Scuka Construction Safe Work Practices & Procedures 2026

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SCUKA CONSTRUCTION

General Policy – Safe Work Practises

Responsibilities

Management and supervisors will:

1. Adhere to the WorkSafeBC Regulations as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regard to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Accept that safety is everyone's responsibility, and a team effort must be made to maintain safe work site conditions.

Employer Responsibilities

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of these procedures.
4. To ensure that workers are kept informed regarding the hazards in their workplace.

Employee Responsibilities

1. To ensure that they perform their tasks having regard for their safety, and the safety of others.
2. To ensure that they use only safe tools, equipment, and materials to facilitate safe construction.
3. To familiarize themselves with safe work practices pertaining to their tasks.
4. To report to supervisors when they become aware of hazards in the workplace.

The following PPE is required by all workers while working on an active construction site:

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat in good repair with no modifications.
3. Hi visibility vest or Hi visibility straps
4. Adequate clothing to protect from routine hazards on site.

Additional PPE may be required in the form of:

1. Respiratory equipment
2. Rubber gloves
3. Hearing protection
4. Eye protection
5. Other PPE called for in the applicable MSDS
6. Check with your supervisor for additional PPE requirements.

Training

Workers must be trained prior to commencing work on the procedures detailed below.

Proof of training is required and must be readily available.

Safe Work Procedures

To ensure an accident free environment, it is essential that workers know and recognize the various aspects of his/her job that are critical to safe job performance. Accordingly, Job Safety Procedures have been and will be developed and maintained as part of our Occupational Health and Safety Program.

These procedures shall be reviewed as part of our annual review of the Occupational Safety and Health Program, or more often as required by changes in equipment, tools or work processes.

Because of the diversity and complexity of our Industry, a program of General Job Procedures as well as Specific Job Procedures must be developed in order to provide for both the general requirements of the work force and the specific requirements of Projects.

While care has been taken in the preparation of this manual, there are times where changes in regulations, or changes in engineering or processes may have occurred. In such cases, these procedures must be read in concert with those revisions.

Angle Grinder

Safe Work Practise

An angle grinder is a versatile cutting tool used in many tasks in construction. The Safe Work Practice includes the following Do's and Don'ts.

DO'S

- Read, understand and follow the manufacturer's manual for the safe use of grinder wheel guards.
- Guards must be provided and appropriately adjusted as per the manufacturer's manual. Replace damaged guards because if an abrasive wheel breaks while rotating, it can cause a severe injury.
- Before use, check the manufacturer's stated running speeds or markings on the grinder and grinder wheel for the maximum speed that it can be used.
- Clean and service grinders according to manufacturers' recommendations. Record all maintenance for grinders.
- Ensure that a machine will not operate when unattended by checking the dead-man (constant pressure) switch.
- Wear safety glasses or goggles or a face shield (with safety glasses or goggles) to protect against flying particles.
- Use both hands when holding the grinder.
- Keep the power cord away from the grinding wheel and the material being ground.
- Fill out and submit a hot work permit before use when needed.
- Ensure the work area is clear of flammable materials and that combustible dust is not allowed to accumulate.
- Ensure the floor around the work area is clean.

DONT'S

- Use grinders near flammable materials.
- Clamp portable grinders in a vice for grinding hand-held work.
- Use any liquid coolants with portable grinders.
- Force wheels onto a grinder that is the wrong size or change mounting hole sizes.
- Tighten the mounting nut excessively.
- Put the grinder on the floor or working surface until the wheel has stopped turning.
- Use a wheel with a maximum RPM that is lower than the RPM rating of the grinder.
- Keep any materials close to the grinding wheel.
- Wear loose clothing or dangling jewellery as they may get caught in the grinder's moving parts. If you have long hair, keep it tied back.
- Use wheels that are cracked or excessively vibrate.
- Operate grinder on wet floors.

Hazards

The hazards to be aware of when using an angle grinder include moving and sharp blades, kickbacks, sparks and projectiles.

Control Measures

Elimination	Is there a way to change the task so using a grinder is no longer needed?
Substitution	Can I use a different tool that is safer for this task?
Engineering	Ensure no other workers are in the area when the task is being performed.
Administration	Train all Scuka employees and subcontractors to find and use the Safe Work Practice and Safe Job Procedures. Ensure all inspections are being performed and tag out all broken tools.
Personal Protective Equipment	Gloves, aprons, safety glasses, face shields, CSA-approved safety boots, hearing protection, and respiratory protection may be required, depending on the work.

Safe Job Procedure

1. Perform an inspection of the tool and check for apparent damage, inspect the disks for cracks, damage or anything that would make the disk break apart during use.
2. Tag out the tool and report all deficiencies to a Scuka Supervisor.
3. Check that the tool a proper guard on and is in good repair.
4. Accessories and or disks must be rated for the RPMs for that tool. **Very important!**
5. Clean the work area to ensure enough room to perform your task safely.
6. Keep your cutting blade away from obstructions, cords, yourself and other workers.
7. Keep loose clothing and jewelry contained and away from rotating parts.
8. Be sure that the trigger lock is off before turning the tool off.
9. Wait for the tool to stop completely before continuing with your task.
10. This tool requires both hands to operate and a good steady work stance.
11. Lockout and unplug the tool from the power source before trying to change the blade.
12. See manufacturer's operating manual when installing or removing grinding wheel.
13. For training and demonstration, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.

Asbestos

Task
Demolition or renovation of existing structures built prior to 1990.

Scope
Scuka Enterprises has a duty to protect all workers on their sites from exposure to asbestos. Scuka Enterprises is also responsible for protecting the public from exposure to asbestos contaminated air that originated on their worksites. Asbestos exposure has been responsible for the deaths of many workers. Asbestos was used prior to 1990 in many building products including roof felt, shingles, acoustic tiles, pipe insulation and tape, textured or stipple coated walls and ceilings, window putty, vinyl tiles and linoleum sheet flooring, flooring adhesive, fireplace and stove components, stucco, drywall, drywall mud, insulation material and many other products. WorksafeBC operates on a zero tolerance basis when it comes to violations of the regulations pertaining to asbestos. A first time violation can be expected to result in a significant penalty.

Health Hazards
Asbestos is an extremely hazardous material. Its fibres are extremely fine and can float in the air for hours after having been disturbed. These fibres are so small that they are often invisible to the eye. Persons exposed to asbestos can develop a chronic condition known as asbestosis. The fibres that have been inhaled over time cause scarring in the lungs and breathing becomes increasingly difficult. Additionally, asbestos exposure has been linked to various forms of cancer. Exposure to asbestos is ranked as the #1 workplace killer in Canada. It is estimated that 70% of accepted occupational death claims in Canada involved asbestos.

Procedure
Asbestos control and removal is a specialized task. WorksafeBC Regulations at section 6 set out the steps to be taken when dealing with materials that potentially contain asbestos. As the Prime Contractor we must:

1. Identify buildings or homes that are likely to contain asbestos. This will generally include any structures built prior to 1990. If you cannot be relatively certain as to the construction date presume that it was built prior to 1990.
2. Have a qualified person collect samples of the potentially asbestos containing materials. This is often referred to as an asbestos survey. A “qualified person” is defined in the regulations. They must be able to provide proof of their training and experience. They must also have access to a laboratory that is able to analyze the samples.
3. Receive the report of the “qualified person”. If that report identifies materials containing asbestos it should also specifically identify which materials are expected to contain asbestos (the inventory). That report should also contain a risk assessment to determine worker exposure and work classifications.

4. If asbestos is identified share a copy of the inventory with the owner of the project. A copy of the inventory must be maintained on site. That inventory must be updated if there are any changes.
5. If asbestos is identified secure the services of an Asbestos Abatement Contractor.
6. No work to remediate any asbestos identified is to begin until a Notice of Project (Asbestos) has been filed by the Asbestos Abatement Contractor. This is not the same as the Notice of Project filed by Scuka Enterprises at the start of the job.
7. Obtain a copy of the exposure control plan prepared by the Asbestos Abatement Contractor. As the Prime Contractor Scuka Enterprises has a duty to monitor the work of the asbestos abatement contractor to ensure that they are complying with their exposure control plan. The exposure control plan must be posted on site.
8. Obtain copies of documents certifying that the workers of the Asbestos Abatement Contractor have received training on the dangers of asbestos, how to identify asbestos, the work procedures to be followed, the correct use of PPE for the task, and the purpose or significance of health monitoring. These documents should be posted on site.
9. Monitor the work of the Asbestos Abatement Contractor on an ongoing basis to be certain that materials are being contained in the abatement area and are not escaping into the air. Materials removed should be double bagged and taped shut and tagged as containing asbestos.
10. Monitor the work of the Asbestos Abatement Contractor to make sure they are controlling access to the asbestos containing area and posting appropriate signage.
11. Receive, review and retain a Hazardous Materials (asbestos) Clearance document. This can be provided by the Asbestos Abatement Contractor or from the qualified person who did the building survey. It must include:
    a. The date the clearance was conducted.
    b. The address of the project.
    c. The name of the abatement contractor.
    d. A description of the scope of work that was performed.
    e. The Notice of Project number for the asbestos work.
    f. Waste manifest documentation.
    g. The results of air clearance sampling, and the name and signature of the person who collected the samples.
    h. A reference to the hazardous materials inspection report (including the name of the company, and when the survey was conducted.
    i. The name of the qualified person who performed the final visual inspection.
    j. A statement indicated that the abatement was conducted in accordance with the regulatory requirements, and that the asbestos was safety removed.

Procedure Where Exposure Has Occurred or Work Has Already Started

1. Stop work. If a possible asbestos contaminated substance that was not known of before is discovered on site stop work immediately. Make sure no workers are doing anything that will tend to disturb the material and create asbestos dust.
2. Do not start cleaning up the substance as this may release even more asbestos into the air.

3. Asbestos exposure is cumulative. It is unlikely that a single short exposure will have significant effect. However, multiple short-term exposures add up. Unless you're experiencing breathing problems you are probably okay, but don't keep testing it out.
4. Contact a qualified person to have an asbestos survey done.

Bloodborne Pathogens

Safe Work Practice

Bloodborne diseases are caused by pathogenic microorganisms, which exist in blood and other body fluids. There are many different bloodborne pathogens, including malaria, syphilis, and brucellosis, and most notably Hepatitis B (HBV), Hepatitis C (HCV) and the Human Immunodeficiency Virus (HIV). The Safe Work Practice includes the Do's and Don't's when cleaning up blood and body fluids after an injury.

Do's

- Wear the required PPE to ensure no contact with blood or body fluids.
- Isolate the area to avoid exposing other workers.
- Wear gloves and use disposable towels or other means of cleaning (e.g., brooms or shovels) that will stop direct contact between you and the blood or body fluids.
- Decontaminate the area with an approved disinfecting agent or a 1:100 solution of household bleach (dilute 1 part bleach with 99 parts water).
- Once the cleanup is finished, all tools or equipment used should be washed and disinfected.
- Throw out all soiled cleaning materials in a leak-proof plastic bag. Throw out this bag according to local or public health regulations for the disposal of infectious waste.
- Wash hands thoroughly with warm water and soap after removing gloves.
- Change gloves after each task or exposure.
- Dispose of your used gloves as you would for contaminated materials.
- Read and understand Safety Data Sheets from all cleaners being used on the Jobsite.
- Ask your supervisor for training to be able to understand potential hazards and be familiar with regulations.

Dont's

- Clean up blood and body fluids unless you have been trained to do so.
- Eat, drink, or smoke while using bleaches, cleaning agents, disinfecting agents, or other chemical products.
- Leave open containers of bleaches, chemical products, disinfecting agents, and solvents in the washrooms or other areas used by other staff, students, visitors or other members of the public.
- Do not mix cleaners and disinfectants unless the labels say it is safe to do so. Mixing products (such as chlorine bleach and ammonia cleaners) can create poisonous substances that can cause serious injury.

Hazards

The hazards to be aware of include many different bloodborne pathogens, including malaria, syphilis, and brucellosis, and most notably Hepatitis B (HBV), Hepatitis C (HCV) and Human Immunodeficiency Virus (HIV).

Control Measures

Elimination	• Implement injury prevention strategies.
Substitution	• Not applicable
Engineering	• Ensure all safety precautions are being implemented with tools, equipment and housekeeping practices. • All Scuka employees are trained in First Aid.
Administration	• Train all Scuka employees and subcontractors to find and use the Safe Work Practice and Safe Job Procedures.
Personal Protective Equipment	• Gloves, aprons, safety glasses, face shields, CSA-approved safety boots, and protective clothing.

Safe Job Procedure

1. Isolate the area by setting up a control zone.
2. Wear the appropriate PPE, including disposable, waterproof gloves (natural rubber latex, neoprene, nitrile, and vinyl). If necessary, wear other PPE, such as a face shield and a gown, to act as a barrier against contact with blood and certain body fluids and the diluted bleach solution. If using a germicide, check the Safety Data Sheet (SDS) to determine what type of glove to use.
3. Use biohazard bags to remove the contaminated items from the spill site. Have fresh, diluted bleach or germicide ready.
4. Dispose of any sharps first.
5. Cover your shoes or boots with disposable, waterproof covers if they could become contaminated during cleanup. The use of rubber boots is also acceptable.
6. Wipe up visible material first with disposable towels (or in another way that prevents direct contact with blood and certain body fluids).
7. Dispose of the material and paper towels in biohazard bags.
8. After you have carefully removed all the apparent material, it may be necessary to change gloves.
9. Disinfect the area by carefully pouring over the spill site with a germicide approved for use as a Sani Spary or a fresh solution of household bleach and water as follows: A solution

of 1 part of common household bleach to 100 parts of water (1:100 ratio) will kill HIV and the hepatitis B and C viruses except with spills involving a large amount of blood.

10. With spills involving a large amount of blood, apply a solution of 1 part common household bleach to 10 parts of water (1:10 ratio). In both cases, leave the solution on for about 10 minutes.
11. Clean and decontaminate all soiled, reusable equipment and supplies. Properly discard any disposable items.
12. Wear gloves to remove other protective equipment such as face shields and footwear covers. According to the manufacturer's directions, dispose of or clean PPE (for example, face shields, aprons, boot covers).
13. Properly remove and dispose of your gloves. Wash your hands.
14. Call Scuka CSO for disposing of Biohazard bags.

Exposure Procedure

A worker who is exposed to potentially infected blood or body fluids should perform the following steps:

1. **Report to first aid for treatment and report injury and location of potential exposure.**
   - If the eyes, nose, or mouth have been exposed, flush with clean water until thoroughly cleaned.
   - If exposed through a sharps injury or needle prick, allow bleeding freely to occur.
   - If the skin is broken, wash with soap and water.
2. **Report the injury and exposure to a Scuka Supervisor.**
   - Report the nature of the injury and exposure to the Site Safety Officer or First Aid Attendant.
   - Do not delay and put other workers at risk of exposure.
3. **Seek medical attention**.
   - Go to the hospital within two hours of exposure.
   - Immunizations and medication are essential to alter the course of the disease and prevent infection.
   - Blood tests are performed within the next five days.
   - Counselling and medications are available and recommended to promote a safe recovery.

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Concrete Cutting

Safe Work Procedure

Preliminary Activities

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work. Other trades must not be exposed to silica dust created by the activity.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

Procedures for Working Safely

1. Use one of the dust control methods described by the grinder manufacturer
2. Inspect the dust control equipment before you start work and report any problem to your supervisor
3. Make sure that the dust control system is minimizing the release of dust – very little dust should be released when these methods are working properly
4. Follow safe work procedures when cleaning and/or maintaining the equipment
5. Vacuum (HEPA filtered) or set wipe settled dust from equipment, work, and other surfaces when the work is completed
6. Always wear an approved respirator when working around silica dust (the type chosen will depend on the cutting method and dust controls used)
7. Always wear approved safety classes when cutting concrete

Concrete Planer Procedure

Personal Protective Equipment: Hard Hat, Safety Glasses, Face Shield, Hearing Protection and Silica Protection.

Safe Work Procedure

1. Check for obvious damage on the tool and maintain our tools.
2. Have a clear and clean work area. Keeping your cutting blade away from obstructions, yourself and other workers.
3. Keep all lose clothing and jewelry contained and away from rotating parts.
4. Silica protection is a must either a vacuum attachment or other means. Refer to the Silica safe work practices procedures.
5. Be sure that the trigger lock is off before you plug the tool in, and all safety features are attached.
6. This tool requires both hands to operate and a good steady work stance.
7. Know your surroundings don't make a hazard for another worker
8. Lock out the tool before trying to change the blade. Unplug the tool from the power source.
9. Installing or removing diamond wheel, refer to manufacturer's instructions.
10. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
11. Should the tool be malfunctioning in any way remove from service and tag out.

Concrete Pour – Suspended Slab Procedure

General Information

This particular safe work practise and procedure will apply almost entirely to the Superintendent. As a Scuka Superintendent you are most likely to encounter suspended slabs as part of a parkade structure. The greatest concern during and in the hours immediately after the pour of a suspended slab is the potential for collapse of the formwork. The design of formwork and shoring to construct a suspended slab is done by an engineer who will provide sealed drawings. It is essential that these drawings be available on site. It is also essential that steps be taken to confirm that these drawings have been followed. It is not enough to rely entirely on the engineer at the pre-pour inspection. Lastly, if your efforts were not documented, they didn't happen.

Personal Protective Equipment: Hard Hat, Safety Glasses, High Vis Vest, Hearing Protection where needed.

Safe Work Procedure

1. As part of meeting the formwork contractor inquire as to their experience doing jobs of this size, and in particular inquire as to their experience doing suspended slabs.
2. Familiarize yourself generally with the engineered drawings for the formwork and shoring.
3. As the job progresses confirm that a qualified foreman is monitoring and managing the forming and placement of shoring.
4. Confirm from time to time generally the placement of the shoring, the quality of the forming materials, and the type of shoring being used. In particular, check the drawings to determine what type of posts are to be used for shoring, and confirm that the specified posts are in fact being used.
5. Prior to the pour it is necessary to have an engineer inspect the forming. It would be helpful to have someone accompany the engineer during this inspection. It would also be helpful if that person could make inquiries as to what the engineer is checking for. This inspection should be documented.
6. Following the inspection, it is the responsibility of the General Contractor to ensure that no modifications are made to the forming or shoring. It may be appropriate to arrange for on-site security personnel.
7. On the day of the pour, the area below the slab to be poured should be inspected again by the Superintendent or a worker very experienced with forming for suspended slabs.
8. On the day of the pour take steps to restrict access underneath the slab. It is essential that no workers go under the slab during the course of the pour. As well, workers shall under no circumstances go under the slab until the day following the pour until it has been confirmed:

a. There is no active work or loading occurring on the slab above.
b. No loose materials or equipment is on the slab above.
c. The formwork and shoring remains and appears stable and undisturbed.[1]

Review this requirement as part of your pre-pour meeting.

9. As part of the pre-pour meeting with slab workers, caution them about the dangers posed by the boom of the pump truck[2]. They should specifically be instructed not to be under it if they don't have to.
10. When the pump truck arrives, check with the operator and ask to see his ticket. Operators of pump trucks are required in BC to be ticketed. Confirm with the operator that they are satisfied with the setup location. Assess the ground used for setup carefully. If there is any concern about subsidence this must be addressed.
11. During the pour, monitor the condition of the pump truck. Confirm that outriggers are firmly grounded. Monitor the ground for changes. Monitor any nearby slopes for signs of subsidence.[3]
12. During the pour, monitor workers. Where possible they should not be underneath the boom. Workers placing concrete should be wearing safety glasses.
13. Following the pour, maintain the access restriction so that workers are not going underneath the slab. This cannot be stressed enough.
14. Following the pour instruct all workers not to do any stripping activity until they are specifically instructed by the Superintendent to do so.
15. Follow the Issued for Construction specifications when re-shoring.

Safe Work Practices

a) As noted above, access under the slab during the pour and in the intervening period after the pour until the above noted requirements are satisfied amounts to exposing a worker to a life threatening environment. It is not open to the Superintendent to take this on themselves. The Superintendent is a worker too. Failing to maintain the access restriction may lead to termination of employment.
b) Sometimes it is necessary to supply heat to the area beneath the slab to be poured. Where possible heaters should be positioned outside of the structure and the heat should be ducted inside. This allows problems with the heaters to be addressed without going under the slab.
c) Where possible, use a remote thermometer to monitor the temperature underneath the slab. If a remote thermometer is not available place thermometers where they can be seen without entering the structure.

[1] While everyone in construction has their own opinion on this matter, we have specifically inquired of a respected engineer in the field. These directions are accepted by Scuka Management as being the last word on the matter.
[2] There have been multiple instances of pump trucks falling over or booms dropping in BC. When this has occurred, there are usually deaths and catastrophic injuries.
[3] Ibid.

Confined Space SJP/SWP

General Information

Many workers are injured and killed each year while working in confined spaces. An estimated 60% of the fatalities have been among the would-be rescuers who rush in to assist the downed worker. A confined space can be deadly in seconds.

Workers involved in confined space entry will:

- Be familiar with the Work-safe B.C. Regulations regarding confined spaces
- Understand the criteria for confined space
- Be able to identify confined spaces
- Understand how to perform hazard identification and risk assessments
- Be prepared to refuse the work if any areas of concern have not been addressed.
- Ensure all safety precautions are in place prior to entry.

Purpose

This document outlines the necessary steps to ensure the Health & Safety of all workers that work in a confined spaces. This includes the responsibilities of all parties involved in this work process. To ensure safe confined space entry, workers must create a plan that uses effective hazard identification, preparation, authorization and communication. This must be maintained throughout the task.

Personal Protection Equipment

Workers must wear:

- Wear the basic PPE required on all Scuka Sites. Hard hat, high vis vests and CSA footwear.
- Wear the specialized PPE needed to perform the task safely such as a full body harness, respirator and gloves.

Workers must have in place appropriate rescue mechanisms, such as a tripod.

Hazards

Anything, by its nature that will or may, endanger the safety or health of a workers. Hazards may include;

- Toxic vapours, mists, or dusts from work process.
- Explosive atmospheres from gas build up.
- Lack of oxygen, causing asphyxiation.
- Electrical shock from powered tools or lights.
- Physical hazards such as slipping or falling.
- Entering a confined space without testing the atmosphere.
- Leaking, cutting, welding hoses inside the confined space.

- Improper use, or not using, Personnel Protective Equipment.
- Temperature extremes.
- Noise.
- Insufficient rescue equipment or procedures.
- Not following confined space entry procedures

Pre-Entry Procedure

1. Ensure that all operators have certification and training including fall protection training and confined space training.
2. Ensure that all safety equipment is present and in good working condition prior to starting the project. This shall include a test of the communication systems.
3. Ensure the atmospheric testing device is charged, calibrated, bump tested and fully functional prior to entry.
4. Ensure all required permits are compete, are reviewed and signed by workers.
5. Attend a safety meeting to discuss the entry/egress, job process and rescue procedures.
6. Where WHMIS controlled product(s) are to be introduced into the space, ensure that appropriate SDS (Safety Data Sheets) are available on site, and that all affected workers are knowledgeable in the safe handling and preventative measures regarding the product(s). Review all SDS's to ensure understanding of safe handling, ppe requirements and first aid measures.

Procedures

1. The pre-entry and risk assessment is completed by workers just prior to entering the space using the Confined Space Entry Permit. This assessment is done to identify any changes that may have taken place in the confined space since the initial assessment and since the last entry. It considers the type of work to be done and any equipment or materials that will be used in the space during the entry.
2. Identifying the work area as a confined space
3. Conduct a hazard assessment of the confined space.
4. Test the environment and record findings on the Permit Provided.
5. Prepare the confined space for entry by ventilating the space if there are hazardous atmosphere toxins, lack of oxygen or oxygen enriched environment. Note; Oxygen content must be between 19.5% and 23.5%.
6. Complete a Permit which that will put into action: Gas tests, Safety Procedures Sign off , Equipment to be used, Ventilation requirements, Personnel Protective Equipment, Potential hazards, Description of work, Lockout required, Safety watch required, Communication system to be used, Rescue equipment and personnel in-place, Duration of confined work, Date and time of entry, Names of all workers entering the confined space, Signature of qualified, Safety watch and the signature of a qualified worker.
7. Mechanically ventilate the confined space for 10 minutes prior to and during entry
8. Once all criteria on the Permit has been completed, the worker(s) can enter the confined space.
9. Continuously monitor the atmosphere while in the confined space
10. Immediately vacate the confined space when the testing device indicates that a harmful atmosphere is developing or when the gas detection unit sounds off.

11. Once the confined space work has been completed, the monitor will confirm that all workers, tools and equipment have been removed.
12. The site safety issuer will then sign-off on the permit, confirming that this confined space work has been completed.
13. All completed documentation will be filed and kept on site for the duration of the project.

Confined Space Emergency Response Procedure

Confined space work has a deadly history. WorksafeBC advises that some estimates indicate that there are more than 100 confined space related deaths in Canada each year. There have been numerous multi-person fatalities that have occurred when other workers enter the space to effect a rescue. Workers shall only enter a confined space when arrangements have been made to safely extract them without necessitating other workers also entering the space. In most cases this will mean:

1. A rescue tripod will be placed at the confined space entrance. That tripod shall have its weight rating indicated on the structure and be rated for at least 30% beyond the weight of the worker entering the confined space as well as any tools or other materials that may be attached to the worker.
2. The tripod shall be equipped with a winch system sufficient to allow the monitoring worker to winch the entry worker out of the confined space.
3. The entry worker shall wear a harness of a type that will allow extraction from the confined space using the tripod winch.
4. The worker acting as monitor shall at all times have the entry worker in sight or be in actual communication with that worker.
5. The worker acting as monitor worker shall at all times have in their possession some means of contacting others on site, such as a site radio or cellular telephone. This method must allow raising the alarm without leaving the position of observation of the entry worker.
6. In the event that the entry worker is overcome by fumes within the confined space and becomes unresponsive, the monitoring worker shall immediately winch the entry worker out of the confined space. Once the entry worker is safety out of the confined space the monitoring worker shall immediately raise the alarm to summon additional assistance including first aid assistance.
7. In the event that the entry worker becomes injured, the monitoring worker shall immediately winch the entry worker out of the confined space if this can safety be done without further injuring the entry worker. If this cannot safety be done without additional injury to the entry worker the monitoring worker shall raise the alarm to summon additional assistance.
8. Under no circumstances is the monitoring worker to enter the confined space.

Cordless Framing Nail Gun Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection.

