

## 8.3 Rescue Procedures

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

1. **Elevating Work Platform Rescue:** If an elevating work platform (EWP) is available on site and the suspended worker can be reached by the platform, follow this procedure.
2. Bring the EWP to the accident site and use it to reach the suspended worker.
3. Ensure that rescue workers are wearing full-body harnesses attached to appropriate anchors in the EWP.
4. Ensure that the EWP has the load capacity for both the rescuer(s) and the fallen worker. If the fallen worker is not conscious, two rescuers will probably be needed to safely handle the weight of the fallen worker.
5. Position the EWP platform below the worker and disconnect the worker’s lanyard when it is safe to do so. When the worker is safely on the EWP, reattach the lanyard to an appropriate anchor point on the EWP if possible.
6. Lower the worker to a safe location and administer first aid. Treat the worker for suspension trauma and any other injury.
7. Arrange transportation to hospital if required.
8. **Ladder Rescue:** If an elevating work platform is not available, use ladders to rescue the fallen worker with the procedure outlined below.
9. If the fallen worker is suspended from a lifeline, move the worker (if possible) to an area that rescuers can access safely with a ladder.
10. Set up the appropriate ladder(s) to reach the fallen worker.
11. Rig separate lifelines for rescuers to use while carrying out the rescue from the ladder(s).
12. If the fallen worker is not conscious or cannot reliably help with the rescue, at least two rescuers may be needed.
13. If the fallen worker is suspended directly from a lanyard or a lifeline, securely attach a separate lowering line to the harness.
14. Other rescuers on the ground (or closest work surface) should lower the fallen worker while the rescuer on the ladder guides the fallen worker to the ground (or work surface).
15. Once the fallen worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
16. Arrange transportation to hospital if required.
17. **Rescue from Work Area or Floor Below:** If the fallen worker is suspended near a work area and can be safely reached from the floor below or the area from which they fell, use the following procedure.
18. Ensure that rescuers are protected against falling.
19. If possible, securely attach a second line to the fallen worker’s harness to help rescuers pull the fallen worker to a safe area. You will need at least two strong workers to pull someone up to the level from which they fell.
20. Take up any slack in the retrieving line to avoid slippage.
21. Once the worker has been brought to a safe location, administer first aid and treat the person for suspension trauma and any other injury.
22. Arrange transportation to hospital if required.

**D. Basket Rescue:** If a worker has fallen and is suspended in an inaccessible area, you may need to perform a basket rescue.

For basket rescues, the basket must be designed by a professional engineer in accordance with good manufacturing processes to withstand all loads to which it may be subjected. It must be always kept on site in an accessible location where it is clear of material or other equipment. Fit the rescue basket with appropriate rigging for quick hookup by the crane operator.

Always keep the following items in the rescue basket.

1. First-aid kit
2. Three lanyards equipped with shock absorbers
3. One full-body harness
4. Tag line always attached to the basket
5. Descent controller rescue device in good working condition
6. Secondary safety line to tie the basket above the headache ball of the crane.

To perform a basket rescue, follow the steps below.

1. Make sure preferred methods A, B, and C are not possible.
2. Notify the crane operator right away to position the crane to attach the basket.
3. While the basket is being attached, the crew leader checks that all safety rigging is done, and all the required safety equipment is available.
4. With two rescuers in the basket, hoist it to a position that is above and as close as possible to the fallen worker. A designated worker on the ground guides the basket with a tag line. The designated worker must make sure that when the rescue basket reaches the right elevation, the door of the basket is facing the structural steel to provide an easy exit for rescuer #1.
5. Rescuer #1 exits the rescue basket and gets into a position to reach the fallen worker. When doing this, rescuer #1 must be always tied off to either the structure or the rescue basket.
6. Rescuer #2, who is still in the rescue basket, lowers the line that will be used to retrieve the worker. Rescuer #2 attaches an extra lanyard to the line if required.
7. Rescuer #1 assesses the fallen worker for injuries and then decides how to proceed (i.e., treat injuries first, guide the fallen worker into the rescue basket, or lower the basket to the ground with the fallen worker attached to it).
8. Once the fallen worker has been brought to a safe location, administer first aid. Treat the person for suspension trauma and any other injury.
9. Arrange transportation to hospital. A designated worker must accompany the injured worker to hospital.

If basket rescue is the method used, keep the following points in mind.

* Perform a basket rescue only when it is not possible to use conventional equipment to rescue the fallen worker in a safe manner.
* Never exceed the maximum number of workers in the basket as indicated on the nameplate.
* Ensure that a competent worker inspects the crane and equipment being used prior to lifting rescuers.
* Always equip the crane with a fail-safe mechanism to prevent the boom from descending in the event of a power source or system failure.
* Always maintain an adequate means of communication between the rescuers in the basket and the crane operator.
* Ensure that workers in the rescue basket wear full-body safety harnesses attached to a lanyard and anchored to appropriate points in the basket at all times.
* Make sure that all rigging used to attach the rescue basket to the hook of a load line has a safety factor of 10 against failure. There should be a safety line attached to the load line directly from the basket.
* Do not allow cranes to travel while rescuers are in the basket.
* Do not use suspended rescue baskets during high winds, electrical storms, snow, ice, sleet, or other adverse conditions that could affect the safety of personnel on the platform or in the basket.

## 8.4 Post-Rescue Procedure

All non-affected workers should remain in the designated safe gathering zone until the site supervisor notifies them to do otherwise.

The site supervisor and health and safety representative should:

* Begin the accident investigation.
* Quarantine all fall-arrest equipment that may have been subjected to fall fatigue effects and/or shock loading for further investigation.
* Secure the area (the OH&S Act requires that an accident scene not be disturbed where a fatal or critical injury has occurred).
* Determine whether the jobsite-specific rescue and evacuation plans were followed as designed.
* Record modifications or additions to the plans that the rescue team deems necessary.
* Record all documented communications with fire, police, Service NL, and other contractors involved.
* Record all documented statements from employees, witnesses, and others.
* Save all photographs of the incident.
* Record all key information such as dates, time, weather, general site conditions, and specific accident locales including sketches of the immediate incident area, complete with measurements if applicable.