Safe Work Procedure

1. Check for obvious damage on the tool.
2. Maintain the tool as directed by the manufacturer. Do not use oils or sprays unless expressly recommended by the manufacturer.
3. Confirm that you are wearing the appropriate PPE. It is highly recommended that you wear safety glasses when you are operating a framing nailer.
4. Load a charged battery into the cordless nailer. **See manufacturer's operating manual.**
5. To load the nails, pull the follower handle back to the rear lock position until the button pops out. Insert a strip of nails and release the follower by pushing on the button.
6. Have a good steady work platform.
7. Make sure no one is directly in your line of fire and **never** fire the nailer towards yourself.
8. **Hand placement is very important.** Keep your free hand back at least double the length of the fastener when nailing wall plates to studs.
9. Make sure your framing nailer is level and pointing straight at your material. Have a firm grip on it as it will recoil when you fire a nail.
10. Make sure you understand whether the nailer is set for sequential or bump firing mode.
11. If the nailer is set for sequential firing mode, make contact with the framing nailer and the material you want to nail. The safety tip on the nailer will depress. You may now squeeze the trigger to fire the nail. Sequential firing mode is safer.
12. If the nailer is set for bump fire mode, you pull the trigger and apply the safety tip to the item you with to nail. You may continue to have the trigger pulled, and move the nailer along your material bumping the safety tip. A nail will fire each time. Bump firing mode is faster, but less safe. It is more suitable to fastening horizontal materials, such a flooring or roofing.
13. If anything is unclear or you have questions, please ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
14. Should the tool be malfunctioning in any way remove it immediately from service and tag it out.

Demolition Procedure and Practices

Purpose

The purpose of Safe Work Practices addressing demolition is to identify potential risks to employees and set out the steps that are essential before and during demolition. Demolition has potential negative impacts (including physical hazards, as well as chemical and biological hazards) on workers, as well as the public in the surrounding community. Scuka Enterprises has an obligation to protect workers and the public from these risks. This Safe Work Practise should be read together with the Safe Work Practice for Asbestos.

Before Work Begins - Procedure

1. Make arrangements to have a qualified person[4] inspect the building and worksite to identify hazardous materials if any[5].
2. Obtain written reports from the qualified person confirming the presence or absence of any hazardous materials.
3. Complete the steps identified in the WorksafeBC Regulations at part 20 to confirm removal of the hazardous materials and obtain the required reports confirming this is complete. These steps are in part referenced in the Scuka Asbestos Safe Work Procedures. Reference must also be had to the WorksafeBC regulations. These reports must be available on site.
4. Contact service providers (electrical, gas, water) to ensure that services are turned off prior to beginning work. Where there is limited demolition occurring, for example the removal of some walls, it may be that not all services will be turned off. If this is the case, make sure that crew members are aware of the location of gas, electrical and water shut-offs.
5. Assess the structure that you are demolishing. If the job entails potentially compromising the structure that you are working on, or any adjoining structure, you must obtain a design and schedule for the demolition as approved by a professional engineer. Compromise of an adjacent property, no matter how accidental, will have significant financial impact.
6. Make arrangements for waste removal – have bins and garbage cans on site and ready to go.
7. If glass is a hazard to workers or the public, it must be removed before demolition starts. Removal must occur in an orderly way from top to bottom.
8. Review a plan for the crew. Where multiple floors are being demolished start at the top of the building.

[4] “Qualified” is defined by WorksafeBC as being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience or a combination thereof.
[5] WorksafeBC Regulations section 20.112

After Work Begins - Practices

a. Wear appropriate PPE: Hardhat, Safety Vest, CSA approved boots, CSA approved safety glasses where warranted, Gloves where warranted, and a Respirator where conditions are dusty.
b. Take down the structure in stages, having regard for the impact your work has on other crews.
c. Clean up materials as you go. Do not allow material to accumulate, particularly in areas workers are walking in. Materials must not block stairs, doorways or hallways. Stack materials in an orderly manner and have an ongoing plan and procedure to have them removed.
d. Stairways, with handrails in place, must be maintained until access to that level is no longer required.
e. Where railings are removed there must be precautions in place so that no one will fall off an exposed edge.
f. Where holes are created in the floor, due to removal of staircases or other infrastructure, those holes must be securely covered. Laying a sheet of plywood over a hole without securing it is not sufficient.[6] Larger holes should be covered by a sheet of plywood or sufficient grade to hold twice the weight of expected workers and their tools. That plywood should be nailed or screwed down and should be marked with the word “Hole”. Ideally covers such as these will also have the edges marked with fluorescent paint to reduce the tripping hazard.
g. Work in small crews so that you’re all aware of what the other guy is doing. Spread the crews out so that they are not walking into the work area of others.
h. Block off work areas to prevent other workers or members of the public from entering.
i. Take proper steps to stabilize structures as they are dismantled to prevent collapses. Damage to people or property will result in significant impacts.
j. Where material is to be dropped from upper floors the area the material will fall into must be barricaded to stop entry by workers and be fully signed. Where material may fall more than 20 feet chutes must be used.[7]
k. Be alert to the possible presence of hazardous materials such as lead, asbestos, toxic, or flammable materials. If you encounter anything like this stop work immediately and notify your supervisor.

[6] A very common accident in construction occurs when a worker doing cleanup on a roof picks up a sheet of plywood and then steps into the hole the plywood was covering. This has caused many deaths and serious injuries.
[7] WorksafeBC Regulation 20.10

Drills- Corded and Cordless

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection.

Safe Job Procedure

1. Check for obvious damage on the tool, and the cord or batteries. Maintain the tool as specified by the manufacturer.
2. Put a charged battery in the drill or plug it in.
3. Make sure you have the right bit for the material you want to drill.
4. To install or remove a driver bit or drill bit, make sure that the tool is turned off, and remove the battery. If the tool is corded unplug it. Where the tool has a chuck turn the chuck so as to open the chuck jaws. Remove or install the bit as necessary. Where the tool does not have a chuck depress the locking collar as necessary to free the bit and reinstall as necessary. **See manufacturer's operating manual.**
5. Contain all loose clothing or jewelry away from rotating equipment.
6. Have a good steady work platform, with a clean work area. Don't overreach.
7. Hold the tool firmly and in a well-balanced position against the work surface.
8. Pull the trigger and begin your work
9. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
10. Should the tool be malfunctioning in any way remove it from service and tag it out.

Drills - Hammer Drills Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection and Silica Protection

Safe Job Procedure

1. Check for obvious damage on the tool and the cord or batteries. Maintain the tool as specified by the manufacturer.
2. Put a charged battery in the drill or plug it in.
3. Make sure you have the right bit for the material you will working with.
4. To install or remove a driver bit or drill bit, make sure that the tool is turned off, and remove the battery. If the tool is corded unplug it. Where the tool has a chuck turn the chuck so as to open the chuck jaws. Remove or install the bit as necessary. Where the tool does not have a chuck depress the locking collar as necessary to free the bit and reinstall as necessary. **See manufacturer's operating manual.**
5. Using the selector lever choose the right application be it hammer drill, drill or chisel. Also select the speed on the variable speed dial for your job.
6. Keep all lose clothing and jewelry contained and away from rotating parts.
7. Have a good balanced body position. Position yourself to avoid being caught between the tool and walls or posts should the drill bit become pinched or stuck the rotating forces will be transferred to the tool.
8. Know your surroundings so that you don't create a hazard for someone else.
9. Keep one hand on the trigger and always one hand on the side handle or the tool for maximum control while the tool is operating.
10. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
11. Should the tool be malfunctioning in any way remove it from service and tag it out.

Driving

Safe Work Practice

Scuka Enterprises Ltd. recognizes that unsafe driving practices can cause severe injury and death.

DO'S

When driving Scuka company vehicles do follow these safe driving practises:

- Abide by all regulations in the Motor Vehicle Act and comply with all traffic laws.
- Perform a pre-trip inspection, fuel up and check fluid levels.
- Perform a 'Walk around to look for hazards and obstructions.
- Check the weather and road conditions.
- Change route in extreme weather and for highway closures.
- Bring snacks, water and a first aid kit.
- Take the vehicle for maintenance and oil changes.
- Report all deficiencies with the company vehicle to Head Office.
- Drive defensively and to the conditions.
- Be aware of motorcycles, cycling and pedestrians.
- Check mirrors and shoulder check when backing up.

DON'T'S

When driving a Scuka vehicle, do not put yourself and the public at risk by:

- Speeding and improper passing.
- Talking on your cell phone or texting.
- Rolling through a stop sign or other traffic control device.
- Failing to yield.
- Following too closely and tailgating.
- Not stopping for pedestrians.
- Crowding bike lanes and cyclists.
- Ignoring maintenance and cleaning.
- Overloading with heavy materials and tools.

Hazards

There are many hazards when driving in the city and on the highway:

- Other drivers, types of vehicles, heavy traffic, construction zones and train crossings
- Driver behaviour; distracted, tired, road rage and impaired.
- Wildlife, pets and livestock.
- Motorcycles, cyclists and pedestrians.
- Traffic patterns, road congestion and truck traffic.
- Distracted driving; cells phones, radio, eating, passengers, or lost.
- Motor vehicle accidents.

- Mechanical issues and break downs.
- Weather; wet, rain, puddles, cold, snow, ice, dust, glare and heat.
- Extreme conditions; wildfires, avalanches, thunder and lightning, wind storm, heavy rain and flooding.

Control Measures

Elimination	• Change travel plans and stay home.
Substitution	• Use zoom, email, phone for contact. • Delay travel until the weather improves, and highways are open.
Engineering	• Read, understand and implement Driving Safe Work Practice and Safe Job Procedure. • Ensure Scuka employees has a clean driving record. • Ensure your vehicle is well maintained and full of fuel. • Ensure jack, spare tire, first aid kit, food and water. • Plan to use safer routes and to travel at safer times.
Administration	• If working alone, use a cellular phone or have another way to stay in regular contact with your Supervisor. • Take breaks and stretch to avoid musculoskeletal pain or injury from sitting for long periods and physically awkward positions. • Do not use or consume alcohol or other substances (including prescription medications) that may impair driving skills. Do not use stimulants to fight fatigue. • Keep equipment and vehicles in good mechanical condition and working order. • Perform a walk-around and check your vehicle before each use. • Set up the driver's seat to suit your body best. • Set up devices such as cellular phones and GPS to operate hands-free. • Drive defensively in winter conditions such as ice and snow, or avoid driving if it is not safe. • Clean regularly and keep all areas clear of clutter and equipment, including the interior of the vehicle. Items should be stored securely.

Personal Protective Equipment **Safety Equipment**	• Use correct personal protective equipment and clothing, including safety footwear. Personal protective clothing includes high-visibility (HV) clothing. • Fire extinguishers. • First aid kit. • Spare clothes. • Food and water. • Cell phone.

Safe Job Procedure

1. Check the weather and plan your route considering road closures.
2. Ensure the driver has a valid class 5 or 7 licence.
3. Walk around the vehicle to look for hazards and mechanical deficiencies.
4. Get into the vehicle and set your mirrors and seat for optimal vision and comfort. Put on your seatbelt.
5. Record your kilometres onto the Scuka Mileage Form.
6. Check mirrors before backing up.
7. Use the signalling light indicator to alert other drivers of your intentions.
8. Follow all speed limits and traffic devices while driving.
9. Pullover, stretch and walk to ensure ergonomic practices.
10. Stay alert and drive defensively.
11. Pullover to make phone calls, text messages and emails without hands-free devices.
12. Drive to the conditions of the road. Slow down when encountering weather such as wet, rain, puddles, cold, snow, ice, dust, glare and heat.
13. Change routes and travel plans when encountering extreme conditions wildfires, avalanches, thunder/ lightning, wind storm, heavy rain and flooding.
14. Do not offer rides to hitchhikers or strangers.
15. Use good judgment and understand the basic recovery skills appropriate to the vehicle you are driving.
16. Ensure all doors are locked when parked.
17. Use a parking brake when parking on a hill.
18. Record mileage when you have arrived at your destination.
19. Collect and submit all gas receipts to Head Office.

Emergency Response Plan

When a Scuka worker is in an emergency pertaining to travel and vehicle operation, they must do the following:

1. Stop and do not leave the scene of the accident.

2. If the accident is serious, turn off the vehicle and call 911.
3. If the accident is minor, pull over to the side of the road and turn off your vehicle.
4. Check your surrounding and see if anyone is hurt.
5. Call 911 if another driver is injured. If the driver is trained in first aid, perform life-saving interventions until an ambulance arrives.
6. Call Dan Scuka, the Company Safety Officer or your supervisor to report the incident and make arrangements for pick up and repair of the vehicle.

Electrical Safety - Overhead Power Lines

General Information

When working near exposed electrical equipment and conductors, all workers, tools, machines, materials, and equipment must maintain the safe limits of approach. The table below shows the minimum safe distances as specified by WorkSafeBC. For more information, refer to Part 19 Electrical Safety of the Occupational Health and Safety Regulations on the WorkSafeBC website.

VOLTAGE PHASE-PHASE	MINIMUM DISTANCE TO MAINTAIN METERS	FEET
Over 750 V to 75kV	3	10
Over 75 kV to 250kV	4.5	15
Over 250 kV to 550kV	6	20

Initial Steps

When any work activity needs to take place near energized overhead high-voltage lines, the following procedures must be followed:

1. Site Safety must be alerted that the work is to take place, and that it is near high voltage lines.
2. Site Safety will determine the voltage of the overhead lines through the authority controlling the system. (B.C. Hydro or Fortis B.C.) and advise the workers of the minimum safe distance.
3. Workers will maintain that minimum safe distance (see voltage- distance table) at all times.
4. Workers will not use a tape measure or stick to physically measure the distance from an energized power line. Estimate the distance from the ground and if in doubt, provide more clearance.

Three Keys of Electrical Safety

If you work around power lines, you need to understand 3 keys of electrical safety.

1. Look up and down
   Plan your work so you can avoid contact with power lines.
   Be aware of overhead and underground power lines.
2. Keep back and know your limits
   On foot, stay at least 10 meters (33 feet) away from power lines. Keep equipment at least 6 meters (20 feet) away from power lines.
   Use a spotter to make sure you are maintaining the minimum distance.
3. Stay back and call 911

Stay back at least 10 meters (33 feet) from an exposed fallen power line, or any object in contact with a power line, and call 911.

Safe Work Procedure

If the minimal distance from the electrical conductor cannot be maintained and movement by a worker or equipment may result in entering these minimum distances:

1. **Stop work immediately.**

2. **Call the power authority** controlling the electrical system and arrange for a worksite meeting. At the meeting decide whether the energized electric conductors can be de-energized, effectively guarded or displaced/rerouted.

3. **Get assurance in writing** (form 30M33) from the power authority indicating which of the three actions they will take and when it will be done.

4.. **Keep written assurances** on the worksite and **inform all workers** who will be directly affected by the power authority actions.

5. Designate a qualified safety-watcher who can:

- Monitor equipment and material movement
- Give an instant Stop signal to the equipment operator when the equipment or load nears the limits of approach for the electrical conductor.
- Make sure equipment, work tools or loads do not contact the electrical guarding.

Form 30M33 is provided to and used by all power system owners in BC. It is currently the only assurance in writing form that is acceptable to WorkSafeBC. The following information is from Part 19.25 of the WorkSafeBC Regulations:

Assurance in writing:

1. If the minimum distance in Table 19-1A cannot be maintained because of the circumstances of work or the inadvertent movement of persons or equipment, an assurance in writing on a form acceptable to the Board and signed by a representative of the owner of the power system, must be obtained.
2. The assurance must state that while the work is being done the electrical equipment and conductors will be displaced or rerouted from the work area, if practicable.
3. If compliance with subsection (2) is not practicable the assurance must state that the electrical equipment will be isolated and grounded, but if isolation and grounding is not practicable the assurance must state that the electrical equipment will be visually identified and guarded.
4. The safeguards specified in the assurance must be in place before work commences and effectively maintained while work is taking place.
5. If guarding is used,
   (a) neither equipment nor unqualified persons may touch the guarding, and
   (b) a safety watcher must be designated, or range limiting or field detection devices acceptable to the Board must be used
6. The assurance must be available for inspection at the workplace, as close as practicable to the area of work, and must be known to all persons with access to the area.

Emergency Evacuation Plan – Site

Purpose

To ensure the safe and efficient exit of all workers by providing an effective response to any emergency that may occur. The emergencies that may be anticipated include fire, earthquake, natural gas leak, electrical and medical emergency.

Roles of Scuka Employees

Superintendent will direct all workers to the appropriate MUSTER area and call 911. Send a worker to meet emergency medical services.

The Site Safety Officer will pick up the sign-in sheet and take a roll call at the MUSTER area. Document the names of missing employees and their last known location to inform the fire/rescue crew. Respond to medical emergencies and provide first aid and critical interventions to injured workers.

Where safe to do so, Scuka workers will sweep the building for workers and direct them to the designated MUSTER area.

Set out below is the signage to be posted at each fire station:

Evacuation Plan:

1. Airhorn is sounded during an emergency.
2. Stop work immediately and calmly walk to the nearest exit.
3. If you pass an airhorn on your way out of the building, repeat the evacuation signal.
4. Proceed to the primary MUSTER area unless directed to head to the secondary MUSTER area.
5. Assemble in groups by the company for role call.
6. Remain at the MUSTER area until it is safe to return to work.

MUSTER UP:

- 1 long continuous blast of an airhorn for an evacuation.

Medical Emergency:

- 3 short blasts with an airhorn for first aid.
- Report injuries to the Scuka Health and Safety Manager 250-308-1596.

Emergency Response Plan – Fire

Purpose

To provide a plan specific to fire emergencies so as to ensure the safety of all workers as well as the best measure of protection for any structure under construction.

Hazards

Fire is one of the most significant threats on a construction site. Many entire projects have been consumed by fire, sometimes within minutes. Apart from the hazard to the project, the hazard to workers is very serious. Workers could be seriously burned. The greater hazard to workers however is respiratory injury, which means an injury to the breathing system.

"Respiratory injury from smoke inhalation is a major cause of death in patients with or without body-surface burns. Smoke is a combination of suspended particles and gaseous products of combustion. The particulate matter (soot) does not cause major respiratory problems. Problems may be caused by gases from burned plastics, sulphur or nitrogen compounds, carbon monoxide, heat, and lack of oxygen. Smoke from some burning plastics contains cyanide, which prevents the body from utilizing oxygen. Respiratory distress may be immediate or delayed. Upper airway obstruction from tissue fluids may not occur for several hours. Furthermore, pulmonary edema, which may be rapidly fatal, may not be evident for many hours. It usually occurs within 8 to 36 hours after inhalation."[8]

Responsibilities

However well intentioned, workers are not trained firefighters and supervisors are not trained fire captains. Workers have a responsibility to those around them to sound the alarm, address containment of a fire where that is safe to do, to exit the building as safely as possible, and to follow the directions of their supervisor where that is safe to do. Supervisors have a duty to take steps to make sure the workers are protected, and to take such additional steps possible to protect the building where that can safely be accomplished.

Procedures

The plan that is set out below is one that is well established in the construction and industrial industry. Most experienced workers can recite the plan almost from memory if given a moment to think about it. There are ways to keep the plan effective including;

a) Make sure that new workers learn the plan
b) Regularly review the plan with all workers on site, and;
c) Make sure that workers take the airhorn signals seriously (never mis-use the airhorn.

[8] Occupational First Aid – A Reference and Training Manual. Workers Compensation Board of BC 2018 at page 70

FIRE SAFETY PLAN

[*INSERT PROJECT NAME AND STREET ADDRESS*]

[*YEAR*]

1. Upon seeing a fire, the worker shall raise the alarm. Call out to all workers FIRE FIRE FIRE. If wearing a site radio, also announce it on that.
2. If the fire appears easily controlled, use the nearest fire extinguisher and attempt to put the fire out. Discontinue efforts if immediate success is not possible.
3. Use the Airhorn and sound 1 blast for evacuation. Notify a supervisor of what's going on.
4. Close, but do not lock, doors on your way to the muster point.
5. Repeat the evacuation signal if you pass additional airhorns.
6. Supervisor: Assign a worker to call 911. Advise 911 of the site location [*Site Address*]. The worker shall explain to 911 the nature of the fire, workers at risk etc.
7. Supervisor:
    a. Send a worker to the airhorn located nearby the admin trailer, to repeat the evacuation sound (in case all of the people on site didn't hear it).
    b. Send a worker to the nearest fire extinguisher location to attempt fire control if this seems viable.
    c. Send another worker to get another fire extinguisher to join the first worker.
    d. Send another worker to go to the gate, to watch for and guide emergency vehicles.
    e. Supervisor: Attend to the muster station – to speak with all subtrades and assure that their workers are all accounted for. Form a plan for evacuation if that is necessary.
        i. If someone is not accounted for (Scuka worker or sub trade), send two workers to locate them. These two workers should be instructed not to enter any area that seems unsafe. Their safety comes first – no heroic rescues.
8. Workers: Be alert to directions from the Supervisor. Attend to the Muster Station unless your assistance is requested elsewhere. Smoke inhalation is extremely dangerous. Assess at all times as to whether you are safe.

Emergency Response Rescue Procedure

Purpose

The purpose of this plan is to provide written instruction for the timely and effective response to emergencies involving:

An injured worker who is able to get to the first aid room (Procedure 1)

An injured worker(s) who can't get to the first aid room (Procedure 2)

An injured worker(s) on the roof who cannot get down on their own accord (Procedure 3)

A fallen worker where self rescue or assisted self rescue is possible (Procedure 4)

A fallen worker trapped suspended in a harness (in an accessible by manlift location) (Procedure 5)

A fallen worker trapped suspended in a harness in an area not accessible by a manlift (Procedure 6)

An injured worker(s) on an upper floor or roof not accessible by a manlift, site personnel unable to move the worker by clamshell (Procedure 7)

Personal Protection Equipment

PPE required on all Scuka sites, Hard Hat, Vests, Proper Footwear. Additional equipment such as a full body harness, lanyard and rope grab may also be required.

Pre- Requirements

Updated Training such as Fall Protection training, EWP training and documentation sign off.

Hazards

Slip, Trip, Falls, Falls from height, contact with Power lines, Contact with equipment and people, suspension trauma.

Precautions

- Pre inspect all fall protection gear including anchor point and lanyard.

Procedure 1 – Injured Worker – Able to Get to First Aid Room

In the event that a worker has been injured and requires First Aid and is able to get to the first aid room:

1) Summon First Aid by means of Site Radio or air horn. Direct First Aid to the first aid room.
2) First Aid to attend the first aid room, determine the nature of the injury, perform any primary interventions as necessary, and assess whether transport will be necessary. First Aid to keep Scuka team advised as necessary so that they can assist.
3) If emergency transport will be necessary First Aid to call 911 or direct the Site Superintendent to do so. 911 to be advised of nature of injuries, number of injured and location of site. First Aid to conduct any stabilization measures deemed necessary.
4) If emergency transport will not be necessary, First Aid to determine if immediate medical attendance is necessary. If immediate medical attendance is necessary First Aid to make arrangements for transport of the worker as may be suitable given the nature of the injuries.
5) If no transport is necessary, First Aid to provide first aid as necessary.
6) First Aid to complete the necessary paperwork including Worksafe First Aid Record. First Aid should then reference the reporting rules and initiate an investigation as necessary.

Procedure 2 Injured Worker – Unable to Get to First Aid Room

In the event a worker has been injured and requires immediate First Aid response and is unable to get to the F/A room on their own

1) Summon F/A by means of Site Radio, Cell Phone, or **3 short blasts** from one of the air horns located in the nearest emergency box on site.
2) F/A attendant to grab OFA 2 jump kit, mobilize to scene, and determine nature of the injury and means of transport.
3) If the worker is Rapid Transport Category, F/A to call 911 or direct the Site Superintendent to make the call. Dispatch to be advised of the nature of the emergency, location of the site, location of the worker, and any challenges in reaching the worker.
4) F/A attendant to render any on site treatment as necessary until the ambulance arrives.
5) Site Superintendent to direct the paramedics to the scene when they arrive on-site.
6) F/A to fill out a First Aid Record and initiate the incident investigation.

Procedure 3 - Injured Worker on the roof

In the event a worker has been injured on the roof and is unable to get down on their own accord.

1) Follow **Procedure 2** &;
2) F/A attendant to render any on site treatment on the roof as necessary. First aid to assess whether emergency services need to be contacted.
3) Where necessary, Site Superintendent to direct the paramedics to the scene when they arrive on-site.
4) Where it is necessary to remove the worker from the roof before emergency services arrives or as may be directed by emergency services when they have arrived, first aid to package the injured worker in a clamshell and summon additional workers to assist in

lowering the worker down to the next level using the means of access from that level. First aid and additional workers to then carry the worker in the clamshell down the stairs for any additional levels necessary to get to ground level.

5) Emergency services will take over treatment once the basket reaches the ground

Procedure 4 – Fallen Worker – Self Rescue or Assisted Self Rescue Possible

1. Follow **Procedure 2** &;
2. Where a worker has fallen only a very short distance, by reason of having properly adjusted fall protection gear, it may be possible for them to pull themselves back up onto the work area, or onto a surface equivalent to their fall (a balcony on the floor below). In these circumstances, other workers may also be able to assist that worker.
3. It is absolutely essential that no rescue worker places themselves in a position where they may fall off of an unguarded edge without fall protection.
4. It is absolutely essential that the fallen worker not be disconnected from their fall protection gear until rescuers can be absolutely certain that they will not then fall.
5. Having items 2 and 3 firmly in mind the worker and rescuers may take such steps as can be safely accomplished to facilitate the workers return to the work surface or the surfaces equivalent to their fall such as pulling the worker up or throwing a rope from an equivalent balcony to the worker. First aid and site management should have in mind that there are a lot of willing helpers available on a construction site.
6. Emergency services is to assume control when the worker reaches the ground level. F/A will assist as directed.
7. All fall arrest gear involved in the fall is to be removed from service.

Procedure 5 - Fallen worker suspended in a harness in a location accessible by man lift. Self Rescue or assisted rescue not possible and Telehandler/EWP available

1) Follow **Procedure 2** &;
2) To get the suspended worker down to ground level safely, Emergency personnel on site will need to utilize either an elevating work platform or the telehandler with engineered man basket.
3) If the suspended worker is conscious, encourage the worker to keep their legs and feet moving to encourage circulation to the lower part of their body. Have the worker deploy foot straps if the harness is equipped with them. Have other workers lower a rope with a loop to the injured worker, to assist him in reducing the pressure of the harness. Where a ladder can reach the worker take immediate steps to get that in place to assist the worker.
4) First aid or a worker acting as rescuer will need to guide the operator to position the AWP or man basket to boom up underneath the suspended worker.
5) When using the telehandler, First Aid or the rescue worker will ride up in the man basket underneath the suspended worker.
6) Once the suspended worker is safely inside of the man basket, First Aid or the rescue worker will disconnect the worker's lanyard from their rope and attach it to the basket.

7) When both First Aid or the rescue worker and the fallen worker are secured to the basket, First Aid or the rescue worker will direct the operator to bring them down to ground level.
8) Emergency Services will assume control on ground level. First Aid is to assist as directed.
9) All fall arrest gear involved in the fall to be removed from service.

Procedure 6 - Fallen worker suspended in a harness - Telehandler/EWP Not Available/Accessible

1) Follow **Procedure 2** &;
2) If the suspended worker is conscious, encourage the worker to keep their legs and feet moving to encourage circulation to the lower part of their body. Have the worker deploy foot straps if the harness is equipped with them. Have other workers lower a rope with a loop to the injured worker, to assist him in reducing the pressure of the harness.
3) Assist with self rescue where possible, taking care not to expose additional workers to a fall hazard.
4) Where the worker can be reached by ladder, take immediate steps to get a ladder into position so that the worker can use that ladder to reduce the pressure on their limbs caused by the harness. If the worker is unconscious a worker should be assigned to climb the ladder and support the worker as may be possible if this can be done safely.
5) Where a ladder can be used to reach the worker, have the worker transition to the ladder and climb down if this can be done safety. If it cannot, continue to support the worker as possible and contact emergency services to get the suspended worker down to ground level safely.
6) Where a ladder cannot be used to reach the worker emergency services must be immediately contacted to get the suspended worker down to ground level safely.
7) All fall arrest gear involved in the fall is to be removed from service.

Procedure 7 - Injured Worker on the Roof or Upper Floor – Site Personnel not able to move worker using clamshell

In the event a worker has been injured on the roof or an upper floor and is unable to get down on their own accord.

1) Follow **Procedure 2** &;
2) First aid attendant to render any on site treatment as necessary.
3) Where the worker cannot be safely and securely moved, F/A attendant to continue with care as necessary. Emergency services are to be contacted and advised of the nature of the injury and be further advised that assistance will be required to move the patient.

Ergonomics - Manual Lifting and Carrying Procedure

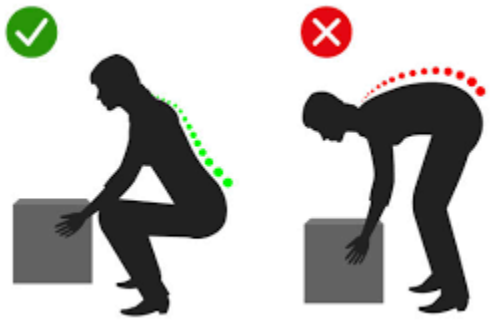
The purpose of this safe work procedure is to help prevent injuries associated with manual lifting and carrying. Most lifting accidents are due to improper lifting methods. All manual lifting should be planned, and safe lifting procedures followed.

The supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training. They are also responsible for providing lifting equipment where that is necessary.

The workers are responsible to:

1. Ensure that they know their physical limitations and the appropriate weight of materials.
2. Consider and employ the use of power equipment or mechanical lifting devices where practical.
3. Obtain assistance in lifting heavy objects.
4. Ensure a good grip before lifting and employ proper lifting technique.
5. Avoid reaching out.
6. Avoid carrying pipes, conduit, reinforcing rods and other conductive materials on the shoulder near exposed live electrical equipment or conductors.
7. Be aware of hazardous and unsafe conditions and ensure your path of travel is clear.

Proper and Improper Lifting Techniques



Emergency Response Procedure Severe Weather

Severe Weather: Thunderstorms, Hail, Blizzards, Ice Storms, High Winds, Heavy Rain.

Purpose

To ensure all personnel are aware of the warning signs leading up to various weather conditions and how to protect themselves in the event of severe weather at our worksites.

Personal Protection Equipment

Wear specific PPE required on all Scuka sites. Hard Hat, Vests, Proper Footwear. Wear weather appropriate clothing including weather that could arise.

Pre- Requirements

Updated Training and documentation sign off.

Lightning

Hazards

Electrocution, burns, loss of limb, airborne debris, damage to eyes. Lightning and lightning induced fires, flooding, wind, and hail.

General Information

If thunder can be heard, then lightning is present even though it cannot be seen. According to environment Canada lightning can cause 10 deaths and 164 injuries each year.

30-30 Rule

Seconds: Count the seconds between seeing the lightning flash and hearing the thunderclap. Each second represents about 300 meters. If this time is 30 seconds or less, then the lightning storm is less than 10km away and there is an 80% chance that the next strike will happen within that 10km. Work in exposed areas should immediately stop and workers should move to protected areas such as inside a building or an enclosed vehicle. The storm can be considered as ended where you have not heard thunder or seen lightning for at least 30 minutes.

Procedures

All employees working outside and specifically those working in open or high areas such as the roof or scaffolding should immediately at the first sounding of thunder or the first sighting of lightning or of a storm, cease work and respond to a covered protected area until the storm passes. Because lightning is attracted to the tallest object in the area, employees should not congregate under trees, umbrellas, or other tall objects.

- Workers who are working from an Elevated work Platform or from any Scaffolding on the jobsite are to move to lower ground immediately.
- Employees should not return to work until 30 minutes after the last sounding of thunder, or the last sighting of lightning or from observations that indicate the storm has moved away.
- If caught in the open during a thunder, lightning, rain or snow storm and the hair on your head or neck begins to stand on end, go inside the nearest building immediately! If no shelter is available, crouch down immediately in the lowest possible spot and roll up in a ball with feet on the ground. Do not lie down.
- If outdoors during a thunder and lightning storm, avoid water and metal objects such as wires, fences, power tools, railroad tracks etc... Unsafe places include tents, underneath trees, hilltops, and open spaces.
- Where possible, find shelter in a building, or in a fully enclosed metal vehicle, such as a car with the windows shut.

High winds, Heavy Rain, Blizzards or Ice Storms

Precautions

- Winterize your work location by clearing rain gutters and removing compromised trees or tree branches that could fall during strong winds.
- Stow flashlights around your business and remember to have extra batteries on hand in case of power failure. Other safe lighting options include glow sticks, crank-flashlights, headlamps, and battery-operated lanterns.

Procedure

1. Be aware of local forecasts. Be prepared for conditions that reasonably could occur.
2. In winter be sure that you have cold weather gear available in case you are not able keep a space heated. In summer have rain gear on hand.
3. Have appropriate snow shovels and ice melt on hand to address heavy snow or ice.
4. Check out the area to make sure that nothing will be lifted by high winds and become a missile. In particular secure all materials on upper floors so that they cannot be blown off. Secure all plywood to prevent it becoming airborne.
5. Where heavy rain is expected check the condition of gutters and drainage routes. Consider creating trenches to divert large amounts of water.
6. Where high wind is expected secure portable toilets so they cannot be blown over.
7. Seek shelter indoors where possible. Where an indoor shelter is not available seek shelter in as protected an area as possible.
8. Where ice storms or blizzards are in progress, exercise extreme care in travel. Roads may not be maintained and other motorists may not have proper equipment (tires etc) to safely navigate the road. Visibility may be seriously diminished.

EWP Operating Procedure

Scissor lift, Straight Boom and Articulating Boom lifts
General Procedure

Before beginning to operate, confirm that a copy of the operators manual is available. On boom supporting and articulating units ensure the NDT is current.

Inspect the condition of all safety devices including: Tilt alarm, Emergency Stop Buttons and Emergency Lowering Devices (if so equipped). See Operators manual.

Any person operating the controls of the EWP lift or occupying the platform must be familiar with these Safety and Operating Procedures.

Fall protection must always be worn. However, a person on a scissor lift, or on an elevating work platform with similar characteristics to a scissor lift, that is on a firm level surface with no irregularities to cause platform instability, is exempt from wearing a personal fall arrest system, provided that all manufacturer's guardrails and chains are in place.

Electrocution Hazard: These machines are not insulated. Maintain safe clearances from electrical power lines and apparatus. Review the Scuka procedure on Overhead Powerlines (site specific)

Be sure to have a spotter when operating near any high hazard areas and ensure the spotter is familiar with the emergency controls should the machine fail or if the operator is unable to lower the machine by themselves.

Observe Hazards

1. Do not drive near drop-offs, holes, or loading docks.
2. Do not raise the platform on slopes or drive on to a slope when elevated.
3. Do not raise the platform on uneven or soft surfaces.
4. Do not drive on to uneven or soft surfaces when elevated.
5. Do not use without guardrails, mid-rails, chain, or bar in place.
6. Do not raise the platform in windy or gusty conditions.
7. Do not attach anything to the basket that could cause a sail affect on the lift.
8. Do not exceed rated load maximum.
9. Do not use if the working platform is not working properly or if any parts are damaged.
10. Do not use near moving vehicles or cranes.
11. Do not stand or sit on guardrails.
12. Do not override safety devices
13. Do not raise the platform while the machine is on a truck, forklift, or other device or vehicle.
14. Do not use ladder, scaffolding, or other devices to increase size or working height.
15. Do not use with damaged tires.
16. Do not attach ropes or chains to guardrails or use as a crane.
17. Do not use with tires that are not per manufacturers specifications.

Pre-Start Checks

1. Check for obstacles around the work platform and in the path of travel such as holes,
2. Check for overhead clearances.
3. Make sure the batteries are fully charged. Disconnect battery-charging system from external power source. (Electric models)

Shut Down Procedure

1. Fully lower the platform in reverse sequence.

2. Push the emergency stop buttons.

    a) On the operator console.

    b) On the base control.

3. Turn the base key switch to the off position.

4. If you are finished with the EWP Lift, clear all tools, debris, etc., from the platform.

5. Post Check and perform a full walk around the machine looking for any hydraulic leaks

Training Required

WorksafeBC Guideline G13.2(1)-3 establishes Training requirements for operators of elevating work Platforms. Please note that where an operator has been trained, either by in house staff or at a course, there is no requirement to re-take that training unless there are deficiencies identified in the workers operation of the equipment. Additional training is never a bad thing, but the ability of the operator to continue operating the equipment does not end because an expiry date is identified on the card.

Excavation and Trenching

Purpose

The purpose of a standard excavation and shoring policy, practice and procedure is to enhance the level of care and safety for all workers through the implementation of a standard system for work undertaken while excavating and subsequently when working in excavations.
The nature of excavation work and the diversity of methods available for excavation safety require that standards be established and followed by all workers involved. WorksafeBC operates on a zero tolerance basis when it comes to excavation violations. Any violation of the WorksafeBC regulations will have very serious consequences.

Personal Protective Equipment (PPE)

PPE required for this task shall at minimum include: Hardhat, Safety Vest, CSA approved Boots. Additional PPE may include CSA approved eye protection, Work Gloves, CSA approved hearing protection, and protective clothing where weather or circumstances require.

Planning for Excavating

1. It is essential the BC One Call be obtained prior to starting the job. This BC One Call should ideally be updated on a monthly basis. There are two types of BC One Call.
   a. The first is a Planning and Design One Call, and the second is a Project One Call. The Planning and Design call should be obtained early on, when doing initial planning for the job. The results may significantly affect anticipated costs for the job. The Planning and Design information should indicate those services believed to be in the area.
   b. The second type is a Project One Call. This type includes attendance on the property. Those services will usually be marked at the points that they enter your job site. They may be located beyond that or they may not.
2. The BC One Call results are to be posted in the Superintendent's office.
3. The BC One Call results are to be posted in Procore in the drawings section as well.
4. Where subcontractors have been engaged to perform the excavation there should be specific inquires to confirm that they have obtained BC One Call and have reviewed that. They should be cautioned that BC One Call may not be sufficient and that they should use additional locates and safe digging practices as noted below. The subcontractor should be made aware that there will be backcharges if they cause any damage to a utility.

Procedure for Excavating

1. Review the BC One Call Results. This cannot be stressed enough. The BC One Call results must be very carefully reviewed. A quick look is not enough. If you hit a utility that is shown on the BC One Call you are responsible for the costs of repair. These costs can be very significant.

2. You must hand locate if you are within 1 metre of an indicated service line. BC One Call has specific instructions for hand locating. These can be found on their website.
3. You cannot assume that service lines run in a straight line or start or end precisely where they may be shown. The locates both on the map and as may have been made by BC One Call are an estimate only.
4. Consider doing additional locating by renting equipment or hiring a locate service. This can be a big cost saver compared to hitting a utility.
5. Dig in small lifts. Rather than sinking the bucket in to it's full capacity instead scrape at the surface in layers. This reduces the chances of a serious utility strike.
6. Dig with the direction of nearby utilities rather across the direction of nearby utilities. This also reduces the chances of a serious utility strike.
7. Dig with a flat edge bucket rather than a toothed bucket. This too reduces the chances of a serious utility strike.

Procedure for working in an excavation

1. No worker shall enter any excavation greater than 1.22 m (4 feet) in depth unless:

a) The sides of the excavation have been sloped or benched to a safe angle. This sloping or benching requirement can be combined with a 4 foot trench, however the maximum height of the excavation cannot be more than 20 feet deep without engineering approval. A detailed explanation and drawings of allowable sloping angles and combinations can be found in the WorksafeBC Regulations at part 20, or;

b) The sides have been supported by the use of sheet piling, shoring, or bracing that meets or exceeds the WorksafeBC regulations, or;

c) The trench is supported by a trench box that is designed/engineered for the purpose. The instructions for the use of the box, or the engineering certification should specify the soil conditions for which the box is intended and those instructions or that certification must be available on site, or;

d) The workers are protected by other effective means (i.e. Engineering Certification)

2. Where excavation projects are occurring on or adjacent to roadways or alleys, crews must ensure that adequate signage, barricades and/or road closures are in place to ensure the safety of the crews, motorists and the public.

3. A clear area, of at least two feet in width, must be maintained on each side of the excavation. Trees, poles, or any other objects, which may be undermined or made unstable by the excavation process must be removed, supported, or otherwise protected from the excavation process.

4. Crews are reminded to always "LOOK UP" at excavation sites to ensure that equipment related to the excavation site is not in close proximity to overhead power lines or other hazards.

5. Prior to starting an excavation it is essential that inquiries be made of BC 1 Call. Additionally, a locating service should be used where there is any question as to the location of underground utilities. Damage to utilities is extremely expensive, and all costs are attributed to the party that struck them. Where possible, the location and alignment of these services is to be marked in the work area.

6. Probing with sharp, or pointed tools, to determine the location of underground services, such as gas or electrical, is not permitted. Use a locate service, and then use hand tools carefully.

7. In all excavations, other than those which are sloped to a safe angle, the side walls shall be “trimmed” or “scaled” to remove any loose materials, rocks, or other objects, which might endanger workers.

8. Heavy equipment (i.e. excavators, backhoes, dump trucks, Vac trucks, etc.) must not be placed close to the edge of an excavation unless additional bracing has been installed or where permitted as per a professional engineer’s certification.

9. In all excavations greater than 1.22 m (4 feet) in depth, a ladder shall be provided in the immediate area where workers are employed. The ladder must extend from the bottom of the excavation at least 1 m (3 feet) above the ground level.

10. As a minimum, all spoil piles must be maintained at a minimum of 2 feet away from the excavation’s edge or more so depending on the size of the excavation.

11. Underground hazards, such as utilities or similar hazards must be assessed and exposed prior to excavation of the ground with powered equipment. Refer to drawings, as-built drawings, surveys, etc., and contact BC 1 Call.

12. Prior to entering any excavation, be alert to the possibility that the atmosphere in the excavation may be hazardous due to large amounts of dust, vapours, or gases, or a reduction of oxygen in the excavation.

13. If, at any point, it is felt that a harmful atmosphere may exist in an excavation, DO NOT ENTER, or immediately exit the excavation and contact the supervisor on site.

14. In any excavation work adjacent to roadways, or other locations where vehicle traffic may be a factor, a determination as to whether the traffic may constitute a vibration hazard must be made. If it is determined that vibration could be a factor, the excavation must be reviewed and certified by a professional engineer.

15. Report any sign of instability of the excavation to your supervisor without delay.

Fire Extinguisher Procedure

Job Steps

1. Ensure that you are using the correct extinguisher for the type of fire:

- CLASS "A" FIRES occur in materials such as rags, paper, wood and trash.
- CLASS "B" FIRES arise from the vapour-air mixtures found with flammable liquids such as gasoline, oil, grease, paints and thinners.
- CLASS "C" FIRES are electrical fires, or fires occurring in or near electrical equipment, thereby presenting the additional hazard of electrical shock.

2. Generally, an extinguisher that covers Class A, B & C are deployed on site.
   REMEMBER DO NOT USE A WET EXTINGUISHER ON A CLASS C FIRE
3. Stand back a distance of approximately six feet from the fire.
4. Use the **P.A.S.S.** method:

- **P**ull the pin on the extinguisher.
- **A**im the hose nozzle at the base of the fire.
- **S**queeze the handle to release the extinguishing agent.
- **S**weep the nozzle from side to side at the base of the flames until extinguished.

5. Should the fire not be extinguished do not endanger yourself. Immediately evacuate the building.
6. Once an extinguisher has been used it must be serviced and re-filled. Please remove it from service and replace with a fresh extinguisher.
7. Remember you are not a fire fighter, do not endanger yourself attempting to put out a significant or out of control fire.

Fire Protection Plan Procedure

The risk and cost of fire on a Construction project can be extremely high in economic and human terms. Accordingly, the following Fire Protection Plan is established:

1. Before work is performed, fire hazards must be checked for using a field level hazard assessment and controls put in place. Some of the most common hazards are wooden forms, scaffolding, scrap lumber, and flammable liquids. If there is any doubt regarding a hazard, contact the Superintendent or Safety personnel on site.

2. Construction buildings and sheds must be kept clean and orderly. Properly labelled garbage receptacles must be provided.

3. Heating equipment must be checked on a regular basis. Walls and roofs must be insulated at stove and pipe locations. Where tarpaulins are used to enclose an area, they should be securely fastened to avoid coming in contact with heaters.

4. ABC fire extinguishers must be available on all projects and located in compliance with local fire code. Extinguishers should additionally be located where increased risk of fire exists, particularly near fuel storage and refueling locations, fuel powered equipment, and generators. Extinguishers must be recharged immediately after use. Regular periodic inspection and service of extinguishers must be carried out.

5. Gasoline, oil, grease and other flammable liquids must be stored in safe locations, clear of work areas and not in any buildings or locations where workers are likely to gather. "NO SMOKING" signs must be prominently placed in such storage areas and the “NO SMOKING" rules enforced. Gasoline and other inflammables must be transported in appropriate containers that are designed for such and secured when in transport.

6. All items that may release flammable gasses must never be stored in an enclosed area including a sea can. Storage for these items must allow ready exchange of air and be designed to prevent a buildup of fumes either in the top or bottom of the storage container.

7. All fire prevention regulations established by owners and/or general contractors, particularly "NO SMOKING", must be observed in addition to any Scuka policy or procedure.

8. Personnel must report immediately to the Superintendent any fire damage occurring on their project.

First Aid Procedure and Policy

Policy

Scuka Enterprises has a duty, where it acts as the Prime Contractor, to supply First Aid services on the jobsite as required and specified by the Worksafe Regulations. Those Regulations establish the required number of first aid providers, the level of required first aid training, as well as the type of equipment to be provided. The Regulations require different levels of each of these and vary based on the number of workers on the jobsite, the level of risk on the jobsite, and the distance and challenges involved in getting an injured worker to hospital or getting the injured worker to the care of ambulance personnel where access to the worker may be restricted[9].

As part of complying with the Regulations, Scuka has provided First Aid Training to a number of Scuka Workers and provides First Aid Equipment to worksites as directed by the Regulations.

When do we provide first aid?

Rule #1, always, invariably, is that we only provide first aid where we can safely do so. This involves a personal assessment by the First Aid qualified person. That assessment is to be informed by the surrounding circumstances including physical conditions in the immediate area, available personnel, the nature of the patient, and the physical capabilities of the First Aid qualified person. If that assessment concludes that first aid cannot be safely provided there must be re-assessment with a view to what conditions can be adjusted so that first aid can be provided.

Firstly, we do not provide first aid if a person requests that we not do so. We also do not provide first aid where a person refuses to consent to our doing so. However, in assessing the person's refusal we must also assess their competence and the surrounding circumstances.

Whom do we provide first aid to?

We provide first aid to "workers" on site. We also provide first aid to members of the public who have been invited to site. Persons assigned to provide first aid on site must remember that their duty is to provide that service on site to workers. We may provide first aid to workers or members of the public who are in need of first aid in areas immediately adjacent to site. This could include on sidewalks at site, or roadways/intersections. We should avoid providing first aid to persons off-site where that would potentially leave the First Aid Provider in-accessible to site. Scuka's obligation to provide First Aid does not extend beyond the boundaries of the site and Scuka workers are not employed for the purpose of providing first aid or medical services to persons outside the boundaries of the site. Scuka's obligation to provide first aid also does not extend to uninvited members of the public on site. Scuka Workers providing First Aid services off-site are doing so outside the boundaries of the employment relationship. Scuka Workers providing First Aid services to uninvited members of the public on site are also doing so outside the boundaries of the employment relationship. Scuka workers would be well advised to be generally familiar

[9] Worksafe deems access to the worker to be restricted where Ambulance personnel may be unwilling to access them, including where Workers are in an area accessible only by ladder or scaffold, or are in a confined space area.

with the terms of the Good Samaritan Act[10] when considering whether to provide care outside the boundaries of the employment relationship. In assessing whether first aid will be provided the First Aid Qualified person must also firstly consider Rule #1 above.

Procedures

First aid procedures are included in this manual for reference only. These procedures are to be conducted by trained first aid personnel and include but are not limited to:

1. Supplying Aspirin (Heart Attack)
2. Assisting in Taking Nitro (Angina)
3. Administering an "EpiPen" (Anaphylaxis)

Supplying Aspirin Procedure

When treating a potential heart attack patient, it is vitally important that you survey the patient to ensure that there will be no drug complications.

The following precautions apply before ever supplying Aspirin to a patient:

1. No one under the age of 19 years old.
2. Ask if the patient is allergic to aspirin.
3. Do not supply to persons that suffer from ulcers or other bleeding disorders.
4. Do not give to anyone with Asthma.
5. Ensure that the patient has not already taken any.
6. Patients on blood thinners should not take aspirin.
7. Aleve(naproxen) or Advil (Ibuprofen) are chemically related so the risk of stomach complications increases, and it could undermine the blood thinning effect.
8. Alcohol use increases the chances of stomach complications.
9. If the above is cleared give no more than two 81mg or one 130mg aspirin to the patient.

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[10] The applicable paragraphs of the Good Samaritan Act are:

No liability for emergency aid unless gross negligence

1 A person who renders emergency medical services or aid to an ill, injured or unconscious person, at the immediate scene of an accident or emergency that has caused the illness, injury or unconsciousness, is not liable for damages for injury to or death of that person caused by the person's act or omission in rendering the medical services or aid unless that person is grossly negligent.

Exceptions

2 Section 1 does not apply if the person rendering the medical services or aid

(a)is employed expressly for that purpose, or

(b)does so with a view to gain.

Assisting in Taking Nitro (Angina) Procedure

When treating an Angina patient, it is important to use PPQRRST to ensure that you are not dealing with a heart attack patient. Before assisting in the taking of the patient's Nitro it is important to survey the patient.

The following precautions apply before ever supplying Nitro to a Patient:

1. Ensure that the prescription belongs to the patient and that it has not expired.
2. Ask if the patient has already taken any and if so when did they last take it as another may be given if the prescription directions permit it.
3. Ask if the patient has taken any vasodilator (Viagra, Cialis, Isosorbide) in the last 24-48 hours as this will cause the blood pressure to crash.
4. Vitals must be recorded for this patient upon arrival and after a half an hour.
5. If patient shows improvement the patient should be able to return to work with modified duties.
6. If patient does not improve with medication call 9-1-1 given the high chance of heart attack.

Administering an "EpiPen" Procedure

When treating an anaphylaxis patient, it is vitally important that you survey the patient to ensure that there will be no drug complications. The following precautions apply before ever administering an "EpiPen" to a patient:

1. Ensure they have not already taken a dose.
2. Ensure they do not have a heart condition or are on beta blockers which will counter act the epinephrine.
3. Medication can be used even if expired.
4. Inject directly into the side of the thigh, holding the injector there for the count of 10 seconds, massage the injection site after administering to aid in absorption.
5. If there is improvement in the patient do not give another dose.
6. If there is no improvement in the patient after five minutes a second dose may be given.
7. Remember the shot is only effective for 15-20 minutes and that the patient should be referred to medical aid regardless of their improvement.

Fork Hook MK 50 Lifting Attachment

Purpose

The purpose of this safe job procedure is to identify the issues associated with the MK 50 Fork Hook Lifting Attachment, and the procedures that must be applied by equipment operators to control those risks.

Issues

The MK 50 Fork Hook Lifting Attachment slides onto the forks of a telehandler or Manitou. Two thumb screw type bolts were then tightened to secure the lifting attachment. These thumb screw bolts were misleading, and have been removed. Because the forks on a telehandler are tapered, the attachment needs to move very little before the thumb screws no longer secure the MK 50. What actually secured the MK 50 fork attachment is keeping the forks at a greater than 90 degree angle at all times.

While it may seem obvious that the forks must be kept in an upward tilt situation, the challenge is that when using this attachment, the load is hanging below the forks. The operator will tend to watch the load. This can lead to a situation in which the operator is watching the load more than the fork angle. The operation of the Manitou from inside the cab is such that the extension of the boom is controlled by the right hand rocking forward. The angle of the forks can be decreased by rocking the right hand to the right. It is possible when extending the boom to also be unknowingly decreasing the angle of the forks.

Procedures

To address the issues associated with use of the MK 50 lifting attachment, workers are:

1. Directed to use a chain that secures the lifting attachment to the forks so that it cannot slide off of the forks. This chain should have a carabiner or clevis fastener to secure it and be of a locking type. The chain and carabiner or clevis fastener should both be rated for substantially more weight than the load being lifted.

*Note, when operating the Manitou using the remote control, the operation of controls is different, and it is impossible to unknowingly decrease the angle of the forks while performing another function. This is the preferred method of use of the MK-50 Fork attachment but securing chains as referred to above must still be used.

2. Directed to ensure at all times that the forks do not decline to a less than 90 degree angle. If the operator cannot be certain of this then a spotter must be used to monitor this.

Heat Stress

Safe Work Practice

Scuka Enterprises Ltd. recognizes that workers can experience serious adverse health effects caused by exposure to hot work environments. The healthy human body maintains its internal temperature around 37°C. The internal temperature can change with the type of clothing, the time of the day, physical activity, emotional state or thermal exposure. The human body cools itself by sweating. When a change of more than 1 °C occurs in the body, the effects can lead to heat-related injuries.

The Heat Stress Safe Work Practice (SWP) includes the following Do's and Don'ts of working in a hot environment.

Do's:

- Read, understand and comply with all requirements written in the SWP and SJP for heat stress.
- Check the weather for heat and humidity throughout the day.
- Use the Wet-Bulb Globe Temperature Calculator to understand when the body can no longer cool itself by sweating.
- Stop work and find a cool, safe environment.
- Drink water and electrolyte replacement drinks throughout the workday.
- Wear loose and light clothing and minimize layers to allow for airflow.
- Take the recommended work/break rotations.
- Recognize the signs and symptoms of heat stress.
- Know the difference between heat exhaustion and heatstroke.
- Understand your medical conditions, medications and their effect on the body.

Dont's:

- Ignore all requirements written in the SWP and SJP for heat stress.
- Work through with no breaks in a hot unsafe environment.
- Wear tight, heavy clothing and layers.
- Ignore the recommended work/break rotations.
- Ignore signs and symptoms of heat stress.
- Drink caffeinated beverages such as tea or coffee as these can lead to dehydration.
- Choose productivity over safety.

Hazards

The hazardous environments that lead to heat stress include working outside in high temperatures, high humidity, direct sunlight and or working inside with high temperatures, high humidity and no airflow. Factors that affect how a body reacts to heat include age, weight, medications, medical conditions (heart disease, high blood pressure, respiratory disease and uncontrolled diabetes), acclimatization, job tasks, clothing and physical fitness. The environmental hazards can lead to the following heat-related illnesses:

Heat edema is swelling which generally occurs among people who are not acclimatized to working in hot conditions. Swelling is often most noticeable in the ankles. Recovery occurs after a day or two in a cool environment.

Heat rashes are tiny red spots on the skin which cause a prickling sensation during heat exposure. The spots are the result of inflammation caused when the ducts of 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 a 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 a heat related illness that occurs when the body is unable to cool itself, often due to prolonged exposure to high temperatures or intense physical activity. Signs and symptoms of heat exhaustion include heavy sweating, weakness, dizziness, visual disturbances, intense thirst, nausea, headache, vomiting, diarrhea, muscle cramps, breathlessness, palpitations, tingling and numbness of the hands and feet. Recovery occurs after resting in a cool area and consuming cool drinks (water, electrolyte replacement drink, coconut water and bone broth).

Heat syncope is heat-induced dizziness and fainting induced by a temporarily insufficient blood flow to the brain.. It occurs mainly among unacclimatized people. The loss of body fluids caused by sweating and lowered blood pressure due to the pooling of blood in the legs which may occur during long periods of standing while in a hot environment can lead to this condition. Recovery is rapid after rest in a cool area.

Heatstroke is the most severe type of heat illness. The most obvious sign of heatstroke in contrast to the symptomology of Heat Exhaustion is that the body will have stopped sweating, and skin will appear dry. . Heatstroke can lead to a complete or partial loss of consciousness. Heatstroke requires immediate emergency first aid and medical attention. Delayed treatment may result in death.

Control Measures

Elimination	• Stop work and shut down Jobsite when the risk of heat stress cannot be controlled. • Reschedule outside the work for cooler days.
Substitution	• Change the location of the task by moving inside the building or parkade. • Move the task into an air-conditioned area.

Engineering	Engineering controls to minimize the risk of thermal exposure: • Decrease the metabolic rate by encouraging light duty. • Cover windows and close blinds. • Reduce humidity with dehumidifiers. • Turn on air conditioners and fans. • Set up portable fans to increase airflow. • Set up canopies or tarps for shade outside. • Move tasks inside the parkade. • Change work hours to early mornings. • Set up cooling stations with shade, fans, ice packs, water and electrolyte replacement drinks. • Change PPE requirements to allow for airflow. • Set up a hose with cool, potable water and towels.
Administration	Train all Scuka employees and workers to: • Find and use the Safe Work Practice and Safe Job Procedures. • Check the weather: temperature and humidity. • Calculate the Wet-Bulb Globe Temperature. • Recognize the signs and symptoms of heat stress. • Use work/rest cycling requirements. • Stop work and cool down. • Call for first aid when experiencing heat stress.
Personal Protective Equipment	• Assess hazards and ensure only required PPE is being worn. • Take off high-vis vests and hard hats inside, where there are no overhead hazards. • Wear UV protective clothing. • Wear tinted safety glasses

Safe Job Procedure

Wet-Bulb Globe Assessment

1. Fill out a Field Level Hazard assessment to analyze the job tasks, Jobsite conditions and identify the hazards for the day.
2. Check the weather and calculate Wet-Bulb Globe Temperature (WBGT) using temperature and humidity. https://www.omnicalculator.com/physics/wet-bulb
   - The Wet-Bulb Globe Temperature is calculated using a formula that considers air temperature, speed of air movement, radiant heat from hot objects, sunshine and body cooling due to sweat evaporation.
   - A body can no longer cool itself by sweating when the Wet-Bulb Temperature is 35C and quickly leads to heat stress, heatstroke and death.

3. Monitor the Wet-Bulb Temperature regularly in various places on the Jobsite.
4. Implement work/ rest cycles to allow the body to cool down.
5. Use the ACGIH Screening Criteria for Heat Stress Exposure **(WBGT values in °C)** for an 8-hour workday five days per week with conventional breaks.

Table 1: ACGIH Screening Criteria for Heat Stress Exposure (WBGT values in °C)

Allocation (percentage) of Work in a Work/Rest Cycle	**Acclimatized**				**Action Limit (Unacclimatized)**			
	Light	Moderate	Heavy	Very Heavy	Light	Moderate	Heavy	Very Heavy
75-100%	31.0	28.0	--	--	28.0	25.0	--	--
50-75%	31.0	29.0	27.5	--	28.5	26.0	24.0	--
25-50%	32.0	30.0	29.0	28.0	29.5	27.0	25.5	24.5
0-25%	32.5	31.5	30.5	30.0	30.0	29.0	28.0	27.0

How to apply the scale to your Jobsite:

1. **Approximate proportion of work within an hour — 75 -100% work, 50 - 75% work, 25-50% work or 0-25% work with the remaining fraction of the hour allocated to recovery or "rest"**
2. Acclimatization is whether or not workers are acclimatized to the heat.
3. Work demands (metabolic rate category for the work) - light, moderate, heavy, or very heavy.

Time Limit Values assume that workers exposed to these conditions are adequately hydrated, are not taking medication, are wearing lightweight clothing, and generally have good health.

Examples of workloads:

Rest – sitting in the office doing paperwork or computer work. (quietly or with moderate arm movements)

Light work - sitting or standing performing light hand or arm work, using a table saw, sweeping, mobile equipment operation, occasional walking, and driving.

Moderate work - walking around the Jobsite cleaning, scrapping out, garbages, and various labour tasks.

Heavy work - pick and shovel work, digging, carrying, pushing/pulling heavy loads; walking fast; e.g. carpenter sawing by hand.

Very Heavy - very intense activity at fast to maximum paces such as shovelling, unloading or loading equipment and materials.

Adapted from: 2016 TLVs® and BEIs® - Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. Cincinnati: American Conference of Governmental Industrial Hygienists (ACGIH), 2016, p. 218.

6. Implement the hierarchy of controls listed above to ensure that no worker's body temperature exceeds the regular 37C.
7. Monitor Scuka employees and workers for signs and symptoms of heat stress.
8. Report to the Site Safety Officer for first aid for treatment.
9. Follow treatment procedures for heat exhaustion and heatstroke.
10. Reassess the effectiveness of the controls measures in place to ensure the workers are safe.

Humidex Measurements and Responses[11]

Another method of assessing the temperature experienced by the worker is to use the Humidex tables provided by Worksafe. This may be a more practical way to determine what precautions need to be taken as it requires only determination of the actual temperature and humidity in the work area. There is then an adjustment in the calculation to allow for factors such as hard hats, heavy clothing etc. WorkSafeBC provides the following tables:

[11] To avoid duplication this section should be read in conjunction with table 1 in the Wet-Globe section above.

Table 1: Humidex Table

°C	Relative Humidity (in percent)																		
	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10
49																			50
48																			49
47																		50	47
46																		49	46
45																	50	47	45
44																	49	46	43
43																49	47	45	42
42															50	48	46	43	41
41															48	46	44	42	40
40														49	47	45	43	41	39
39													49	47	45	43	41	39	37
38												49	47	45	43	42	40	38	36
37											49	47	45	44	42	40	38	37	35
36									50	49	47	45	44	42	40	39	37	35	34
35								50	48	47	45	43	42	40	39	37	36	34	33
34							49	48	46	45	43	42	40	39	37	36	34	33	31
33					50	48	47	46	44	43	41	40	39	37	36	34	33	32	30
32			50	49	48	46	45	44	42	41	40	38	37	36	34	33	32	30	29
31	50	49	48	47	45	44	43	42	40	39	38	37	35	34	33	32	30	29	28
30	48	47	46	44	43	42	41	40	39	37	36	35	34	33	31	30	29	28	27
29	46	45	43	42	41	40	39	38	37	36	35	33	32	31	30	29	28	27	26
28	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
27	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25		
26	39	38	37	36	35	34	33	33	32	31	30	29	28	27	26	25			
25	37	36	35	34	33	33	32	31	30	29	28	27	26	26	25				
24	35	34	33	33	32	31	30	29	28	28	27	26	25						
23	33	32	31	31	30	29	28	28	27	26	25								
22	31	30	30	29	28	27	27	26	25	25									
21	29	29	28	27	26	26	25												

The following must also be considered (added) when calculating a Humidex value:

- The *Humidex method* assumes that workers are wearing regular summer clothing (light shirt, pants, underwear, socks and shoes). If workers wear coveralls (e.g., cotton coveralls) over summer clothes, then 5°C should be added to the workplace Humidex value. Gloves and/or hard hat would each add 1°C and an apron (or vest) would add 2°C to the Humidex value. For workers who wear encapsulating suits, do not use the *Humidex method*.
- To adjust for radiant heat in direct sunlight (between 10 am and 4 pm), add 2 - 3°C to the Humidex value (pro-rate according to percentage cloud cover).
- For indoor radiant heat exposures, use training, knowledge, and experience to adjust the 2 - 3°C sunlight correction factor by estimating whether the exposure is more or less than the heat exposure to direct sunlight. Workplaces with significant process-related heat load (e.g. from boilers, furnaces, steam lines, etc.) should measure the WBGT.
- Humidex values should be measured at several locations in the work area (safe work procedures should be based on the highest reading).
- Do not base Humidex values on weather station or media reports. Use measurements taken at the worksite.
- Measurement should be recorded hourly if the Humidex is above 30°C.
- Never ignore anyone's symptoms regardless of the measurements.

In order to determine the procedures to be followed to protect workers from heat stress, the calculated Humidex value must then be compared to the Humidex guidelines in the *Humidex Heat Response Plan* table (Table 2). The response (Humidex 1 or Humidex 2) depends on the amount of physical work being done and the level of acclimatization of the workers.

Humidex 1 - corresponds to the ACGIH Action Limit and applies to moderate work loads (e.g., pushing and lifting) for unacclimatized workers, or heavy work loads (e.g., shoveling sand) for workers acclimatized to heat (see also OHS Guideline G7.28(1)).

Humidex 2 - corresponds to the ACGIH TLV® and applies to moderate work for acclimatized workers or light work for unacclimatized workers.

Note: An unacclimatized worker is a worker who is not accustomed to working in a hot environment or who has been out of a hot environment for seven consecutive days. It may take several days for workers to become acclimatized.

Table 2: Humidex Based Heat Response Plan

Humidex 1 Moderate unacclimatized & Heavy acclimatized	**Response**	**Humidex 2** Moderate acclimatized & Light unacclimatized
25 - 29	Supply water to workers on an "as needed" basis	32 - 35
30 - 33	Post Heat Stress Alert notice; encourage workers to drink extra water; start recording hourly temperature and relative humidity	36 - 39
34 - 37	Post Heat Stress Warning notice; notify workers that they need to drink extra water; ensure workers are trained to recognize symptoms	40 - 42
38 - 39	Work with 15 minutes relief per hour can continue; provide adequate cool (10-15°C) water; at least 1 cup (240 mL) of water every 20 minutes. Worker with symptoms should seek medical attention	43 - 44
40 - 41	Work with 30 minutes relief per hour can continue in addition to the provisions listed previously	45 - 46*
42 - 44	If feasible, work with 45 minutes relief per hour can continue in addition to the provisions listed above	47 - 49*
45* or over	Only medically supervised work can continue	50* or over

* at Humidex exposures above 45, heat stress should be managed as per the ACGIH TLV®. The above administrative control measures do not preclude using other means to reduce excessive heat exposures, such as providing additional air conditioners or fans for spot cooling. In fact, engineering controls are the most effective means to control heat stress and should be considered first and in conjunction with the above steps as part of the heat stress ECP. For more examples of control measures, refer to WorkSafeBC publication *Preventing Heat Stress at Work*.

Emergency Response Plan

The symptoms and first aid steps for heat exhaustion

Symptoms of heat exhaustion include nausea, irritability, dizziness, muscle cramps or weakness, feeling faint, headache, fatigue, extreme thirst, heavy sweating, high body temperature and red complexion.

First aid for heat exhaustion includes:

1. Report the situation to the Site Safety Officer and or Superintendent.
2. Remove the worker from the hot environment to the shade or in an air-conditioned or cool area.
3. Remove as many clothes as possible and appropriate (including socks and shoes).
4. Apply cool, wet cloths or ice to the head, armpits, face or neck. Spray with cool, potable water.
5. Encourage the worker to drink water or electrolyte replacement drink.

The symptoms and first aid steps for heatstroke

Heat exhaustion may quickly develop into heatstroke. Signs and symptoms of heatstroke include red, hot, dry skin or profuse sweating, confusion, loss of consciousness, seizures and very high body temperature.

First aid for heatstroke includes:

1. Call 911 immediately. Heatstroke is a medical emergency.
2. Report to the Site Safety Officer and or Superintendent.
3. Remove from the hot environment to the shade or in an air-conditioned or cool area.
4. Remove as many clothes as possible and appropriate (including socks and shoes).
5. Apply cool, wet cloths or ice to the head, armpits, face or neck. Spray with cool, potable water.
6. Do not try to force the person to drink liquids.

Hoist and Crane Operations

Task
Using a crane or hoist to perform lifting on the jobsite.

Scope
The purpose of this practice is to protect workers from risks associated with the operation of a hoist or crane. The operation of a crane or hoist is a specialized task that involves experience and technical instruction. The lifting of loads creates a risk that must be carefully managed.

Commissioning and Decommissioning
Fixed Position Crane: The commissioning and decommissioning (setup and take down) of a crane is an extremely specialized task. When any part of such a task goes wrong the result can, and has been, fatalities. Commissioning and decommissioning of a fixed position crane shall only be performed by erection companies hired for that specific task. All persons involved in the procedure shall be persons employed by that company.

Mobile Cranes: The use of a mobile crane or hoist similarly carries significant risk. As the size of the equipment decreases the amount of risk decreases but is never entirely absent. Even things like a telehandler or manitou can be suddenly compromised where ground is not adequately compacted. Carefully assess the ground conditions, the nature of the load, and the potential risks prior to using this equipment.

Operation
- Only trained and authorized personnel shall operate hoisting equipment.
- To avoid dangerous communication errors on the jobsite, Scuka Enterprises requires all signalers and crane operators be completely familiar with the hand signals illustrated below.
- Crane Operators are required to adhere to WorksafeBC Crane Regulations.
- Crane operators are required to have a Class A or Class B ticket, and to comply with any limits that may be imposed on that ticket.
- Crane Operators are to comply with manufacturers specifications and limitations applicable to the operation of all cranes as well as specifications and limitations applicable to the particular piece of equipment they are operating.

Inspection and Maintenance
- Inspection of hoisting equipment shall be made by a Qualified Person. Qualified is defined by Worksafe[12] as meaning being knowledgeable of the work, the hazards involved and

[12] Worksafe OHS Regulations Part 1, Definitions.

the means to control the hazards, by reason of education, training, experience or a combination thereof.

- All rigging equipment shall be inspected before use each day.
- Records of all formal safety inspections of the crane or hoist will be retained.
- Inspections, based on the manufacturer's recommendations shall be completed prior to each use and on regular intervals.
- All maintenance repairs and routine service records will be retained.
- All damage repairs to the lifting boom, once completed, will be inspected and approved by a registered Engineer.

Hoisting and Mechanical Lifting

- The operator of hoisting equipment is responsible for the safe lift and shall determine whether the load to be lifted is within the capacity of the hoisting equipment and that the appropriate lifting device (i.e. Chain, choker, sling or bridle) is used.
- Hoisting equipment shall be inspected each day before it is put into use.
- Approved hand signals shall be reviewed and used.
- The operator and signal person must carefully observe the position of power cables, piping, valves, booms, etc. before initiating the lift.
- The hoisting machine operator must keep his/her attention on the person giving the signals. The signal person must always keep his/her attention on the load.
- Lifting shall be done with slings, cables or chains that have been approved by an engineer for that purpose.
- Cables and fabric slings should be protected with pads or blocks where they are placed around sharp edges.
- Tag lines shall be used to control load swing, rotation and/or balance, when necessary, to prevent a hazard to workers.
- When lifting pipe or any smooth-surfaced materials, slings (bridles and chokers) should be placed around the object with at least two turns or fastened choker fashion.
- Materials or equipment shall not be left hanging on the hoist indefinitely.
- Crane Operators shall not attempt to lift loads that exceed the rated capacity of the crane, hoist or lifting slings, rope or chains. Operators shall have in mind that the smaller the angle of the legs of slings or chains, the less lifting capacity is then available.
- Operators shall not use baskets for personnel lifting unless they have been designed for that purpose and have been approved by a Professional Engineer.
- Standing or riding on material hoists, crane blocks or crane loads is prohibited. Riggers and operators should check enclosed loads to be sure no one is onboard.
- Wear personal protective equipment appropriate to hoisting operations.
- Loads are to be securely connected and balanced prior to lifting.
- Lifts are not to be conducted with kinks or twists in the wire rope or chains.
- All workers are to be kept clear of loads about to be lifted and of suspended loads.
- Crane operators shall use the crane buzzer, and riggers shall use call outs, whistles of other methods to alert workers that loads are in the air to allow workers to move out of the way where possible.
- Workers shall listen for signals from the crane operator or riggers and remove themselves from the path of loads where this is possible.

- Operators shall check over or be familiar with the nature and weighting of the loads to be lifted. Some loads may be top heavy or unbalanced and require being strapped to remain in place.

Slings – Safe Operating Practices

- Prior to use all slings, fastening and attachments shall be inspected for damage by a qualified person. Additional inspections shall be performed during use as service conditions warrant.
- Damaged or defective slings shall not be used and shall be immediately removed from service.
- All slings should be stored in a well ventilated dry building, shed or other shelter. They are never to be stored on the ground or allowed to be continuously exposed to the elements.
- Slings shall not be loaded more than their rated capacities.
- Slings shall be securely attached to their loads.
- Slings shall be padded or protected from the sharp edges of their loads.
- Slings shall not be pulled from under a load when the load is resting on the sling.
- Slings shall not be shortened with knots or bolts or other makeshift devices.
- Sling legs shall not be kinked.
- Slings used in a basket hitch shall have the loads balanced to prevent slippage.
- Suspended loads shall be kept clear of all obstructions.
- Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
- Shock loading is prohibited.

Alloy Chain Slings

- All alloy chain slings must have permanently attached durable identification. The identification must include the size, grade, rated capacity and reach.
- A sling shall not be used at more than the rated capacity of the weakest component.
- Alloy steel chain slings with cracked or deformed master links, coupling links or other components must be removed from service.
- Slings must be removed from service if hooks are cracked, have been opened more than fifteen percent (15%) of the normal throat opening measured at the narrowest point or twisted more than ten degrees (10®) from the plane of the unbent hook.
- In addition to the “before each use” visual inspection required for all slings and other rigging equipment, an annual inspection shall be conducted by an engineer to confirm that the equipment remains in appropriate condition for its intended use.

Wire Rope

- Wire rope slings shall not be used with loads that exceed the manufacturer’s rated capacities.
- Wire rope slings shall be immediately removed from service if:
    - There are ten randomly distributed broken wires in one rope lay, or five broken wires in one strand in one rope lay.

  - There is wear or scraping of one-third the original diameter of the outside individual wires.
  - There is kinking, crushing, bird caging or any other damage resulting in distortion of the wire rope structure.
  - There is evidence of heat damage.
  - There are end attachments that are cracked, deformed, or worn.
  - There are hooks that have been opened more than 15 percent (15%) of the normal throat opening measured at the narrowest point, or twisted more than 10 degrees from the plane of the unbent hook.
  - There is corrosion of the rope or end attachments.

Synthetic Web Slings

- Each sling shall be marked or coded to show:
  - The name or trademark of the manufacturer.
  - The rated capacities for each type of hitch and type of synthetic web material.
- Rated capacities shall not be exceeded.
- Fittings shall be or a minimum breaking strength equal to that of the sling and free of all sharp edges that could damage the webbing;
- Stitching shall be the only method used to attach end fittings to webbing and to form eyes. The thread shall be of an even pattern and contain a sufficient number of stitches to develop the full breaking strength of the sling.
- Synthetic web slings shall not be used where fumes, vapors, sprays, mists or liquids of an acidic or caustic nature are present.
- Synthetic web slings must be immediately removed from service is any of the following conditions are present:
  - Acid or caustic burns.
  - Melting or charring of any part of the sling surface.
  - Snags, punctures, tears or cuts.
  - Broken or worn stitches.
  - Distortion of fittings.

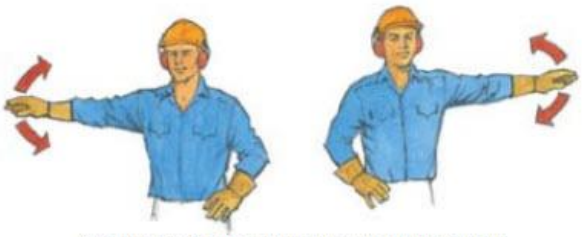
Hooks

- At least annually, hooks shall be visually inspected by a qualified person.
- Hooks found to have any of the following conditions shall be removed from service:
  - Bending, deformation or twisting exceeding 10 degrees (10°) from the plane of the unbent hook.
  - Distortion on the throat opening of a hook causing an increase in the throat opening exceeding 15 percent (15%)

Hand Signals For Hoist And Crane Operations

If hand signals are used between a signaler and the operator of a crane or hoist to control hoisting operations, the following signals should be used:

STOP



Arm extended, palm down, move hand horizontal.

HOIST

With forearm vertical, finger pointing up, move hand in small horizontal circles.

LOWER

With arm extended down, move forefinger; pointing down, move hand in circles.

TROLLEY OUT

Both fists in front of body, with thumbs pointing outward.

TROLLEY IN

Both fists in front of body, with thumbs pointing toward each other.

SWING

Arm extended, point in direction of swing of boom.

DOG (STOP) EVERYTHING

Clasp hands in front of body.

Hot Work Practices & Procedures

Purpose

Hot work is any work that creates sparks or fire. Hot work is recognized as constituting a significant hazard on any construction site. Fires have happened many times on construction sites. This is not a rare occurrence. Until such time as siding and drywall are in place the risk of total loss in the event of a fire is very high. When one considers that in the course of construction there is often welding, brazing, placement of torch on roofing materials, and cutting of significant amounts of metal, one can fairly say that fire is a relatively foreseeable consequence of the construction process itself. Add to this the risks posed by vandals or vagrants and we start to see why insurance costs are as high as they are.

Practises

Key Safe Work Practices when Hot Work is occurring include:

b. Workers must be comfortable with getting a fire extinguisher and keeping it with them.
c. When Hot Work is occurring, presume there will be a fire. It is Hot Work and a fire is not a surprise.
d. Fires at the edges of site can escape the site and are more likely to get started in underbrush. Try to keep Hot Work central to the site where more eyes can be on it.
e. Where Hot Work is occurring repeatedly take additional time to set up a station that is highly resistant to fire.
f. Pay particular attention to any containers nearby the Hot Work. These can become receptacles for sparks that may smolder.
g. Check the area carefully for anything that can act as an accelerant.

Procedures

1. Prior to conducting Hot Work of any kind workers are required to obtain a Hot Work Permit. This can be obtained from the Site Safety Coordinator (SSC).
2. Prior to issuing a Hot Work Permit the SSC shall determine the location of the proposed Hot Work, the process to be used, the persons who will be conducting the Hot Work operation as well as performing any fire watch and the location of nearby hazards and methods of fire control.
3. The SSC issuing the Hot Work Permit shall confirm that the person doing the Hot Work has a charged fire extinguisher within immediate arms reach.

4. The SSC issuing the Hot Work Permit shall from time to time check on the performance of the Hot Work to confirm that the work is being performed in compliance with the permit.
5. The SSC shall have regard to the need for subsequent fire watch after completion of the Hot Work. In Kelowna the Fire Safety Plan application for construction requires a Fire Watch of at least one hour. Depending on the terms of our insurance, guard patrol must be provided for 2 hours after the work and a subsequent follow up check 4 hours may be required. This can be satisfied more readily when we have overnight security on site, which generally occurs when we start standing walls.

Impairment Policy and Procedure

Purpose

Under this policy, Scuka Enterprises Ltd. (Scuka) ensures workers that are or appear to be physically and mentally impaired from drugs and alcohol or other conditions are immediately removed from the Jobsite to create a safe, healthy, and substance-free working environment. Management recognizes that workers who are under the influence of drugs and alcohol increase the risk of injury and death to the impaired worker and all other workers. All Scuka employees and subcontractors will be Fit for Duty when they arrive at, and work on, Scuka jobsites.

Rules of Impairment and Possession

1. Possession of alcohol, cannabis, and illegal drugs are prohibited on Scuka job sites and considered gross misconduct which may result in dismissal from Scuka Enterprises Ltd.
2. Scuka employees and subcontractors must not enter or remain at any Scuka Jobsite if they are impaired by illegal drugs, alcohol, cannabis, prescription drugs, over the counter and self-administered drugs and fatigue.
3. Scuka employees and subcontractors must report to a Scuka Supervisor when they are impaired and not Fit for Duty.

Definitions

- “Impairment” is the condition or state of being under the influence of a substance that diminishes one’s abilities and causes a loss of mental and physical function.
- “Fit for Duty” is a physical, mental, and emotional state which enables workers to perform their job tasks competently in a manner that does not compromise the integrity of Scuka Enterprises Ltd. or create a safety hazard to themselves or other workers.
- “Prohibited Substances” that may cause impairment include alcohol, cannabis, illegal drugs, prescription drugs (including medically prescribed cannabis) to treat medical conditions, over-the-counter medications, and fatigue.
- “Signs and Symptoms” are evidence of impairment which include personality changes or erratic behaviour, the appearance of impairment (e.g., an odour of alcohol or drugs,

glassy or red eyes, unsteady gait, slurring, poor coordination, agitation), and working in an unsafe manner or involvement in an incident.

Responsibilities

Management:

- are responsible for providing a safe, healthy, and alcohol and drug-free environment on all Scuka Enterprises Ltd. Jobsites.
- must establish an impairment policy that enforces strict “Rules of Impairment and Possession”.
- must create a procedure to remove an impaired worker from the Jobsite while ensuring the safety of all Scuka employees, visitors, and subcontractors.
- will demonstrate sensitivity to ensure the worker's right to privacy with any medical information that may be attained during an investigation.

Supervisors:

- must read, understand, and enforce Scuka’s Impairment Policy and Procedure.
- will educate all Scuka employees and subcontractors on Scuka’s Impairment Policy and Procedure.
- must not knowingly allow a worker to remain at any Jobsite while the worker's ability to work is suspected to be affected by alcohol, drugs, substances or other conditions that endanger the worker or anyone else.
- must understand and recognize the Signs and Symptoms of impairment.
- must identify, investigate, and document all incidents where a worker may be impaired on a Scuka Jobsite.

Workers:

- shall participate in a safety orientation to gain an understanding of Scuka’s site rules and expectations for safety and behaviour.
- must disclose whether they have a diagnosed medical condition and/ or allergies.
- must disclose if they are taking any type of medication whether prescribed, over the counter or self-administered.
- must not enter or remain at any Scuka Jobsite if they are impaired and not Fit for Duty as Impairment affects the ability to work and perform their duties.

Safe Work Procedure

Step 1. Prevention and education:

1. New workers must participate in a safety orientation that highlights Scuka’s Impairment Policy and Procedure.
2. New workers must read, understand, and sign the safety orientations stating that they understand they must not be impaired or in possession of drugs and alcohol on the Jobsite.

3. Workers must disclose if they have medical conditions, allergies or are currently on any medication that may hinder their ability to perform their tasks safely.
4. Scuka's Impairment Policy and Procedure will be presented at a weekly safety meeting to educate and set clear expectations for all workers.

Step 2. Identify and investigate:

1. All workers present on the Jobsite must report when they witness the signs and symptoms of impairment in another worker to Scuka supervisors.
2. Superintendents and Site Safety Officers will investigate all reports of impairment and/ or possession of drugs and alcohol.
3. Subcontractor Supervisors will be informed when their employee is impaired and/or in possession of drugs and alcohol.

Step 3. Removal from Jobsite:

1. When a worker is confirmed to show Signs and Symptoms of Impairment the Site Safety Officer and Superintendent will approach the worker to assess their condition and educate them on Scuka's Impairment Policy and Procedure, and Rules of Impairment and Possession.
2. The impaired worker will need safe transportation when leaving Scuka's' Jobsite. Scuka employees will be driven home in a Scuka company vehicle or taxi. A subcontractor worker will be driven home by the subcontractor Supervisor or taxi.
3. The Site Safety Officer will document all interactions and events by creating an incident report on Procore.
4. A follow-up email will be sent to the company setting clear expectations for workers being Fit for Duty onsite and a return-to-work plan.

Step 4. Return-to-work and re-education:

1. Each incident which contravenes Scuka's Impairment Policy and Procedure will be assessed and disciplinary actions will be imposed on a case-by-case basis. Depending on the severity of the incident a worker may be permanently removed from employment with Scuka.
2. Scuka Superintendents and Site Safety Officer will discuss the return-to-work process with the head of trade for that company, to be followed by an email to ensure the employee and or sub-contractor understands the expectation of being fit for duty while working for Scuka Enterprises Ltd.
3. The worker will be re-educated on Scuka's site rules by participating in a thorough orientation. This will include reading and signing our Impairment Policy and Procedure.
4. The worker is required to check in with Site Safety Office before starting work to ensure they are Fit for Duty and safe to be working on the Jobsites.

References

- *Workers Compensation Act*, RSBC 2019, C.1, Part 2, Division 4, Sections 21 and 22(2)(d)
- *Occupational Health and Safety Regulation Section* 4.19 and 4.20

Jumping Jack Procedure

Personal Protective Equipment: Hard Hat, Safety Vest and Hearing Protection, Safety Glasses and Gloves if required.

Job Steps

1. Conduct an inspection of the tool. If there is any damage tag out the tool and report it to your supervisor.
2. Check oil and gas levels.
3. Regular gas only.
4. Confirm that the fuel valve is open
5. If the engine is cold close the choke on the engine. Refer to the owners manual if necessary.
6. With the throttle in the idle position pull the starter rope. Don't start jumping jack on hard surfaces such as asphalt or concrete.
7. Allow a cold engine to warm approximately 1 minute before full throttle.
8. When holding the rammer, a wide grip will reduce vibration and will be easier to control.
9. Allow the rammer to do the work. Don't try to overpower the machine. For best compaction the shoe must hit the ground flat
10. To stop the tool, bring the throttle to the idle position and switch off.
11. If you have any questions, ask your superintendent.
12. Should the tool be malfunctioning in any way remove it from service and tag it out.

Ladders

Safe Work Practice

Scuka Enterprises regards ladders as essential equipment which is used in the day-to-day work on our Jobsites. Scuka employees and workers are trained and supervised when using ladders to prevent falling and potential injuries.

The Ladders Safe Work Practice includes the following Do's and Don'ts of safe ladder use:

DO'S

- Abide all CSA Z11-2018 standards and OH&S regulations.
- Choose the appropriate ladder for the task.
- Ensure your work area is free of scraps and materials.
- Perform an inspection before use.
- Set up the ladder on an even surface.
- Ensure you are protected by guardrails or a fall protection system when working at heights.
- Face the ladder and maintain three-point contact by keeping two hands and one foot, two feet, and one hand on a ladder.
- Use by only one person at a time under normal conditions of usage.
- Secure all extension ladders.
- Ensure a fall protection system is used when work is being done at a place from which a fall of 3 m (10 ft) may occur.
- Tag and take out of service any ladder that has defects or is broken or bent.

DON'T'S

- Use a ladder that is cracked, split, worn, or has broken rails, braces, steps, or rungs.
- Use the wrong ladder for the job.
- Step on the top two rungs. Or stand on the top.
- Set up a ladder on an uneven surface such as angled on the stairs or uneven ground.
- Use a household grade ladder.
- Carry tools and materials up.
- Walk facing away from the ladder.
- Use a ladder that wobbles with loose or bent hinges and hinges spreaders.

Hazards

Falling from a ladder can cause serious injury to a worker. Hazards that may increase the change of falling include:

1. Workers are not held, tied off, or otherwise secured to the work area.
2. The ladder is wet, icy, or slippery, and workers lose their footings on rungs or steps.
3. Workers do not hold on to the ladder properly when climbing.
4. Workers take unsafe positions such as leaning out too far or standing facing away.
5. Ladders are kept in service with defects and are unstable.

6. The weather changes to rain, snow, and high winds.
7. The wrong height or type of ladder is used for a task.
8. Workers are carrying tools and material up the ladder.
9. Lack of training and inexperience using ladders.

Control Measures

Elimination	• Change in the job tasks and scope of work.
Substitution	• Change the location of the task. • Use a different type and size of a ladder. • Use scaffolding. • Use a work platform.
Engineering	Fall Protection System • Fall protection systems must be used as per OH&S regulations for working at heights. A worker must wear a full-body harness with a lanyard and energy absorber tied off to independent fixed support whenever the worker may fall more than 3 meters (10 feet) or is working above operating machinery or hazardous substances, regardless of the possible fall height. Guardrails • When working on a deck with guardrails, the ladders are elevated above the guardrails' effective height; additional guardrails must be installed, or a personal fall protection system must be used. Stairs • When working on stairs with a ladder, use a temporary work platform, stairs platform, or ladder extender to alleviate the risk of falling. Control Zone • Create a control zone using red danger tape to isolate and restrict access into the work area, which prevents injuries from falling objects on workers below or walking into the ladder. Safety Monitoring • A safety monitor system is a system in which a trained worker is designated to monitor work activities in a control zone to ensure that work is done to minimize the potential for a worker to fall. • Only workers directly required for the work at hand will be inside the control zone • The safety monitor must ensure the work activity in the control zone is performed following the fall protection plan and in a manner that minimizes the potential for a worker to fall.

	• The safety monitor can assist the worker by handing tools and materials to the worker.
Administration	• All workers working at heights must be certified with fall protection training. • Train all Scuka employees and subcontractors on the Safe Work Practice and Safe Job Procedures for ladders and working at heights. • Read, understand and follow all manufacturer requirements for all fall protection equipment and ladders.
Personal Protective Equipment	• PPE for a fall protection system can vary per task. Fall protection equipment used on the Jobsite including anchors, carabiners, full-body harness, rope grab, choker, door jam anchor, lifeline, safety net and retractable lifeline. • Basic PPE is required on all Scuka Jobsites; hard hat, high vis vest, CSA approved footwear and protective clothing.

Safe Job Procedure

The Canadian Standards Association (CSA) Standard Z11-12 recommends different lengths for different step ladders' ratings or grades.

Grade	Description of Grade	Maximum Length
1AA	Construction and industrial use; special duty with a load rating of 170 kg (375 lbs)	3.6 m (12 ft)
1A	Construction and industrial use; extra heavy-duty with a load rating of 136 kg (300 lbs)	6 m (20 ft)
1	Construction and industrial use; heavy-duty with a load rating of 113 kg (250 lbs)	6 m (20 ft)

Step Ladder

1. Fill out a Field Level Hazard Assessment to analyze your tasks, conditions, and hazards.
2. Choose the appropriate ladder for your task.
3. Inspect your ladder for defects if found defective tag-out and return to Scuka Head Office.
4. Clear your work area of materials, cords, scraps, and garbage.
5. Use only in the fully opened position with the spreader bars in the locked position.
6. Set up on level ground support for all four of the side rails.
7. Set up and position the step ladder to ensure good ergonomics.
8. Maintain three points of contact when climbing.
9. Face the ladder when ascending and descending.
10. Use a ladder bucket or tool belt to hold tools and materials.
11. Do not leave tools or materials at the top of the ladder. These items can fall if the ladder is moved.

Extension Ladder

1. Fill out a Field Level Hazard Assessment to analyze your tasks, conditions, and hazards.
2. Choose the appropriate extension ladder for your task.

3. Set up a **fall protection system** if working at a height that is 3m (10ft) above a surface.
4. Inspect the extension ladder for defects if found defective tag-out and return to Scuka Head Office.
5. Clear your work area of materials, cords, scraps, and garbage.
6. Set up and place the ladder feet so that the horizontal distance between the feet and the top support is 1/4 of the ladder's working length. The ladder will be leaning at a 75-degree angle from the ground.
7. Raise and lower ladders from the ground. Ensure that locking ladder hooks are secure before climbing.
8. For access to an elevated work surface, erect ladders so that a minimum of 1 m (3 ft) extends above a landing platform. **Tie the top at support points.**
9. Secure the extension ladder in place to ensure the ladder's stability during access to or egress from the elevated work surface. **Brace or tie off the ladder near the base**; if there is no structure to tie off to, use a stake in the ground.
10. Leave all tie-off devices in place until they must be removed before taking the ladder down
11. Use the man lift or bucket and rope pulley system to get materials or tools to the elevated work area. Further, another worker can pass up materials and tools to the worker using the ladder. **(do not carry materials up or down the ladder).**
12. Maintain three points of contact when climbing.
13. Face the ladder when ascending and descending.
14. Take mini-breaks during your work process to stretch and rest.
15. Takedown and store your ladder in the tool crib after use.

Emergency Response Plan

When a worker falls off a ladder, serious injury may occur. Quick response and first aid intervention are critical in saving the worker's life.

1. **Survey the accident scene** and ensure it is safe to enter. (check for falling objects, take down the ladder and look for hazards that may cause harm).
2. **Call for help!** Call on the radio for the Site Safety Attendant or OFA3 Attendant. Relay the location, time, and distance of the fall and the nature of their injuries.
3. Inform the Site Superintendent of the incident
4. Kneel and hold the injured worker's head evenly between both hands with elbows anchored to the ground to support the cervical spine.
5. Wait and reassure the injured worker until the OFA 3 attendant can take over care.
6. The OFA 3 attendant responds and provides life-saving or first aid interventions.
7. **Call 911 if the injuries are severe**. For minor injuries, the injured worker will be treated at the scene and driven to the hospital by their onsite supervisor.
8. Have a worker go and meet the ambulance.
9. Provide accurate information to the Scuka Supervisors for the accident investigation.
10. Assist in conducting an incident investigation on Procore.

Ladders - Extension Ladder Procedure

Job Steps

1. Check for obvious damage on the ladder, making sure that all rungs, supports and side rails are present and in good condition free of cracks, bends and other defects.
2. Check that the ladder is properly rated for the load you will be applying.
3. Look above to make sure there is no overhead power lines in the vicinity.
4. Ensure the ground is level where the ladder will be set up with firm ground beneath the feet.
5. Position your ladder so that when set up it is at a 4:1 ratio.
6. Plant the bottom on the ladder in place and secure it in place with a block so it cannot slide out.
7. With the ladder planted securely use the rope to pull the upper half of the extension ladder to the required height.
8. Always make sure that the top of the ladder is three rungs past the level you are climbing up onto.
9. Secure the ladder at the top so that it cannot pull away at the top using rope or tie wire.
10. When climbing the ladder always maintain three points of contact, climbing with nothing in your hands.
11. Only one person at a time should be climbing or descending the ladder. Ladders have weight rating and two workers immediately exceeds the weight rating.
12. Use a bucket and rope to bring tools up or use the zoom boom.
13. If anything is unclear or you have questions, ask your superintendent.
14. Should the ladder be damaged in any way remove it from service and tag it out.

Ladders - Step Ladder Procedure

Job Steps

1. Check for obvious damage to the ladder, making sure that all rungs, supports and arms are present and in good condition free of cracks, bends and other defects.
2. Check that the ladder is properly rated for the load you will be applying.
3. Ensure the ground is level where the ladder will be set up with firm ground beneath the feet.
4. Open up the ladder by pulling the two sides apart and lock the spreader arms into place.
5. Make sure to position your ladder so that the work being done is in front of you. This will make you the most stable with the best body ergonomics.
6. When climbing the ladder always maintain three points of contact, climbing with nothing in your hands.
7. Climb and descend the ladder while facing the ladder.
8. Never climb higher than the third rung from the top so that the ladder does not become top heavy and unstable.
9. Never leave any tools or materials at the top of the ladder. These can fall off and hurt workers.
10. If anything is unclear or you have questions, ask your superintendent.
11. Should the ladder be damaged in any way remove it from service and tag it out.

Lock Out/Tag Out Procedure

Why:

In the event that a tool or piece of machinery/equipment is not operating in the manner that the manufacturer specs describe it should be removed from service until it is repaired. When tools are sitting on the shelf untagged either on the jobsite or in the tool crib, it is assumed that they are operational and should be expected to function for the intended purpose. When tools are assumed operable, but then found defective, it becomes very inefficient and wastes a lot of resources. To manage tools that require repair, we use a tag out or tag and lock out procedure.

When:

This is to be done immediately upon noticing a tool is defective or unsafe.

Who:

Whoever is using the tool is responsible for reporting the defect to the site supervisor and following through with the lock out/tag out policy.

Mobile Equipment

1. If possible, safely park the machine where it will not obstruct access to the site or building for other equipment or pedestrians.
2. When parked ensure that all parts are in a lowered position i.e.: boom or bucket on ground, and the machine is stationary and cannot move unexpectedly.
3. Remove keys from ignition and attach a defective tag (red tag) to the machine on the joystick or steering wheel so as to be obvious as well as to the keys.
4. Tags should describe the issue with the equipment, the date, and name of person tagging out the equipment.
5. Any repairs should only be done by qualified and authorized personnel or a qualified company only.
6. Until repairs are completed and safe operation is restored, tagged equipment should not be operated for any reason.
7. Once equipment is repaired and safe operation has been restored the tag may be removed and the equipment returned to service.

Tools

1. When a tool malfunctions or becomes unsafe to operate, it needs to be repaired prior to it being used again.
2. If the repair is something of a simple nature such as a faulty cord end, that can be repaired quickly on site by a knowledgeable person and returned to service. Larger sites will generally have a cord repair kit on site.
3. If the defect is not known or is of a more complicated nature, the tool needs to get tagged out as defective. Tags should be visible and conspicuously attached to the tool, so it is easily identified as unsafe. Tags should describe the issue with the tool, the date, and name of person tagging out the tool. The Site Superintendent must be notified so that they can arrange next steps as identified below.

4. It can then either be dropped off at the applicable repair depot if it is certain it is worth repairing or the more preferred option is that it be brought back to the tool crib and placed in its designated location. Then a picture should be sent to Dan with a brief explanation or the defect.

5. The tool will then be assessed and repaired if warranted.

6. Any repairs will only be done by qualified and authorized personnel or companies only.

7. When repaired the tool will be brought back to the tool crib and will be placed in its designated area. Dan will send out a picture to the sites to indicate the tool is back in service. Any tag out tags will be removed.

Mobile Equipment

General Discussion

A common phrase heard in Canada is “the pedestrian has the right of way”. This leads to a very dangerous mindset. While it may be true that in law the pedestrian has the right of way, in terms of actual consequences it is the pedestrian who has the most to lose. The pedestrian may be right, but the pedestrian may also be “dead” right. As such, on Scuka sites, we teach a different outlook:

Anything that can kill you quickly

has the right of way

This phrase is one that anyone on a Scuka site, be it Scuka worker or subtrade worker will hear often. This phrase is intended to make it clear to workers that it is essential that they look out for mobile equipment, because it is they that have the most to lose. We of course direct operators to also keep a lookout**,** but this does not absolve the worker of their responsibility to work safely.

Safe Work Practise

Mobile equipment is commonly used on construction sites. Vehicles may be coming and going, deliveries of materials are often arriving and heavy equipment may be in use. Heavy equipment in particular presents a significant hazard to workers because:

a) The design of the equipment (skidsteer, excavator, rock truck, dump truck)may make it difficult for operators to see workers who are nearby;
b) The use of the equipment may entail repeated backing up (Skidsteer, dump truck).
c) The loads being carried may make it difficult to stop suddenly (rock truck, dump truck)
d) The equipment is extremely heavy, and any contact with a worker is likely to be fatal.

For these reasons the following safe work practises must be observed:

1. Workers must not move into the operating area of mobile equipment until they have made eye contact with the operator and received approval to do so.
2. Workers must give mobile equipment plenty of room, so that if the equipment should start or move suddenly the worker will not be harmed. This means allowing lots of room between the worker and the equipment.
3. Workers must not move into the path of mobile equipment.
4. All operators of mobile equipment must be qualified[13] to do so.
5. Operators of mobile equipment must always ensure that they have a clear, unobstructed work area.

[13] As defined by the Worksafe Occupational Health and Safety Regulations Part 1.

6. Operators must examine their equipment each day prior to use and thereafter, as required. Any deficiencies, defects or unsafe conditions shall be reported to the Supervisor or other authorized person.
7. Workers shall not operate mobile equipment unless they:
    a. have received adequate instruction and have demonstrated to a supervisor that they are competent to operate the equipment, and;
    b. are familiar with operating instructions pertaining to the equipment and have been authorized to operate the equipment.
8. Operators of mobile equipment are directly responsible for the safe operation of the equipment. They shall maintain full control of the equipment at all times and comply with all laws and regulations regarding the equipment.
9. Operators of mobile equipment must be alert to overhead hazards including overhead power lines.
10. Where vision is obstructed, operators of mobile equipment must not move the equipment until a spotter is in place to guide the equipment and warn other workers on site of any danger.
11. Operators shall not remain in the cab of any vehicle while loads are elevated over the cab unless adequate overhead guards are installed to prevent injury to the operator.
12. Operators of backhoes, or other similar equipment over an excavation where workers are present, shall not move that equipment with any material suspended from it, in such a way as to endanger the workers.
13. When materials and equipment are being transported, they must be secured to prevent movement of the load.
14. Workers shall not stand or sit on the side or the tailgate of any moving equipment.
15. Wearing of seatbelts, in all vehicles and equipment where they are provided, is mandatory whenever the vehicle or equipment is in motion.
16. The operator of mobile equipment is the only person allowed to ride the equipment unless additional approved seating is provided by the manufacturer.
17. When mobile equipment is parked or stored, parking brakes shall be set, wheels shall be blocked and all elevated devices (i.e. buckets, forks, etc.) shall be lowered to the ground or their lock position.
18. When any work is to be done under the elevated parts of mobile equipment, the parts shall be blocked, or otherwise secured to prevent injury to the worker.
19. Mobile equipment MUST NOT BE refueled with gasoline, propane, natural gas or other vaporizing fuels while:
    a. the engine is running;
    b. anyone is smoking in or near the vehicle, or;
    c. there is a known source of ignition present in the immediate area.
20. Operators are responsible for keeping equipment clean inside and out including windshields, rear view mirrors, etc.

**** Site Note – You do not have the right of way. Heavy equipment has the right of way. Anything that can kill you quickly has the right of way.**

Mobile Equipment, Pre-Start Procedure

Circle or walk-around checks on any piece of mobile equipment are necessary to ensure the unit is safe to operate both for the personnel and for the equipment.

Safe Work Procedure for Pre-Start Inspection

The Components to be checked include, but are not limited to:

1. Circle check for personnel in the cab area and around the vehicle/equipment
   - Check the cab area for other operators
   - Check for people who may be working around the vehicle/equipment
   - Walk completely around the vehicle/equipment, looking underneath and in the engine compartment.
2. Brake Lines
   - Visually check the brake lines for leaks. (Check for moisture on the brake line)
   - If you locate any leaks mark the vehicle out of service and notify your supervisor.
   - Do not operate a vehicle/equipment with brake leaks
3. Steering Assembly
   - Check the tie rod ends, pins and keepers, bell cranks, drag links, ball joints, steering rams and hydraulic hoses
   - Check that all the joints are tight and have little play
   - If there are any faulty conditions immediately notify your supervisor and mark the vehicle out of service.
4. Front Tires
   - Visually check the tires for deep cuts, separations and embedded rocks, nails, or any other foreign material
   - Check for tire bulges at the road surface which indicate low air pressure
   - Check for bulges in the sidewalls indicating damage.
   - Check the rims for cracks and breaks
   - Check the valve stems for wear and cuts
5. Front Wheel Lugs
   - Check the front wheel lugs each day
   - If there are broken or loose wheel lugs, mark the equipment out of service and notify your supervisor.
6. Front Suspension
   - Check the front suspension for bottoming out
   - Check that all fastening devices are tight and in place
7. Fluid Levels
   - Check all the fluid levels at the beginning of the shift with the equipment on level ground
   - Refer to the manufacturer’s requirements to ensure the proper procedure is followed
   - If the fluid levels in any areas are found to be on the add mark or below it, take steps to add the appropriate fluid.
   - Do not operate the equipment until the fluid level is brought up to an appropriate operational level

8. Fluid Leaks
    - Look for fluid leaks while checking the fluid levels. There may be fluid lines or gaskets that are leaking
    - Make a visual check when the engine is running to see if any fluid is dribbling or running down the side of the engine block or any other areas
9. Fan Belts, Blower Belts, Alternator Belt, etc.
    - Check that all the belts are in place, tight and in good condition
10. Air Tanks
    - Main Air Tank
        - Drain the tank at the beginning of each shift
        - Take caution when draining air tanks because of the sludge and water that comes out
        - Tanks should be drained until clean air is visible
    - Air Application Tanks
        - Drain the tanks at the end of each shift
        - Check all air lines for any damage or deterioration during the check on the air tanks

11. Hoist Rams
    - Visually check the hoist rams to ensure that the hoist anchor pins and keepers are in place
    - Check the condition of the hydraulic hose and look for leaks
    - Report any concerns to the supervisor
12. Main Frame
    - Visually check the main frame for cracks
    - Report any problems to the supervisor
13. Lights
    - Turn on all equipment lights to see if they are working properly:
        - Headlights
        - Clearance lights
        - Back up lights
        - Retarder lights
    - Replace faulty lights
14. Glass
    - Check that the windshield, windows and mirrors are clean and free of cracks
15. Handrails and Ladder
    - Check the condition of the handrails and ladder
    - Look for loose handrails or rungs
    - Report any problems
16. Wheel Chocks
    - Ensure that the truck is equipped with two wheel chocks mounted in a readily accessible place
17. Seat Belts
    - Check that the truck has seat belts
    - Use them
18. Fire Extinguisher

- Check that the piece of equipment is equipped with adequate fire extinguishers in good condition
- Replace faulty fire extinguishers immediately

19. Back Up Alarm
    - Check that the back up alarm is working correctly

Office Safety Procedure

Purpose

The purpose of this safe work procedure is to help protect workers from injuries and to ensure the employer is aware of the potential and existing hazards in the office environment.

Responsibilities

The Owner is responsible for providing safe equipment and maintaining that equipment as specified by the manufacturer.

The supervisors are responsible to facilitate and/or provide proper instruction to their workers on protection requirements and training.

The workers are responsible to:

1. Ensure you are familiar with emergency evacuation procedures.
2. Ensure that all electrical cords are in good condition and are not overloaded.
3. Ensure fans/space heaters are used to manufacturer's' specifications.
4. Ensure floors and aisles are kept clear and not cluttered.
5. Ensure that only one drawer of the filing cabinet is open at a time and that drawers are closed when not in use.
6. Ensure proper types of fire extinguishers are available.
7. Ensure that handcarts and trolleys are used properly when transporting materials of a heavy nature.
8. Operate the microwave according to manufacturer's' specifications.
9. Ensure the photocopier is maintained according to manufacturer's' specifications.
10. Ensure coffee makers are used according to manufacturer's' specifications.
11. Ensure chairs are in good repair.
12. Ensure rugs are kept clean and in good repair – free of tripping hazards.
13. Ensure the paper cutter blade is placed in the closed locked position.
14. Ensure all loose clothing is tied back when using paper shredder.
15. Notify your supervisor if you observe anything that presents a hazard in the office unless you are able to immediately remedy that hazard

Paslode Cordless Nailer Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Hearing Protection where appropriate, Safety glasses where appropriate.

Job Steps

1. Check for obvious damage on the tool. Use the proper oil and maintain our tools.
2. Load a Fuel cell and battery into the tool. **See manufacturer's operating manual**.
3. Load the nails by pulling the follower handle back to the rear lock position. Insert a strip of nails and release the follower by pushing on the button.
4. Have a good steady work platform.
5. Make sure no one is directly in your line of fire.
6. **Hand placement is very important.** Keep your free hand back at least double the length of the fastener when nailing wall plates to studs.
7. Make sure your nailer is level and pointing straight at your material. Have a firm grip on it as it will recoil a bit when you fire a nail.
8. Make contact with the framing hammer and the material you want to nail. The work contact element tip will depress. When the tip has depressed, squeeze the trigger to fire a nail.
9. If anything is unclear or you have questions, please ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
10. Should the tool be malfunctioning in any way remove it from service and tag it out.

Pneumatic Nail Gun Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Hearing Protection where appropriate, Safety Glasses where appropriate.

General

Pneumatic Nail Guns are Dangerous. Many carpenters have shot themselves with their own nail gun. It is extremely painful when this happens. In virtually every case where this happens complacency is the cause.

Job Steps

1. Inspect the tool before connecting to an airline. Determine the type of firing system (Sequential or Contact/Bump firing) that is used by the nail gun and confirm that the safety system is in place and untampered with.
2. Check for correct air supply and pressure before connecting the tool. Oil the tool as recommended by the manufacturer.
3. Check to ensure that tool is properly connected and that the safety mechanism is operating correctly. Only trained and experienced workers shall operate the pneumatic nail gun.
4. Always handle the tool as if it contains fasteners. Only use fasteners which were designed for the gun.
5. Ensure that the mechanical linkage between the work contacting element and the trigger is enclosed.
6. Always operate the gun at air pressure recommended by the manufacturer. Never operate the gun at higher than recommended pressures.
7. Always ensure that the airline connected to the gun is in good condition and that it has free movement throughout the work area.
8. Always maintain your balance and footing while operating the gun. Never overreach.
9. Do not point the gun at yourself or any other person. Do not rest the tip of the gun on any part of your body. Do not put your finger on the trigger until you are ready to fire a nail.
10. Never depress the trigger unless the nose piece is directed onto a safe work surface.
11. Never transport the tool or load it with fasteners with the trigger depressed.
12. Always disconnect the tool from the air supply when it is left unattended or when it is being cleaned or adjusted.
13. Before clearing a blockage from the tool, disconnect the air supply and ensure the air is exhausted from the tool by directing the nose piece onto a safe work surface and depressing the trigger
14. When finished with the tool, always ensure that it is disconnected from the air supply, all fasteners have been removed from the gun and the air has been exhausted from the gun.

Rebar Cutter/Bender Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection, Gloves.

Job Steps

1. Check for obvious damage on the tool. Remove it from service and tag out if necessary.
2. Avoid any work exceeding the maximum capacities of this tool; 16mm bar or 5/8”
3. This tool is for bending and cutting rebar only. Do not use this tool for anything else.
4. Have a clean, flat working surface on the ground. This is not a handheld tool.
5. Turn the lever in the direction of the arrow mark and open cover. **See manufacturer’s operating manual.**
6. Set the setting dial at the cut position, (clockwise turn)
7. Set the rebar to be cut on the lower cutter.
8. When the rebar is set, make sure that either the reaction stopper A or B is hitched to the rebar.
9. Keeping your hands away from the cutting operation squeeze the trigger once to make your cut.
10. If the switch trigger is released in the middle of cutting the cutter can come to a stop at the halfway position, jamming the rebar in the unit. If this happens you can pull the trigger switch again. You can also free the bar by bringing the upper cutter back to the home position by turning the setting dial to the RETURN position and pulling the trigger again keeping fingers and hands away from the cutting operation.
11. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer’s safe operating manual in the site office.
12. Should the tool be malfunctioning in any way remove it from service and tag it out.

Remote Control Operation of Lifting Equipment

Task
Operating a crane or hoist using a remote control system.

Scope
The purpose of this practice is to protect workers from risks associated with the remote operation of a hoist or crane. The remote operation of a crane or hoist is a specialized task that involves experience and technical instruction. The lifting of loads creates a risk that must be carefully managed.

Commissioning and Decommissioning
When operating a crane, hoist or Manitou using a remote control the operator must ensure the main unit is parked safely with the outriggers securely placed, using landing pads where necessary.

Operators shall be familiar with and comply with the hoist and crane operations safe work practice and procedures as well as the fork/hook MK50 lifting attachments safe work practise where that item will be used.

Safe Work Practice
- Only trained and authorized personnel shall operate hoisting equipment.
- Operators shall confirm that the lifting equipment is placed so that it will not damage surrounding materials, vehicles or buildings.
- Operators shall confirm that appropriate control zones are in place to protect workers from overhead hazards.
- The operator shall not attempt operation while they themselves are moving around. Operate or walk but not both.
- The maximum distance away from the lifting equipment at which an operator is allowed to operate it remotely is a distance equal to the reach of the equipment.
- Operators must have a second battery charged and ready to change in the event the remote control device's battery runs out of power.
- Operators shall regain manual control and restart the machine should the Manitou engine shut off.

Safe Job Procedure
1. Turn on the remote.

2. Confirm that the remote has adequate battery power to function.
3. Initiate a connection with the lifting equipment
4. Confirm that a connection has been established with the lifting equipment.
5. Trigger the horn on the lifting equipment to alert those around you that you are starting it up.
6. Start the engine of the lifting equipment.
7. Confirm through remote operation that you have control of all the necessary functions to perform the lift.
8. Conduct the lift, placing yourself in a position where you can observe the materials being lifted.
9. In the event the remote loses connectivity with the lifting equipment or is otherwise rendered incapable, the operator is to attend to the lifting equipment to assume manual control.

Respiratory Protection Procedure

General

Wood dust and formaldehyde are classified as a group 1 carcinogen by the International Agency for Research on Cancer. Wood dust and formaldehyde are released when wood products including plywood, particle board, MDF and similar products are cut or sanded. Silica dust is released when concrete products are cut, cored or broken. Silica dust exposure can lead to cancer and silicosis.

Responsibilities

Supervisor Responsibility: Is to ensure proper training and instruction is given to workers so they can select the right equipment and follow manufacturer's specification for safe use.

Workers Responsibility: Is to follow the manufacturer's specifications for safe use and follow the Scuka Enterprises Ltd safety manual as well as WorkSafeBC guidelines.

Planning

Ask yourself these four questions:

1. Is the job likely to create dust?
2. Is the job in a well ventilated, or poorly ventilated location?
3. What equipment do I need for maximum reduction in wood or silica dust?
4. What PPE do I need and who else am I going to affect in the area?

For all tight-fitting face masks, you must be clean shaven to achieve a good seal. A fit tested half mask or full mask with a P100 or equivalent filter is the bare minimum protection against silica. Measures must always be taken to decrease the amount of airborne silica. Wet cutting, or a dustless vacuum attachment are preferred methods.

Safe Work Procedure – Dust Environments

1. Consult the BCCSA silica control tool to have a complete list of acceptable control measures for silica.
2. Remove the mask from storage, clean it with antiseptic towel.
3. Let it dry.
4. Adjusting the face piece to fit and make a good seal is very important. There should not be red marks on your face due to the mask being too tight. It is pointless to have it too loose as it won't be effective in protecting you from dust.
5. When you have adjusted the facemask, you should be able to breathe normally and easily. If inhalation is a struggle this indicates the filters require replacement
6. Test the mask fit before use. Take both filters off and place both hands over the holes and try to exhale.
7. When you exhale no air should leak out of your nose section or the sides.
8. Reconnect the filters and begin your task.

9. When your task is done clean the mask and place it back in its storage bag.

Saws - Circular Saw Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection.

Job Steps

1. Check for obvious damage on the tool and maintain our tools.
2. Confirm that the blade guard is on the tool and works properly before you plug it in.
3. Adjust the blade for the depth of your cut before you plug it in. **See manufacturer's operating manual.**
4. Make sure your material is free of nails or screws. Nails and screws can cause kickback and damage to the blade.
5. Make sure your material is set up so that it will not bind the blade as you cut.
6. Avoid cutting very small stock.
7. Contain all loose clothing, long hair or jewelry so that it won't get caught in rotating equipment.
8. Have a good steady work platform, with a clean work area
9. Plug your saw into a GFI plug and make sure the cord does not create a tripping hazard to other workers.
10. Hold the tool firmly and in a well-balanced position against the work surface.
11. Pull the trigger, allow the blade to get up to speed and then begin your cut.
12. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
13. Should the tool be malfunctioning in any way remove it from service and tag it out.

Saws - Gas Cut-Off Saw Procedure

Personal Protective Equipment: Hard Hat, Safety Glasses, Hearing Protection, Full Face Shield, Long Pants. Silica protection is also to be used if you're cutting concrete.

Job Steps

1. Check for obvious damage on the tool and maintain our tools.
2. Check that you have the proper cutting blade for your task. Different blades are used for concrete, steel or asphalt. Refer to the manufacturer's manual for changing the blade or adjusting the guard of the blade.
3. Have a clear and stable work area. Keeping your cutting blade away from obstructions, yourself and other workers.
4. Where possible set up a barrier to contain sparks or debris.
5. Contain all loose clothing, long hair or jewelry so that it won't get caught in rotating equipment.
6. Starting steps: Place the saw on flat level ground. Pull the choke out and have one hand on the front handle.
7. Lock the saw into the starting position, place one foot behind the saw and make sure you have a good stable balanced position.
8. Pull the starter cord with a strong brisk pull until the engine starts. Slowly release the cord.
9. Once the engine is running give it some gas to release the start lock and let it idle to warm up.
10. If you are cutting concrete, you must have and use a wet cut attachment or other means of protection from silica.
11. Know your surroundings so that you don't create a hazard for another worker
12. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
13. Should the tool be malfunctioning in any way remove it from service and tag it out.

Saws - Mitre Saw Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses, Hearing Protection.

Job Steps

1. Check for obvious damage on the tool and maintain our tools.
2. Before plugging it in, confirm that the blade guard is on the tool and is working properly. Check the blade for obvious defects and confirm it is the correct size.
3. Make sure your material is free of nails or material that the blade will not cut through.
4. Make sure the saw is on a level space and is secure.
5. Contain all loose clothing, long hair or jewelry so that it won't get caught in rotating equipment.
6. Have a good steady work platform, with a clean work area.
7. Plug in your saw into a GFI plug and make sure it's not a tripping hazard to other workers.
8. Support the material on both sides of the cut.
9. Have a good steady working position.
10. Squeeze the trigger and allow the saw to get to operating speed, then begin your cut.
11. When your material is less than 6 inches wide use a push stick to hold the material.
12. Avoid cutting very small stock. It can become a projectile.
13. If anything is unclear or if you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
14. Should the tool be malfunctioning in any way remove it from service and tag it out.

Saws - Table Saw Procedure

Safe Work Practice

Scuka Enterprises Ltd. uses table saws regularly in the building process. All Scuka workers and subcontractors are required to work within the confines of WorkSafeBC Regulations and Guidelines.

Hazards

Table saws can cause serious injury. There are many woodworkers who have lost fingers to a table saw. The hazards of a table saw include sharp rotating blades, kickbacks, bent over or prolonged awkward body position, dust, debris and projectiles.

Control Measures

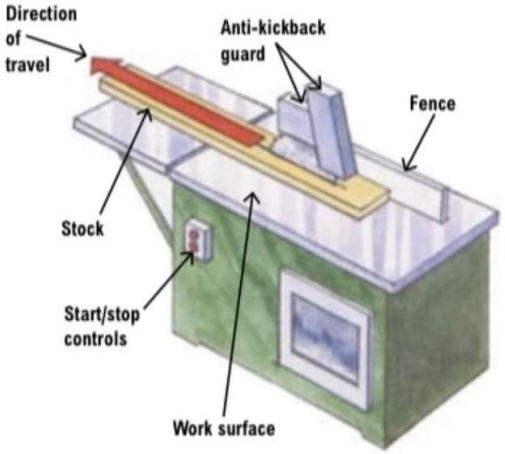
Elimination	• Change the job task and scope of work to eliminate the use of a table saw.
Substitution	• Change the location of the task to isolate dust exposure. Outside, low traffic area and isolated room. • Use a less dangerous tool for the task.
Engineering	Dust Control: • Respiratory Protection PPE and HEPA filter vacuum attachment. • Create a control zone using red danger tape to isolate and restrict access into the work area to minimize exposure for other workers to dust. • To ensure the worker is not distracted or bumped by other workers. House Keeping • Keep a garbage can close by for cut offs and cleaning. • Have a broom and dustpan available. • Dispose of wood in the wood bin if available. Safe Storage: • Turn off, unplug and replace or position guard. • Lockout if necessary.
Administration	• Training and supervision for New Workers. • Train all Scuka employees and subcontractors on the Safe Work Practice and Safe Job Procedures. • Read, understand and follow all manufacturer requirements.

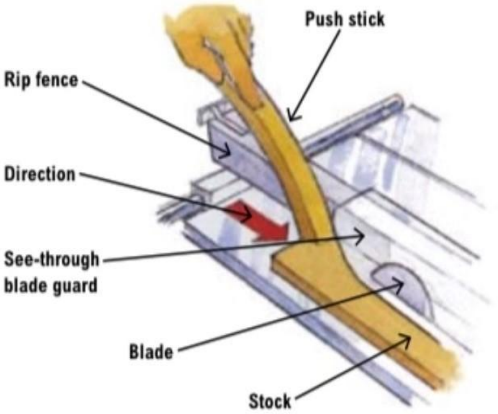
Personal Protective Equipment	• Basic PPE is required on all Scuka Jobsites; hard hat, high vis vest, CSA approved footwear and protective clothing. (no loose sleeves when using the table saw.) • Specialized PPE includes respiratory equipment (earplugs and earmuffs), eye protection (safety glasses, goggles and face shields), respiratory protection (dust masks and respirators), HEPA filter vacuum attachment.

Safe Job Procedure

Table Saw

1. Confirm that you have appropriate training to operate the table saw.
2. Set up the table saw according to manufacturer recommendations.
3. Perform a tool inspection, looking for obvious damage, wear and tear. If the saw is in an unsafe condition tag it out and report it to your supervisor.
4. Ensure the blade is clean, sharp, and properly set to cut freely.
5. Ensure all guards and guides are in place and working properly. Do not use the table saw for freehand cuts.
6. Set up the work area to have enough room for your material on the other side of the table saw.
7. Wear basic PPE and specialized PPE for the task. (safety glasses, earplugs and respiratory protection). Make sure that loose clothing, long hair or jewelry is contained.
8. Isolate the area if you are cutting hardie panel or cement board that contains silica dust. Set up a HEPA filter vacuum attachment.
9. Check your stock to make sure there are no knots that might break, or screws or nails that may damage the blade.
10. Raise your saw blade about 1/8 inch higher than the thickness of the stock that is being cut.
11. Push the start button, let the saw reach full operating speed, then start your cut.
12. Use a push stick when cutting narrow stock.
13. Avoid cutting very small stock. Use a jig where necessary.
14. Use a bench or get the help of another worker when ripping long material.
15. Do not reach around or over the blade while it is running.





16. Turn off the table saw after you have completed your cut.
17. Turn the machine off and unplug from the power source before changing the blade or cleaning the table saw.
18. Clean up dust, debris and cutoffs and dispose of them appropriately. Use a brush to clean up.
19. If anything is unclear or you have questions, ask your superintendent and refer to the manufacturer's safe operating manual in the site office.

Guard Removal

1. If work cannot be completed safely with the guard in place, it may be removed.
2. Select an appropriate push stick, jig, and feather board to prevent your hands encroaching into the cutting area.
3. Complete the cut, then reinstall the guard on the table saw.

Emergency Response Plan

1. Immediately turn off the table saw.
2. Cover injured body part and apply pressure to slow the bleeding.
3. Call for help! Report injury to Site Safety Officer or attending First Aid Attendant.
4. Site Safety/ First Aid Attendant responds to injury. For minor wounds, walk to the safety office to report injury and for treatment. For major wounds or amputation, sit down, apply pressure and call for help.
5. Arrange transport to the walk-in clinic for treatment of minor wounds.
6. Call 911 for major bleeds or amputations. Pick up the amputated body part and wrap it in moist gauze, place it in a plastic bag and put it on ice for transport to the hospital.
7. Isolate the area for investigation and blood clean-up. Follow Bloodborne pathogen SWP/SJP.
8. Fill out an incident report on Procore. Report to Scuka CSO.
9. Discuss at morning toolbox, weekly safety meeting and JHSC meeting.

Scaffolding Procedure

General

Scaffolding creates immediate potential for falls. It is essential that scaffold be properly erected according to manufacturers guidelines with the direction of a competent person. Scaffold must be regularly inspected to confirm that it continues to be stable and safe. Rolling scaffold creates a potential for sudden changes in the angle of the scaffold.

Safe Job Procedure

1. Erect scaffolding in accordance with the Workers Compensation OH&S Regulations and Manufacturer's recommendations. Return damaged components to the supplier for repair.
2. Scaffolding must always be placed on solid footing. Mud sills are to be used where scaffolding is placed on the ground.
3. Any scaffold system, having a height exceeding three times its minimum base dimensions, must be secured to the structure, or secured by other appropriate means, in order to ensure the stability of the scaffold.
4. Scaffolds with work platforms 3m (10 ft.) or more above floor level must have guardrails, intermediate rails and toe-boards.
5. Examine each scaffold plank before use. Use manufactured laminated wood or metal planks designed for use in scaffolds. High quality (SPF grade 2 or better) 2” x 10” planks may also be used but these must be at least two planks wide.
6. Scaffold planks shall only be used to hold workers where those planks are placed on the load bearing members of the scaffold. Planks placed on ladder rungs shall not be used for any loading.
7. The height of any freestanding tower or rolling scaffold must not exceed three times its minimum base dimension, unless the scaffold is securely tied or guyed to prevent overturning.
8. Where outriggers are fitted to increase the minimum base dimension, they must be installed on both sides of the scaffold structure.
9. The wheels of a rolling scaffold must be locked when workers are required to work on scaffolds at heights in excess of 3m (10 ft.) above floor level.
10. If the platform height exceeds 2 times the minimum base dimension no worker shall remain on the scaffold while it is being moved.
11. No worker shall remain on a rolling scaffold, while it is being moved by his own efforts, if the platform height exceeds 1 1/2 times the minimum base dimension.
12. Access to the platform must be by means of a fixed vertical ladder or other properly designed access.
13. Scaffold should be inspected before use each shift. Use of a tag system is recommended.
14. Where egress of a building will be obstructed by the scaffolding temporary hoarding should be built to protect personnel from falling debris if no other egress is available.

Silica Procedure

Scope

Scuka Enterprises has a duty to protect workers from silica exposure on our worksites. Studies show that when common construction work tasks involving sanding, drilling, chipping, grinding, cutting, sawing and sweeping of concrete and concrete products are conducted without using dust controls, workers are exposed to airborne silica concentrations far above the occupational exposure limits. Effective controls are available to protect workers from harmful exposure.

A combination of control measures will be required to achieve this objective. We commit to being diligent in our efforts to select the most effective control technologies available, and to ensure that the best practices, as described in this ECP, are followed at our worksites.

Health Hazards

Crystalline silica dust can cause a disabling, sometimes fatal disease called silicosis. The fine particles are deposited in the lungs, causing thickening and scarring of the lung tissue. The scar tissue restricts the lungs' ability to extract oxygen from the air. This damage is permanent, but symptoms of the disease may not appear for many years.

A worker may develop any of three types of silicosis, depending on the concentrations of silica dust and the duration of exposure:

- Chronic silicosis—develops after 10 or more years of exposure to crystalline silica at relatively low concentrations
- Accelerated silicosis—develops 5 to 10 years after initial exposure to crystalline silica at high concentrations
- Acute silicosis—develops within a few weeks, or 4 to 5 years, after exposure to very high concentrations of crystalline silica

Initially, workers with silicosis may have no symptoms; however, as the disease progresses, a worker may experience:

- Shortness of breath
- Severe cough
- Weakness

These symptoms can worsen over time and lead to death.

Exposure to silica has also been linked to other diseases, including bronchitis, tuberculosis, and lung cancer.

Employers have a duty to protect their workers from silica dust exposure on construction projects. Studies show that when common construction work tasks involving the sanding, drilling, chipping, grinding, cutting, sawing, sweeping, and blasting of concrete and concrete

products are conducted without using dust controls, workers are exposed to airborne silica concentrations at levels far above the occupational exposure limits. Long-term or heavy short-term exposures to airborne silica dust can cause a disabling, sometimes fatal lung disease called *silicosis*. Crystalline silica dust (e.g., quartz dust) is also a carcinogen.

This document sets out the Scuka Silica Exposure Control plan, and has the elements required by the Occupational Health and Safety Regulation for an Exposure Control plan (ECP) as follows:

- What is silica?
- Purpose of the ECP
- Responsibilities
- Risk identification, assessment, and control
- Education and training
- Safe work procedures
- Health monitoring
- Documentation

Appendix A is a table that can be used as a risk assessment tool and an aid for making decisions regarding engineering controls and personal protective equipment (including respiratory protection). The table is divided into

Tasks—Different work activities, such as grinding, chip hammering, and abrasive blasting
Control methods—Recommended practices for isolating the work area (barriers and enclosures), local exhaust ventilation, and wetting methods
Personal protective equipment—Recommended respiratory (and other) protection for different work activities (including air purifying respirators, pressure demand respirators, and disposable coveralls)
Comments—Other information that might be important, depending on the engineering controls and personal protective equipment that are selected for the project.

For example, when grinding concrete walls, the recommendations could include

Erect a barrier to prevent entry into the work area by unprotected workers.
Use grinders with local exhaust ventilation.
Use full or half-face air purifying respirators (depending on the nature of the work).
Use eye protection, which must be worn with a half-face respirator.
Wear disposable coveralls (depending on the nature of the work).
Always consider using hearing protection when powered equipment is used.

What is Silica?

Silica is the second most common mineral on earth and makes up nearly all of what we call “sand” and “rock.” Silica exists in many forms—one of these, “crystalline” silica (including quartz), is the most abundant and poses the greatest concern for human health.

Some common materials that contain silica include:

Rock and sand

Topsoil and fill
Concrete, cement, and mortar
Masonry, brick, and tile
Granite, sandstone, and slate
Asphalt (containing rock and stone)
Fibrous-cement board containing silica

Silica is so common that many workplace activities that create dust can expose workers to airborne silica. In British Columbia, the Occupational Health and Safety Regulation has established occupational exposure limits (OELs) for five different forms of silica; three of these are amorphous, and two are crystalline (quartz and cristobalite). The form most likely to cause serious problems for worker health is quartz.

How are Workers Exposed to Silica?

Silica is a primary component of many common construction materials, and silica-containing dust can be generated during many construction activities, including:

Abrasive blasting (e.g., of concrete structures)
Jackhammering, chipping, or drilling rock or concrete
Cutting brick or tiles
Sawing or grinding concrete
Tuck point grinding
Road construction
Loading, hauling, and dumping gravel
Demolition of structures containing concrete
Sweeping concrete dust

Unprotected workers performing these activities, or working in the vicinity, can be exposed to harmful levels of airborne silica.

Purpose of the Exposure Control Plan (ECP)

Due to the significant risk posed by respirable silica, it is critical that all personnel involved in operations that could potentially create silica dust take specific action to ensure that, as much as possible, a hazard is not created.

Employer Responsibilities

- Ensuring that the materials (e.g., tools, equipment, personal protective equipment) and other resources (i.e., worker training materials) required to fully implement and maintain this exposure control plan (ECP) are readily available where and when they are required.
- Providing a job specific ECP for each project, which outlines in detail the work methods and practices that will be followed on each site. Considerations will include
    - Availability and delivery of all required tools/equipment
    - Scope and nature of grinding work to be conducted

    - Control methods to be used
    - Level of respiratory protection required
    - Coordination plan
- Conducting a periodic review of the effectiveness of the ECP. This would include a review of the available dust-control technologies to ensure these are selected and used when practical.
- Initiating sampling of worker exposure to concrete dust when there are non-standard work practices for which the control methods to be used have not been proven to be adequately protective.
- Ensuring that all required tools, equipment, and personal protective equipment are readily available and used as required by the ECP.
- Ensuring supervisors and workers are educated and trained to an acceptable level of competency.
- Maintaining records of training, fit-test results, crew talks, and inspections (equipment, PPE, work methods/practices).
- Coordinating the work with sub-contractors to ensure a safe work environment.

Supervisor Responsibilities

- Obtaining a copy of the ECP from the employer, and making it available at the worksite
- Selecting, implementing, and documenting the appropriate site-specific control measures
- Providing adequate instruction to workers on the hazards of working with silica-containing materials (e.g., concrete) and on the precautions specified in the job-specific plan covering hazards at the location
- Ensuring that workers are using the proper respirators and have been fit-tested, and that the results are recorded
- Directing the work in a manner that ensures the risk to workers is minimized and adequately controlled
- Communicating with the sub-contractors to ensure a safe work environment

Worker Responsibilities

- Knowing the hazards of silica dust exposure
- Using the assigned protective equipment in an effective and safe manner
- Setting up the operation in accordance with the site-specific plan
- Following established work procedures as directed by the supervisor
- Reporting any unsafe conditions or acts to the supervisor
- Knowing how and when to report exposure incidents

Risk Identification, Assessment and Control

Our firm commits to developing knowledge and expertise about these controls, and to establishing policies/procedures to protect workers from harmful exposure and to minimize reliance on respirators. Effective engineering controls such as HEPA vacuum attachments and wetting methods, which control silica dust at its source, are readily available in B.C. These controls have been proven to reduce airborne dust levels significantly when selected and operated in accordance with best practices. We know that engineering controls alone do not

reduce airborne silica to safe levels; so in most cases other control measures, including respiratory protection, will be necessary.

The Occupational Health and Safety Regulation directs employers to use the best control technology available for the task and circumstance. If we take on a job that could release an unusually high amount of dust, and we are unsure of the adequacy of our control measures, we will conduct air sampling in order to ensure that control methods are effective.

We will reduce or eliminate worker exposure to silica dust by selecting a combination of the following controls listed in order of preference:

Elimination and substitution
Engineering
Administrative
Personal protective equipment

Elimination and Substitution

We recognize the importance of planning the work in order to minimize the amount of silica dust generated.

- During the project planning phase, we will advocate for the use of methods that reduce the need for cutting, grinding, or drilling of concrete surfaces (e.g., formwork planning).
- Whenever possible, we will schedule work when concrete is still wet, because we know that much less dust is released at that time.

Engineering

Our dust control systems may employ three well-established techniques:

- Local exhaust ventilation (LEV)
- Wet dust suppression (WDS)
- Restricting or isolating the work activity with barriers or full enclosures (this may be the only option where LEV or WDS is not practical or effective)

Local Exhaust Ventilation (LEV)

When LEV is used in our work, we will employ the following systems and safe work practices:

- Vacuum attachment systems to capture and control the dust at its source whenever possible.
- Dust control systems (used regularly and well maintained).
- Grinding wheels operated at the manufacturers' recommended rpm (operating in excess of this can generate significantly higher airborne dust levels).
- Retrofit shrouds or exhaust cowlings for corner grinding; use manufacturer-specified rpm speeds and a well-maintained HEPA vacuum.
- Diamond stone grinders, which allow for the use of a more efficient suction casing on the grinder, whenever practicable.
- HEPA or good quality, multi-stage vacuum units approved for use with silica dust. [The vacuum units should be capable of creating a target airflow of at least 70 cfm. This should achieve a face velocity at the shroud of about 1.3 m/s (260 fpm)—the higher the face velocity, the more dust captured at source.]

- Work planning, so that concrete grinding can be completed when wet (dust release can be significantly reduced).
- Good housekeeping work practices (for example, use vacuums with high-efficiency particulate air (HEPA) filters, or use wet sweeping).
- Train workers and supervisors on how to properly use and maintain the equipment.

Wet Methods for Dust Control

When water spray systems are used in our work, we will follow these safe work practices:

- Pneumatic grinders will be used instead of electric-powered grinders if water is the method of control.
- Pressure and flow rate of water will be controlled in accordance with tool manufacturers' specifications (for cutting saws, a minimum of 0.5 litres of water per minute [0.13 gallons/minute] should be used).
- When sawing concrete or masonry, we will use only saws that provide water to the blade.
- Wet slurry will be cleaned from work surfaces when the work is completed, using a wet vacuum or wet sweeping.

Barriers and Enclosures

When barriers or enclosures are used in our work, we will follow these safe work practices:

- The site foreman will determine the type and design of barrier or enclosure (based on the work activity and the work area) and ensure it is constructed in accordance with the workplan. Barriers may be simple hazard-flagging ribbon or more restrictive hoarding.
- We will use commercially available negative air units when constructing a full enclosure.

Administrative Controls

We will follow these safe work practices:

- Exposure control plans and the site risk assessment/workplan will be submitted to the general contractor prior to the start of work.
- We will establish procedures for housekeeping, restricting work areas, personal hygiene, worker training, and supervision.
- As part of our project planning, we will assess when silica dust may be generated and plan ahead to eliminate or control the dust at the source. We recognize that awareness and planning are key factors in the prevention of silicosis.
- Warning signs will be posted to warn workers about the hazards of silica and to specify any protective equipment required (for example, respirators).
- Work schedules will be posted at the boundaries of work areas contaminated with silica dust.
- Work that generates silica dust will be conducted after hours, when access to other unprotected workers cannot be restricted.

Site-Specific Exposure Control Plan

We will develop a site-specific exposure control plan to cover project-specific issues (e.g., scope of work, project location and site-specific hazards) to be kept available at the worksite.

Personal Protective Equipment

Respiratory Protection

- All workers who wear respirators will do so in adherence with our respirator program.
- Respiratory protection will be selected based upon the site-specific risk assessment.
- Only NIOSH-approved respirators will be used.
- Workers who wear respirators will be clean-shaven. Filtering facepiece respirators give little or no protection to workers with beards, and even a minor growth of stubble can severely reduce the effectiveness of respiratory protection.
- All workers who wear respirators will be fit-tested.
- Workers will be properly trained in the use of respirators, and a high standard of supervision, inspection, and maintenance will be followed.

Protective Clothing

Workers will wear protective clothing as specified in our task-specific safe work procedures to prevent contamination of worker clothing. Workers will not use compressed air to clean themselves, their clothing, or their equipment.

Education and Training

We will train all workers potentially exposed to airborne silica dust in the following:

- Hazards associated with exposure to silica dust
- The risks of exposure to silica
- Signs and symptoms of silica disease
- Safe work procedures to be followed (e.g., setup of enclosures, disposal of silica waste, personal decontamination)
- Use of respirators and other personal protective equipment (e.g., donning and doffing of personal protective equipment, and cleaning and maintenance of respirators)
- Use of control systems (e.g., LEV and wet methods)
- How to seek first aid (for example, the location and use of eyewash stations)
- How to report an exposure to silica dust

Records of training will be kept, as specified in the Occupational Health and Safety Regulation.

Safe Work Procedures

- Clean up after each operation is encouraged to prevent dust containing silica from spreading
- Compressed air or dry sweeping should be avoided when clearing a work area
- Compressed air should not be used for removing dust from clothing
- Workers exposed to silica should be provided with or have access to washing facilities equipped with clean water and soap and individual towels
- Silica dust on personal protective clothing and equipment should be removed by damp wiping or hepa vacuuming

- Contaminated personal protective clothing and equipment should be handled with care to prevent events disturbing the silica dust and the generation of airborne silica dust
- Washing facilities and laundering procedures must be suitable for handling silica contaminated laundry

Preparation of the Work Area

Warning signs should be posted in sufficient number to warn of the hazard. If it is an indoor operation signs should be posted at each entrance to the work area. The signs should display the following information in large clearly visible letters:

- There is a silica dust hazard.
- Access to the work area is restricted to authorized persons
- Respirators must be worn in the work area

Dust Control Measures

The generation of airborne silica-containing dust should be controlled with a mechanical ventilation system, wetting or the use of a dust collection system.

Product Specific Control Measures

The table below is provided by WorksafeBC as a guideline to appropriate dust control measures. The goal is to control the exposure of the worker, and a variety of measures may be utilized at any one time or situation. The table provided by WorksafeBC is a guideline document meant to provide assistance in planning with respect to a wide range of products. Another more product specific direction is that which is provided by the manufacturer of the product being used in the directions for use or MSDS documentation. The manufacturers knowledge is informed by extensive experience with the product, and the risk of civil liability in the event that exposure proves harmful to workers. They are highly motivated to avoid that liability. With this in mind, in terms of implementing controls for exposure, we can be informed by either the Worksafe table or the directions for use/MSDS.

Health Monitoring

Documentation

Records are kept of the following:

- All workers who are exposed to respirable silica dust while on the job
- Worker education and training sessions
- Respirator fit testing
- Equipment maintenance and repair
- Worksite inspections

The exposure control plan must be reviewed at least annually and updated as necessary by the employer, in consultation with the workplace health and safety committee or the worker health and safety representative.

Task		Control methods	Personal protective equipment	Comments
Grinding	Concrete interior/exterior walls, ceilings, and other flat surfaces	• Barrier or enclosure systems are required to restrict access to the work area. • Local exhaust ventilation (LEV)—use concrete grinders with HEPA vacuum attachments. • Grinding using wet method of dust control may be an option for specific circumstances. These circumstances must be listed on the site workplan. • Personal protective equipment.	• Half-mask air purifying respirator equipped with 100 series HEPA filters. • Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, when heavy work and poor dilution ventilation in work area. • Disposable coveralls are recommended for all grinding work and are required for stairwell and similar work. • Eye protection should be worn when using a half-face respirator.	• Vacuum systems equipped with HEPA filtration are the best control options for flat surface grinding. Ensure they are well designed for this type of work. A variety of suitable systems are readily available. • Very little visible dust should be present in the air. • Inspect the LEV unit frequently to ensure it is operating properly and the filters are not overloaded. • Hearing protection should be worn when using powered equipment. • When LEV and wet grinding systems cannot be used, dry grinding is permitted, provided a full enclosure system is constructed. Workers should wear full-face respirators and disposable coveralls.
	Window casements and other working areas with space or other constraints	• Barrier or enclosure systems are required to restrict access to and contain the work area. • Local exhaust ventilation (LEV) should be used when practical and effective. • Wetting methods of control can be used to supplement LEV or when LEV methods are not practical or effective. • Personal protective equipment.	• Half-face or full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters. • Eye protection should be worn when using a half-face respirator.	• Due to space constraints, it may not be possible to use an LEV-equipped grinder. • Water flow and the rpm of the grinder should be properly adjusted for the material being worked on. • Caution—water may produce a slipping hazard. • Hearing protection should be worn when using powered equipment. • Electric shock hazards need to be assessed and controlled when using wet methods (pneumatic grinders may be a another option).

Task		Control methods	Personal protective equipment	Comments
Grinding	Tuck point grinding	• Barrier or enclosure systems are required to restrict access to and contain the work area. • Local exhaust ventilation (LEV)—use specially designed tuck point grinders with HEPA vacuum attachments. • A specially designed oscillating tool is available for mortar removal. The tool can be purchased with an LEV attachment. • When LEV cannot be used, construct an enclosure including a negative air unit for dilution ventilation. • Personal protective equipment.	• Full-face air purifying respirator equipped with 100 series HEPA filters. • For challenging jobs where LEV or wetting control cannot be used, full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required. • Disposable coveralls should be worn for tuck point grinding work.	• Hearing protection should be worn.
	Enclosed areas (e.g., stairwells, elevator shafts)	• Full enclosure systems are required to restrict access to and contain the work area. • LEV—use concrete grinders with HEPA vacuum attachments. • Have dedicated grinders available with corner and flat-end shrouds. • Some wet grinding may be acceptable—the approved tasks must be listed on the site workplan. • Personal protective equipment.	• Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters. • If effective dilution ventilation within the work area enclosure cannot be established, then full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required. • Disposable coveralls must be worn • Hearing protection should be worn.	• LEV attachments for concrete grinders are not effective for certain non-flat grinding surfaces; therefore, full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required. • HEPA filters should be checked routinely throughout the work shift to ensure they are not clogged with silica dust.
	Floor grinding	• Barrier or enclosure systems are required to restrict access to and contain the work area. • Local exhaust ventilation—a variety of specially designed floor grinding systems are available equipped with HEPA filtration. These systems should be used when practical. • Wet grinding may be an option, provided acceptable slurry cleanup procedures are documented and followed.	• Half-face air purifying respirator equipped with P100 series HEPA filters. • Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, when working in an enclosed area and visible dust is observed. • Disposable coveralls should be considered. • Eye protection should be worn when using a half-face respirator.	• Portable shot blaster (floor smoothing) systems equipped with dust controls are available for floor grinding. • When large amounts of concrete are to be removed, filter systems should be more substantial (e.g., two vacuums connected in series—one large course filter system followed by a finer filter system). This will improve efficiency of the overall unit. • Vacuum systems will likely need to be cleaned and inspected frequently.

Task		Control methods	Personal protective equipment	Comments
		• Personal protective equipment.	• Hearing protection should be considered when using powered equipment.	

Task		Control methods	Personal protective equipment	Comments
Drilling	Walls, floors, and ceilings	• Barriers to restrict access to the work area. • Dust capture tool (e.g., a dust cap, LEV, or wetting method). • Personal protective equipment.	• Half-mask air purifying respirator equipped with P100 series HEPA filters. • Eye protection should be worn when using a half-face respirator. • Waterproof equipment where appropriate. • Hearing protection should be considered when using powered equipment.	• Hammer drills (variety of sizes) are available. Some units are equipped with local exhaust ventilation attachments (with HEPA filters). • A “dust cap” is a dust-capturing device that fits between the drill and the working surface (on the end of the drill). This is useful for overhead ceiling and wall drilling. A few different types are available. • When water is used as a dust control, the slipping hazard must be considered and managed. • Large concrete drills can be purchased that are equipped with a water spray attachment. Any wet slurry must be cleaned up when the work is completed.
Chip hammer-ing and jackham-mering	Walls, floors, and ceilings	• Barriers must routinely be established to restrict access to these work areas. Enclosure systems must be constructed when controls are not effective at reducing visible airborne dust. • Local exhaust ventilation (see comment) when practical. • Wet methods can be used and are often very effective for floor hammering.	• Half-face or full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, depending on the effectiveness of the controls. • Disposable coveralls should be worn when using full-face respirators. Waterproof PPE (and clothing) required when wetting methods are used.	• LEV could include a negative air unit or HEPA vacuum positioned near the working surface. These controls may be practical when chip hammering walls or other vertical surfaces or locations where water cannot be used. • Wet methods could include a portable airless sprayer, air mister, or hose sprayer. Slurry should be cleaned up when the work

Task		Control methods	Personal protective equipment	Comments
		• Personal protective equipment.	• Eye protection should be worn when using a half-face respirator. • Hearing protection should be considered when using powered equipment.	is completed to avoid secondary dust exposure hazard. • Caution—water may produce electrocution and slipping hazards.

Task		Control methods	Personal protective equipment	Comments
Cutting of concrete slab and concrete masonry products		• Barrier or enclosure systems are required to restrict access to and contain the work area. • Wetting methods of control can be very effective and should be used as a first choice when saw cutting concrete or concrete products (see comment). • LEV systems for concrete saws must be considered as a dust control when wet methods cannot be used. • Personal protective equipment.	• Half-face or full-face air purifying respirator with 100 series HEPA filters when wet or LEV controls used. • Disposable coveralls should be worn when using full-face respirators. • Eye protection should be worn when using a half-face respirator. • Hearing protection should be considered when using powered equipment.	• A water flow rate of 0.5 litres per minute (0.13 gallons/minute) is the recommended minimum for saws equipped with wetting controls. • Caution—water may produce electrocution and slipping hazards. • Slurry cleanup of interior surfaces must be part of the workplan.
Abrasive blasting of concrete	Exterior and interior concrete surfaces	• Barrier systems are required when dust can be controlled at the source. • Full enclosure system required when source control of dust cannot be established	• Full-face supplied-air helmet or hood respirator with a neck shroud, operated in continuous-flow mode. • Heavy waterproof protective clothing should be worn.	• Caution—water may produce electrocution and slipping hazards. • Slurry cleanup of interior surfaces must be part of the workplan.

Task		Control methods	Personal protective equipment	Comments
surfaces		• Blasting units that capture the dust (e.g., shot recycle systems) should be used when practical. • Blast systems that discharge a wet slurry shot should be used when practical. • Personal protective equipment.	• Hearing protection should be considered when using powered equipment.	
Cleanup	General cleanup	• Barrier to restrict access to and contain the work area. • Full enclosure systems can be used in dust-sensitive areas or when unprotected workers cannot be restricted from entering cleanup work areas. • Use vacuum (HEPA-equipped) when practical. • Wetting of dust prior to sweeping/scooping to be used when practical. • Planning for bulk/coarse debris cleanup followed by fine-dust cleanup can reduce the amount of dry sweeping. • Dust suppressants should be used if dry sweeping is the only practical option.	• Half-face air purifying respirator when vacuum systems or wet sweeping methods are used. • Full-face or powered air purifying respirator (PAPR) with P100 series HEPA filters for all other cleanup. • Eye protection should be worn when using a half-face respirator. • Hearing protection should be considered when using powered equipment.	• Dust-suppressing agents or absorbents are only marginally effective in minimizing airborne dust during sweeping. • Safe work procedures must be followed. • Rolling a seam of dust suppressant into fine, settled dust is reported to work better than a wide-spread scattering.

Task		Control methods	Personal protective equipment	Comments
Cleanup	Vacuum bag/filter changing and maintenance of LEV	• Barrier to restrict access to the work area. Signage marking an area removed from other workers may be adequate.	• Half-face air purifying respirator with P100 series HEPA filters. • Eye protection should be worn when using a half-face respirator.	• Safe work procedures must be established and followed. • Many vacuums are designed to collect the dust in a bag (rather than loose in the canister) that can be tied and disposed without generating airborne dust. Any new vacuum systems purchased should have this design feature.

Task		Control methods	Personal protective equipment	Comments
Cutting fibrous cement board		• A variety of dust control options are acceptable: ○ Fibre cement shears ○ Score and snap knife ○ Dust-reducing saws (circular and jig) equipped with HEPA vacuum ○ Wetting method if practical	• Half-face air-purifying respirator with N100 series HEPA filters when using saws. • N95 dust mask when using fibre cement shears indoors.	• A number of equipment manufacturers make saws (and saw blades) specially designed for cutting fibre cement board that can be purchased with HEPA. • Carbide score and snap knives have been shown to be an efficient and productive means of cutting fibrous cement board.

Notes

LEV = local exhaust ventilation

PAPR = powered air-purifying respirator

Spill Response Procedure

Purpose

To ensure that workers properly address a spill while remaining safe.

Personal Protective Equipment

Required PPE as established by reference to the SDS Sheet for the spilled chemical. This could include Safety Glasses and Face Shield, Proper footwear, Nitrile Gloves or Organic vapor cartridge for a respirator.

Hazards

Chemical exposure (skin exposure, eye dangers, inhalation) fire risks, environmental damage. Refer to the SDS sheets for further first aid measures and fire control.

Procedure

1. Get away. The first person to notice the spill or leak should get away from the immediate area of the spill in order to evaluate the situation without exposing him or herself. Obviously, this might not be needed if the nature of the spill is known and is minor.

2. Identify the spill to the extent possible. Do so without being at risk. This includes identifying:
   a) the type of material spilled (e.g. from the label);
   b) the extent of the spill and whether the leak has stopped;
   c) when two chemicals are involved are there possible reactions with each other;
   d) any unusual features such as foaming, odour, fire, etc.

3. Is this an emergency? Leaks that can be cleaned up by personnel on the spot or with some preparation are not emergencies. If you are not sure, treat it as an emergency.

4. Get help for all but very minor spills. In emergency situations, the amount of training determines the degree of participation in the cleanup. If there is any doubt about safely responding to a spill immediately call 911.

5. Identify the material spilled. Is it flammable, combustible, toxic and volatile, toxic or corrosive and nonvolatile, or an oxidizing agent?

6. Plan how to clean up the spill or leak by reviewing the label and SDS sheets for the product.
   - For fuel or oil spills use the snakes in the spill kit to contain the material, and then use the grey cloth pads or sorbent litter material to absorb the fuel or oil. Wear nitrile gloves if your hands are touching the cleanup materials.

7. Obtain the proper spill control materials. This would include materials such as sorbents, spark-proof tools, skimmers, booms, pillows, etc.

8. Put on appropriate personal protective equipment. This can include respirators, gloves, goggles, etc., as specified by the SDS sheets.

9. Stop the source of the spill or leak. This can include turning off the valve, patching a leaky hose, draining a tank, or up-righting a knocked over container of liquid.

10. Stop the spill from spreading. This can include use of appropriate absorbent/ containment materials such as booms, shutting down ventilation systems to keep gases and vapors from spreading, and plugging drains to prevent contamination of the water supply.

11. Clean up the spill using the appropriate sorbent materials and equipment. Remember, sorbents are primarily suited for cleaning up small spills and the residues left over after a large spill.

12. Dispose of contaminated materials properly. Contaminated spill control materials and disposable personal protective clothing may have to be disposed of as hazardous waste. Contaminated tools and non-disposable personal protective equipment should be safely decontaminated.

13. File an incident report. The incident report should be filed with the Safety Manager or Site Safety Coordinator for every spill, including non-emergency (incidental) spills.

Spill Kit Locations

Spill kits are located on each site, and are kept in the tools sea can or the first aid office. A spill kit can also be obtained from the Safety Manager.

Spill Reporting

- Spills of the following amounts must be reported to the Ministry of Environment at the Provincial Emergency Program telephone number below:
    - Flammables 100 litres or more
    - Hydraulic fluid (waste oils) 100 litres or more
    - Antifreeze 25 litres or more
    - All Spills of any amount into creeks or waterways

Emergency Phone numbers

Provincial Emergency Program Ph. **1-800-663-3456**
Poison Centre Ph. **1-800-332-1414**

Tools - Air Tools Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses where appropriate and Hearing Protection where appropriate.

Scope

This procedure applies to air tools including pneumatic grinders, chisels, cut off tools, impact wrenches and hammers. For information on pneumatic nail guns/framing nailers refer to the Pneumatic Nail Gun Procedure.

Procedure

1. Check for obvious damage to the tool. If the tool is in an unsafe condition tag it out and remove it from service.
2. Use the proper oil and properly maintain the tool. See the manufacturer's operation manual.
3. Check that attachments such as sockets, chisel bits, sandpaper, grinding wheels etc are the correct ones for the job, and that they are properly secured to the tool.
4. Check air supply lines for damage and compressor oil levels daily.
5. Connect your air tool to the airline.
6. Plug in the compressor and let it get to operating pressure.
7. Set the outlet pressure on the compressor to the level directed by the manufacturer of the tool. Do not exceed the recommended air pressure for the tool.
8. Making sure your air line is not a tripping hazard to other people or trades.
9. Have a good steady work platform when possible.
10. Keep your hands away from the working portion of the tool.
11. Make gradual contact with the tool and proceed with your task.
12. Allow the tool to spin down before setting it down.
13. If anything is unclear or you have question, please ask your superintendent and refer to the manufacturer's safe operating manual in the site office.
14. Should the tool be malfunctioning in any way remove it from service and tag it out.

Tools – Powder Actuated Procedure

Personal Protective Equipment: Hard Hat, Safety Vest, Safety Glasses and Hearing Protection.

General Principles [14]

- Only trained persons who are competent and authorized to do so shall operate powder actuated tools.
- Operators must have the manufacturers operating manual immediately available.
- Powder-actuated tools operate like loaded guns. Handle powder-actuated tools with the same respect and safety precautions as guns.
- Use the manufacturer's information as a guide for safe operation and maintenance of the tool.
- Wear safety glasses or goggles, or a face shield (with safety glasses or goggles) and a hard hat.
- Wear hearing protection.
- Brace yourself at all times when working on ladders or scaffolds to maintain good balance.
- Keep tools pointed in a safe direction. Never point powder-actuated tools at anyone.
- Load powder-actuated tools just before use. Do not carry loaded tools from job to job.
- Do not leave loaded powder-actuated tools unattended.
- Do not allow bystanders near the work. Shields for protecting workers against a possible ricochet may be necessary in the working area.

Maintenance and Care

- Clean and maintain tools according to the manufacturers' instructions.
- Check tools before use to ensure that they are in good working order.
- Tag defective tools "Out of service" and remove them from service until properly repaired.
- Store tools and cartridges in a locked container when they are not in use. Ensure that the tool is unloaded before storing it.

Safe Tool Use

- Use the tool at right angles to the work surface.
- Check the chamber to see that the barrel is clean and free from any obstruction before using the tool.
- Do not use the tool where flammable or explosive vapours, dust or similar substances are present.

[14] This safe work practise largely adopted from The Canadian Centre for Occupational Health and Safety OSH Answers Fact Sheet entitled “Powered Hand Tools – Powder-Actuated Tools” dated July 13, 2016.

- Do not place your hand over the front (muzzle) end of a loaded tool.

Safe Projectile (fasteners, nails, studs, etc.) Use

- Use only the projectiles (fasteners, nails, studs, etc.) recommended by the tool manufacturer.
- Ensure that the base material has no holes or openings and is of sufficient consistency to prevent a projectile from passing right through.
- Do not load a tool until immediately before use.
- Do not force a projectile into a working surface that is harder than the projectile being used. If the base material is unknown, use a hand hammer to drive the projectile, using it as a centre punch.

Safe Cartridge Use

- Use only cartridges recommended by the tool manufacturer.
- Check that the colour of the cartridge is appropriate for work being done. Charge cartridges are colour-coded to show their strength.
- Use the lowest power charge cartridge that will accomplish your task. Conduct a first trial by using the weakest or lowest strength charge cartridge.
- Provide adequate ventilation in confined spaces where powder-actuated tools are used.
- Hold the tool in the fixing position for no less than 5 to 15 seconds when a tool misfires. Keep the tool pointed in a direction that will not cause injury to you or others and unload a cartridge with extreme caution.
- Use caution when using tools near live electrical circuits. Make sure that the nails (etc.) do not enter live circuits buried or hidden in the base material.
- Keep cartridges in a lock up when not in use.
- Do not attempt to force a cartridge into a tool.
- Do not discard unfired cartridges carelessly.
- Do not carry cartridges loose or in a pocket. Carry them in the manufacturer's packaging.
- When not in use, the tool must be unloaded and the tool and loads must be securely stored. Power loads of different power levels and types must be kept in different packages. *Worksafe OH&S Regulation 12.55*

Top Wall Plate Procedure

Personal Protective Equipment: Hard Hat and Safety Glasses when required.

Overview

Worksafe Regulation 20.4 (1) requires that "suitable" (as defined by Regulation 13) work platforms must be provided where workers are working at elevations above a floor. Worksafe Regulation 13.14 specifies that a scaffold platform must be 20 inches wide. Worksafe Guideline 20.4(1) expressly provides that "*The top plate of interior or exterior walls, the top plate or top waler of concrete formwork, the tops of floor or roof joists, the bottom chord of ceiling trusses, or other elevated surfaces narrower than ... 50 cm (20 in) do not meet this condition. Accordingly, failing to provide or use suitable alternatives to such surfaces where practicable is a violation of section 20.4 of the Regulation*". With this in mind, no work is to be done when standing on the top plate of interior or exterior walls. With the help of our framing contractors we have developed these steps to comply with the WorksafeBC regulations and to greatly reduce the risk of falling when installing the floor system.

Job Steps

1. Pre-fabricate the hallways, corridors, balconies and decks floor systems on the ground. This includes sheathing it where possible.
2. Have a clear and clean work area to lessen trip hazards.
3. Have the exterior walls of the building protected with guard rails all the way around the building as each floor is erected. In many cases guard rail posts can be installed prior to standing the exterior walls. Stand walls, install guard rail posts, install the floor system, sheath the floors and place the guard rails as soon as there is a sheathed area at the exterior of the building, around the elevator shaft, stairwells etc.
4. When you are ready to install the interior walls use a step ladder that is the correct height so that work can be done without standing on the top two rungs. No one is to stand on the top wall plates to guide the prefabricated materials into place.
5. No one is to stand on top wall plates of interior or exterior walls to do layout. Layout shall be done off a step ladder that is the correct height to reach all areas without standing on the top 2 rungs of the ladder.
6. After the hallways, corridors and or balcony deck floor systems are installed and sheathed, land the joist material at the hallway corridor.
7. When you are ready to start spreading out the joists for installation, start from the hallway out. This is a two-person job. Lay the joists out flat as this will create your walking platform which is to be at least 20 inches wide. Walk on top of the joists that are laying down on their sides within 2 feet of any wall. Don't walk in mid span of any joist.
8. After all of the joists are spread out, start the install by nailing and blocking as required.
9. Install the sheathing from the hallway corridor working towards the edge.
10. Ensure the complete guard rail system is up as soon as there is an area to walk around on any floor edge.
11. Where a fall of 10 feet or more is possible (for example, at the perimeter of the building) guardrails must be in place, or fall protection must be worn.
12. If anything is unclear or you have questions, ask your superintendent.

Tower Crane – Erecting, Climbing, Repositioning or Dismantling Procedure

Synopsis

*Note, this Safe Work Practice and Safe Job Procedure applies to tower cranes including Self Erect Tower Cranes.

Prior to July 12, 2021 the process of Erecting, Climbing, Repositioning or Dismantling a tower crane was, for the General Contractor, a fairly simple one. The Superintendent picked up the phone and called the crane supply or maintenance company. That supply or maintenance company then showed up when they could and did the work. On July 12, 2021, that changed, when a tower crane that was climbing collapsed, causing the death of four construction workers and one nearby office worker. As a result of these events Worksafe has instituted new regulations with respect to any significant actions involving tower cranes. As well, General Contractors have been put on notice that their due diligence must dramatically improve.

Regulations

Following the incident referred to above WorksafeBC adopted new policies almost immediately. As well, the regulations themselves were amended in October of 2024. Those amended regulations can be found at sections 14.73.1 through 14.73.3 of the Regulations. WorksafeBC has established that these tasks must be performed by qualified personnel, performed according to manufacturers specifications and shall be supervised by a qualified supervisor. Additionally, WorksafeBC now requires that a Notice of Project be filed with WorksafeBC at least two weeks prior to undertaking any of these activities. As well, this Notice of Project must also be posted on site. It is essential that the General Contractor review these regulations well before undertaking any of these tasks.

What we have to do

Due diligence is what is key here to preventing a finding of liability against Scuka or Scuka personnel. That liability could be either civil or criminal in nature. The financial penalties could be crippling and there is a risk that people could be sent to prison. We are not expected to do the actual work on the crane. It's very specialized work. We are expected however to do all that a reasonable person could to confirm that the people that are doing the work are sufficiently qualified that they can **confidently** be expected to do the work successfully and safely. Please note that confident means exactly that. It does not mean hopeful, it means a significant level of assurance. It is for these reasons that the procedures below have been adopted. It is absolutely essential that the inquires referred to below are not only made but are documented. Similarly, the responses must be documented. Phone calls are absolutely not sufficient.

Safe Job Procedures

1. Prior to even considering who to use for supply and maintenance of a tower crane ask around in the local construction industry. If you're able to locate a crane of

similar dimension to the one you're planning to use see if you are able to find out who is supplying and servicing it. You are trying to find a company that is both experienced with tower cranes AND experienced with the type of tower crane that you will be using.

2. When you're close to selecting a company, interview them. Be specific and keep records. Ask them questions such as:
   a) How long have they been in the business.
   b) How many workers do they have and how long have those workers been with them.
   c) What experience do they have with major activities involving tower cranes.
   d) What experience do they have with tower cranes of the specific brand, size and configuration as the one that they will be supplying or working on?
   e) What training, certification and other qualifications do their supervisors and workers have?
   f) Do they have any history of violations with Worksafe?[15]
3. Review and understand the regulations referred to above.
4. When arranging for any of the stated activities, confirm that the Notice of Project referred to in regulation 14.73.3 has been filed and posted. Note that this Notice of Project is NOT the same as the one filed for the project generally. It is a stand alone Notice that pertains only to the activities planned for the tower crane.
5. Contact the company and confirm exactly who will be part of the crew conducting the work. Confirm also the identity of the supervisor. Ask for copies of their certifications and anything else that backs up their qualifications. Their prior experience can be their qualification.
6. As part of your contact with the company also confirm what experience they have with your brand and model of crane.
7. Obtain and review a copy of the "…work procedures established specifically for the workplace to ensure the safety of a person during the activity[16]". Note that this document is specifically required by the regulation. The company may have something they have used at previous sites. The regulation reads as being workplace specific so make sure that it is.
8. On the day of the work, confirm that the crew that shows up is the crew that you expected. Confirm that the supervisor is who you expected. Confirm that no one extra has shown up.
9. Make sure that a pre-job safety meeting has been held with their crew. Make sure you understand what is expected of Scuka personnel as far as setting up control zones.
10. On the day of the work, monitor the activity. Document that monitoring.

[15] You can and should look this up on the WorksafeBC website as well.
[16] This is drawn directly from the WorksafeBC regulations.

Traffic Control Procedure

Synopsis

Traffic Control is extremely hazardous and has been the source of many construction related fatalities. WorksafeBC has numerous requirements where workers are engaged in any activity that exposes them to traffic. These requirements are set out at part 18 of the WorksafeBC Occupational Health and Safety Regulations. Those requirements include obtaining a risk assessment, developing a written traffic control plan, and ensuring that any person assigned to traffic control has completed a WorksafeBC approved traffic control training program. For these reasons, Scuka Enterprises Supervisors and Workers are directed to contact their Project Manager where potential traffic control issues arise to determine whether the issue can be eliminated through different procedures, or whether the services of a professional traffic control company need to be contracted. If it is determined that the matter of traffic control cannot be eliminated, the procedure below identifies generally the steps to be taken.

Traffic Control in Kelowna

In Kelowna, if you intend to block a lane of traffic, you must make application to do so. You can ask a Traffic Management company to prepare the application for you, or you can complete it yourself. The form is entitled “Road Usage Permit Application – Traffic Impendence”. This form can be downloaded from the City of Kelowna website.

There is a requirement that you submit the application 5 days before you intend to impede traffic. At times they will shorten this requirement so if you’re late try anyway.

The application fee to the City of Kelowna is 75$. As part of submitting the application you must submit a Traffic Control Plan. The Traffic Control Plan is very specific and will entail a drawing or map of the area showing what traffic control methods will be utilized. Unless this is a very simple area it is best to have the Traffic Management Company prepare the Traffic Control Plan for you. By way of example only, as at February of 2025 the Universal Group (referenced below) will prepare a Traffic Control Plan with Risk Assessment for $250.00 but require a turnaround of 72 hours to do so.

What Company should I choose?

Traffic Management companies cover large geographical areas. Companies that work in this area include:

1. Fox Traffic Control Ltd. This is a Penticton based company but they do a lot of work in Kelowna, West Kelowna, and Vernon as well.
   Contact Carmen@foxtraffic.ca or go to www.foxtraffic.ca

2. Universal Group – This is a Langley based company but they also do a lot of work throughout the interior including Kelowna and Vernon. Contact (604) 444-3732 or email at info@theuniversalgroup.ca or visit their website at www.theuniversalgroup.ca
3. Keloka Traffic Management – This is a Kelowna based company. Contact them at (250) 980-0885 or email at info@kelokatrafficcontrol.ca or visit their website at www.kelokatrafficcontrol.ca
4. Central Interior Traffic Control Ltd. – They are based in Kaleden, and offer services in the South Okanagan, Princeton, Similkameen and Boundary Country. Call (250) 488-0860 or email at citcltd@shaw.ca. Their website can be seen at www.centralinteriortrafficcontrol.ca

What comes next?

Okay, you're hired a Traffic Management company. They've given you the Traffic Control Plan and you've got the permit from the City. You're all set right? Or… Even better, my subtrade has hired a Traffic Management company, or have submitted their own Traffic Control Plan, so it's their liability right?

No.

Traffic related damage, or injuries, tend to be very significant. When something goes wrong, everyone looks around at everyone else, including the Project Management Team, with a goal of assigning liability. It is not enough to just follow the steps and get the approval. After you have the approval and the plan is in place the flow of traffic, and of pedestrians, bicyclists, scooter riders, wheelchair users and anyone else going by must be at least regularly monitored. This monitoring must be documented. If you find that the Traffic Control Plan has children stepping out in the travelled portion of a roadway on the way to school there must be immediate changes. It is absolutely not sufficient to "just follow the plan".

Violence in the Workplace Procedure

Purpose

The purpose of this safe work procedure is to help prevent injuries due to workplace violence.

Responsibilities

Supervisors are responsible to facilitate and/or provide proper instructions to their workers on protection requirements and training. They are also to follow up on issues arising from violent behavior.

Workers are responsible to follow the procedures set out below. Workers are responsible to inform their supervisor of any violent or potentially violent interaction.

De-escalating a Negative Interaction

1. Interrupt the conversation firmly but politely.
2. Tell the person that you;
   Do not like the tone of the conversation
   Will not accept abusive treatment
   Will end the conversation if necessary
3. If the behavior persists, end the conversation.
4. Ask the person to leave the building or leave yourself.
5. If the person does not agree to leave, remove yourself from the scene and inform your supervisor immediately.
6. DO NOT re-engage with the person or interact directly or indirectly.
7. Advise other staff and have them leave the immediate area.
8. Let the supervisor call security or your local police where they determine this is necessary.
9. File an incident report and ensure appropriate personnel are informed.

Responding to an Abusive Telephone Call

1. Interrupt the conversation firmly but politely by asking the caller to use an appropriate tone or language.
2. Advise the caller that you will end the call if the caller does not stop using abusive language.
3. Advise your supervisor of the incident.
4. If the caller calls back, interrupt the conversation firmly, but politely. Advise the caller that you will transfer the call to your supervisor, if necessary.
5. Remind the caller that you will not accept abusive treatment or language.
6. Put the caller on hold and contact your supervisor.
7. Advise your supervisor that the caller is on hold.
8. Transfer the call to your supervisor.

In the Event a Member of the Public approaches in an agitated state

At times neighbours to Scuka projects may become unhappy or frustrated with either the actual factors associated with construction (Noise, dust etc), or potentially with the actual project itself

(for example, a halfway house being built in their neighbourhood). Scuka workers may be approached by those members of the public. Sometimes workers may simply encounter unstable persons who may be passing by. In most cases it will be sufficient to listen to the concerns of the person, advise them that Scuka takes their concerns seriously, and advise them that we will take what steps we can to address them.

If the member of the public seems particularly angry or upset it is wise to move the conversation to an area where other workers are present. This can often be accomplished fairly readily, using phrases such as “I wonder if we can walk this way, I want to hear more of what you have to say” accompanied by actually starting to walk to others. The person has come to speak with you, and it’s fairly likely they will move with you so that they can keep speaking.

Where a member of the public seems extremely angry, or is behaving erratically, it can be helpful to agree to the significance/urgency of their concern and take steps to immediately move the conversation to where others are present. Phrases like “I can see this is urgent, lets get this to people who can fix it right away”, coupled with immediately walking to others may be helpful.

Keep in mind, with both of the techniques above, you’re not asking for permission to move the conversation, you’re going to do it either way.

During opening and closing site

When opening or closing up Scuka sites it is possible that there will be only one worker on site, and that worker may be moving around buildings that are poorly lit until the lights can be turned on. This exposes the worker to an increased risk in the event that dangerous persons are present. Workers are instructed to take a flashlight with them when opening up and closing down sites. Workers are instructed to be alert to the possibility that persons may be on site. In the event that workers encounter persons who do not belong on site at these times workers are directed to exercise extreme caution. Steps include:

Make sure that an escape route is available

Have a cell phone working and available

Be certain of how many persons are there

Determine whether you will ask the persons to leave. * Note, the reaction of such persons may be entirely unexpected.

Determine if police or other co-workers should be contacted

Make sure that friends, family and co-workers have a general expectation of when you will arrive at site, and when you will go home, so that they can raise the alarm if you do not arrive as expected.

Determine if you need to take any action at all (It may be perfectly fine to do nothing, and wait for other trades/co-workers to arrive)

Working Alone Procedure

Purpose

The purpose of this safe work procedure is to improve the overall safety of workers who are working alone at low to moderate risk tasks. No worker should work alone at a high-risk (ie. Working at Heights) task. This procedure is not intended to apply to supervisory staff. Where supervisory staff have identified particular areas of concern in their working environment they are expected to take such reasonable precautions as they deem fit.

Responsibilities

The supervisors are responsible to facilitate and/or provide proper instructions to their workers on protection requirements and training. They are also to follow up on any issues arising from working alone.

1. The worker who is working alone is responsible to fill out the appropriate working alone form providing detailed information regarding their proposed location and expected time of work and tasks being conducted.
2. Check in with the designated contact provided on the working alone form on an hourly basis until work is completed.
3. Informing the designated contact when they leave the site.

If the worker has not contacted the designated contact at the expected time the contact will try to locate the individual, first by telephone, then by other means. If this is not successful emergency responders should be contacted.

Working at Heights Procedure

General

Scuka Enterprises Ltd. recognizes that a fall from heights, even low elevations, can and has resulted in severe injury or death on many occasions. We take fall protection very seriously. The Occupational Health and Safety Regulation requires workers to use a fall protection system where there is potential for a fall of 3 m (10 ft.) or more, or where a fall from a lesser height may result in serious injury. To effectively minimize or eliminate the risk of falling, Scuka implements the Fall Protection Hierarchy. The Fall Protection Hierarchy has four steps: guardrails/Mechanical barriers, fall restraint, fall arrest, and work procedures. Training, supervision and planning ensure Scuka employees and workers understand how to employ the steps effectively.

Practically Speaking

Most Commonly Identified Fall Hazards in each Area:

Hazards	Controls
Roof/each floor as the building goes up – fall from leading edge	Guardrails are to be installed at the earliest opportunity. Where guardrails are not yet installed, the fall protection methods set out below (Fall Restraint and Fall Arrest) are to be used.
Patios/Windows	Guardrails are to be installed at the earliest opportunity. Where guardrails are not yet installed, the fall protection methods set out below (Fall Restraint and Fall Arrest) are to be used.
Siding	Workers using scissor lifts located on an entirely flat solid surface are not required to tie off. Workers using other manlifts are required to be tied off at all times.
Scaffold use – installing windows or siding	All scaffolds are to have railings installed except that on the work surface side where the work surface is 12 inches or less away from the scaffold railings are not required.

Most Commonly Identified Type of Equipment to be Utilized:

Boom Lift

Frame Scaffold

Scissor Lift

Most Commonly Identified Type of Fall Protection System to be Utilized:

Standard Guardrails

Restraint Anchors (800 lb.)

Harness and Lanyard & Rope Grab

Self Retracting Lifelines

Arrest Anchor (5000 lb.) Barriers

Warning Lines

All of the processes set out below apply to any area where a fall of 10 feet or more may occur, or where the surface that a worker could fall on presents hazards more significant than falling on a flat surface (ex: Standing Reinforcing Bar)

1. Where scaffolding is being used, scaffolding shall be inspected on a daily basis. Railings shall be installed on scaffold, and toe kicks shall be installed on scaffold where there is a risk of objects falling on workers. Railings are not required at the work surface side if the scaffold is within 12 inches of the work surface. All scaffolding is to meet WorksafeBC requirements as set out in Division 4 of the Regulations.
2. Fall protection shall follow the WorksafeBC Hierarchy. Guardrails are to be installed as soon as reasonably practicable to the standard set out in the WorksafeBC guidelines. Where guardrails have not yet been installed or cannot be installed and the work surface is a very low slope or flat there shall be delineators and tape set up at least 6 feet back from any leading edge. Workers shall not go beyond that tape unless they are tied off as set out below. Workers shall not work on any object that creates a potential to fall beyond the 6 foot limit (ex: ladders) unless they are tied off as set out below. Workers must be tied off where there are no guardrails and the work surface is of significant slope.
3. Where Tie off is being used workers shall use either a self-retracting system or a rope and rope grab system with an expansion lanyard. Workers shall wear a safety harness designed for the task. Ropes and fastening equipment shall be equipment intended for the task. Tie off shall be to approved roof anchors or to structural components well able to meet the Worksafe 800lb minimum standard for fall restraint and 5,000 lb minimum standard for fall arrest. Tie off is to utilize vertical lifelines/self-retractors. Horizontal lifelines may be used where specifically approved. All anchor points are to be established using best practises to avoid swing fall. All tie off is to adopt Worksafe hierarchy of fall restraint first, fall arrest second and to be worn accordingly.

The Working at Heights Safe Work Practice includes the following Do's and Don'ts.

DO'S

- Read, understand and follow The Safe Work Practices and Safe Job Procedures for working at heights.
- Read, understand and follow the manufacturer's manual for all fall protection systems.
- Conduct an FLHA to analyze tasks and conditions that can lead to a falling hazard.
- Request and assist in filling out a fall protection plan for your task.
- Inspect your fall protection equipment before commencing work.
- Understand and use fixed barriers such as handrails and guardrails.
- Understand and use fall and travel restraint systems to limit the worker's ability to reach an unguarded edge.
- Understand and use a fall arrest system to ensure that they will not hit the surface below if a worker falls.
- Check anchors and tie-off points before starting work.

- Establish and maintain control zones where workers are working above to ensure the fall area is secure.
- Cover all holes and ensure they are marked and secure.
- Determine the fall hazard areas on the Jobsite.
- Tag out equipment after it has been used in a fall.

DON'T'S

- Use fall protection equipment that is in disrepair.
- Start work without inspecting your equipment.
- Work at an unguarded edge.
- Work at a height of 3m (10ft) or more without a fall protection plan.
- Work in or walk through an established control zone.
- Use fall protection equipment that has been involved in fall.
- Use guardrails or railings as anchor points.
- Tie your fall protection equipment to roof hatches, roof vents, metal chimneys, TV antennas, small pipe and ducts, stair or balcony railings, permanent access ladders, air-condition units.
- Tie onto the same anchor as another worker.

Specific Steps: Safe Job Procedure

1. Fill out an FLHA identifying the tasks/conditions, hazards and control measures.
2. Discuss which fall protection system will be used to complete the task.
3. Create a fall protection plan including the hazards, controls and emergency response plan.
4. Make sure all workers doing the work at heights have had training on fall protection and have been trained on the fall protection plan.
5. Inspect all fall protection equipment.
6. Choose a fall restraint or fall arrest system that suits the task. Install guardrails, handrails, anchors were applicable.
7. Establish control zones and safety monitoring where applicable.
8. Write the control zone on the High-Risk whiteboard at the main entrance to notify all workers of the Critical Task.
9. Ensure all equipment is installed and being used as the manufacturer intended.
10. Update the fall protection plan when there is a change in scope of work or location of the task.
11. Review and discuss the emergency response plan.
12. Train workers in ways to prevent or combat suspension trauma.

Theoretically Speaking

Control Measures

Elimination	• Change in the job tasks and scope of work.
Substitution	• Change the location of the task. (Ex. Do the work on the ground and then lift it into place) • Change the equipment being used.

Engineering

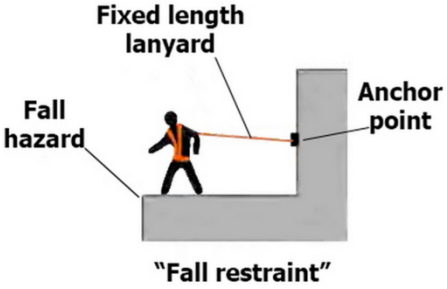
Fall Protection Systems

Guardrails

- Are required on a raised floor, open-sided floor, mezzanine, gallery, balcony, work platform, ramp, walkway, or runway that is 122 cm (4 ft) or more above the adjacent floor or grade level.
- Guardrails temporarily installed during the construction, demolition, maintenance or renovation of a work area must withstand a load of 550 N (125 lbs.)
- Guardrails shall consist of a top rail 102 cm to 112 cm (40 in to 44 in) above the work surface as well as a mid rail.
- Where a worker on stilts, ladders, or work platforms is elevated above the guardrails' effective height; additional guardrails must be installed, or a personal fall protection system must be used.
- Stairs with more than four risers must have continuous handrails on any open side of the stairway.

Fall Restraint System

- A fall restraint system is set up so the worker cannot fall lower than the surface or work area in which the worker is anchored.
- The vertical drop with a fall restraint system must be the total fall distance of 30 centimetres (1 foot).



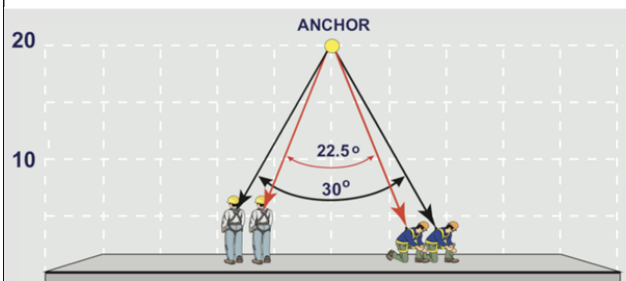
"Fall restraint"

- The rope length is just long enough to keep the worker from the unguarded edge of the work area.
- A fall restraint system should only be used where a worker likely can regain footing or otherwise self-rescue immediately after a slip or fall.

Fall Arrest System

- A fall arrest system prevents a falling worker from hitting the ground or any object below. It consists of a full-body harness attached to a lanyard and an energy absorber, which reduces some of the force exerted on the body when a fall is arrested. The system may include an anchor, connectors, a full-body harness, lanyard, deceleration device, lifeline, rope grab or suitable combinations.

There are five critical components of a fall arrest system, and if one component fails, the entire system fails. The components are addressed in a Fall Protection Plan. 5 Critical Components of Personal Fall Arrest:



In the diagram on the left, the 0° line is directly below the anchor. The anchor is 20 feet above the working surface.

The 30° lines define a work range of about 8 feet out from the anchor line (0°). The 22.5° lines define a range of about 6 feet from 0°.

For an anchor lower than 20 feet, the work range shrinks proportionately.

A worker anchored at or near the working

	• A – Anchor/Anchorage • B – Body Wear (full body harness) • C – Connector (lanyard) • D – Deceleration Device (Energy absorber) • E – Emergency Response Plan **Control Zones** • A Control Zone is the area between an unguarded edge of a building or structure and a safe distance of at least 2 metres (6.5 feet). • Red danger tape is set up at least 2m (6.5) in from the unguarded edge. **Safety Monitoring** • A safety monitor system is a system in which a trained worker is designated to monitor work activities in a control zone to ensure that work is done to minimize the potential for a worker to fall. • Only workers directly required for the work at hand will be inside the control zone • The safety monitor must ensure the work activity in the control zone is performed following the fall protection plan and in a manner that minimizes the potential for a worker to fall.
Administration	• All workers working at heights must have had fall protection training. • Train all Scuka employees and subcontractors to find and use the Safe Work Practice and Safe Job Procedures. • Read, understand and follow all manufacturer requirements for all fall protection equipment. • Write a fall protection plan for each task and update when the scope of work or location changes.

Suspension Trauma

There is a high risk of suspension trauma when a worker falls and is suspended by their harness with their legs dangling in a vertical position. Suspension trauma occurs as the blood pools in the legs, reducing blood circulation and depriving the brain of oxygen. Suspension trauma can result in serious injury to the worker, and death can occur in less than 30 minutes. Workers can do the following when suspended in a fall arrest harness to combat suspension trauma:

- Stand on the foot straps if the harness has them to keep the harness from cutting off blood flow to and from their legs. The improved circulation provides more time for rescue procedures.
- Continuously pumping the legs activates the muscles and keeps the blood circulating.
- Pushing off against a hard object, like a nearby building, helps keep the muscles active. As the worker swings away from the building, they will eventually swing back toward it and push off again.
- Utilize other objects (another rope or a ladder) to reduce the load that is compressed by the harness.

Working in Extreme Heat or Cold

Purpose

These procedures outline the responsibilities and requirements to enable workers and others to carry out work in extreme heat or cold without a risk to their health and safety so far as reasonably practicable.

Personal Protection Equipment

Wear specific PPE required on all Scuka sites: Hard Hat, High Visibility Vests, proper footwear and appropriate clothing for time of year and possible changing weather conditions.

Hazards

Heat Hazards

- dehydration, fainting, heat cramps, heat exhaustion, fatigue
- heat stroke (a life-threatening illness which requires immediate first aid and medical attention)
- heat exhaustion
- heat cramps
- worsening of pre-existing illnesses and conditions.
- skin rashes and burns

Cold Hazards

- hypothermia (a life-threatening illness which requires immediate first aid and medical attention)
- frostbite, loss of feeling in extremities

Hot or Humid Weather

- slow down the pace of work if possible
- provide an appropriate supply of cool drinking water for the activity.
- provide a cool, well-ventilated area where workers can take rest breaks
- implement work rotation strategies
- provide opportunities for workers who are not used to working in hot conditions to acclimatize (e.g. job rotation and regular rest breaks)
- ensure light clothing is worn to allow free movement of air and sweat evaporation
- use personal protective equipment and clothing (e.g. hats, sunblock)

Cold or Wet Weather

- limit handling of frozen or cold items to avoid hands losing feeling
- ensure warm and, if necessary, waterproof clothing (including hats and gloves) are worn
- provide opportunities for workers who are not used to working in cold conditions to acclimatize (e.g. job rotation and regular rest breaks)
- provide warm drinks
- reducing worker exposure to the cold, where possible

- reducing the time workers are in cold areas
- restrict to the shortest time period possible outside in the elements
- ensuring clothing suits the temperature and duration of activity and minimizes skin exposure to the cold (e.g. thermal clothing, gloves, hat etc.)
- watch footing for slippery surfaces

Heat related Illness

A range of medical conditions that can occur when the body cannot cool itself sufficiently in environments where there is a high temperature (e.g. summer), high humidity, high level of physical activity (e.g. manual labor) or excessive or impervious clothing.
Warning signs of heat-related illness include (but are not limited to):

- Flushed skin
- Mild to severe thirst
- Reduced or dark urine output
- Sweating
- Absence of sweating, dry skin
- Rapid pulse
- Fatigue
- Dizziness and fainting; collapse, seizures
- Headaches
- Nausea and vomiting
- Weakness
- Pale clammy skin
- Muscle cramps
- Hot red skin that looks sunburned
- Mood changes, irritability,
- Loss of consciousness mental confusion, disorientation

People are comprised of approximately 55-60% water. It is essential that we maintain our hydration in hot temperatures. For the purposes of being crystal clear, if workers are going through the day without peeing, they are dying. Urine should be clear or slightly yellow, never brown.
Where a worker shifts from sweating heavily to not sweating and having dry skin, or becomes confused or disoriented, it is likely that the worker has reached the point of having Heat Stroke. This is a critical medical emergency and immediate action must be taken.

Cold related Illness

Occurs when the body is unable to cope when working in environments where the temperature is low (which will be aggravated by wind, immersion in water and working in wet clothing). This can lead to a condition known as hypothermia.
Warning signs/symptoms of hypothermia include (but are not limited to):

- Numbness of extremities (hands/feet)
- Pale/blue skin
- uncontrolled shivering or shivering that stops inexplicably
- , Loss of fine motor skills
- Slurred speech or mumbling
- Slow, shallow breathing
- Weak pulse
- Drowsiness or very low energy
- Confusion or memory loss
- Loss of consciousness

Where a worker shifts to any of the symptoms beyond numbness of the extremities the worker has entered a state of hypothermia. This is a critical medical emergency and immediate action must be taken.

Heat Stress Exposure Control Plan (ECP)

RESPONSIBILITIES

Employer

- Identify and assess areas, tasks, and occupations where there is the potential for heat stress.
- Implement and/or provide controls (engineering, administrative, or personal protective equipment) to minimize heat stress.
- Provide training and education regarding heat stress, including early signs and symptoms of heat-related disorders.
- Maintain records of the heat stress assessments and worker training.
- Ensure that there is adequate first aid coverage and establish emergency procedures to deal with serious conditions such as heat exhaustion and heat stroke.

Managers

- Post heat stress hazard warning signs on site where the heat exposure limits could be exceeded if a worker was continuously exposed to heat.
- Ensure workers who are at risk of heat-related disorders are adequately educated and trained in the recognition of signs and symptoms of heat-related disorders and the responsibility to leave the hot environment if signs and symptoms of a heat-related disorder occur.

Supervisors

- Ensure that workers are made aware if there is a risk of heat stress in the area in which they are working.
- Ensure that workers maintain their exposure to heat within the permissible exposure limits.
- Provide and maintain personal protective equipment for workers where engineering and administrative controls are not possible to implement, provided the PPE provides equally effective protection against heat exposure.
- If personal protective equipment is provided ensure that it is worn, and that it is properly cleaned, inspected, maintained and stored.
- Provide and maintain an adequate supply of cool potable water close to the work area for use by heat-exposed workers.
- Remove the worker from the hot environment and provide treatment by a first aid attendant or a physician if a worker shows signs or reports symptoms of heat stress or strain.

Workers

- Adhere to all control measures or work procedures that have been designed and implemented to reduce exposure to conditions that could cause heat stress.
- Leave hot environments if signs or symptoms of a heat-related disorder appear.
- Report to your supervisor and first aid when you start experiencing heat related disorders.
- Monitor your co-workers for signs of heat-related disorder.
- Follow safe work procedures.
- Use or wear personal protective equipment that is provided.
- Report unsafe acts and conditions to the supervisor.

Joint Health and Safety Committee or OHS Representative

- Advise the employer on procedures and effective systems to deal with hot environments.
- Address worker issues regarding heat stress.
- Attend and cooperate in incident investigations and worksite inspections regarding hot environments and heat stress.

Heat Stress Hazard Identification

Scuka Enterprises on a site by site basis will conduct an ongoing heat stress hazard identification process to identify hazards associated with the environment, type of task being performed, and clothing/equipment required for the task that may expose the worker to a risk of heat stress.

Conditions, work areas and jobs/tasks will be identified that may put workers at risk. These will include:

- Environmental temperature conditions: areas with temperatures above 23°C.
- Jobs or tasks that require medium to high exertion or strength or continuous levels of exertion.
- Jobs or tasks that entail direct exposure to the sun or heat reflective components (concrete for example).
- Areas or occupations about which workers have expressed concern.
- Jobs that require a worker to wear equipment or clothing that increases risk of heat stress, including impervious clothing, hardhats etc.

Heat Stress Risk Assessment

Once it is determined which occupations, tasks, or areas should be monitored, the risk of developing a heat-related disorder will be evaluated using a risk assessment. The risk will be assessed using the following methods:

- News Reports and On-line Temperature Reporting Services will be consulted regularly. Where temperatures exceed 23°C it shall be presumed that there is a risk of Heat Stress.

- Workers will be inquired of and directed to report experiencing heat stress. Constant self monitoring will be instructed.

As temperatures exceed 23°C it shall be presumed that the risk of Heat Stress will continue to increase.

Where humidity levels are particularly high this shall be assessed as an increased risk factor.

Where factors referred to above result in the conclusion that workers are at significant risk of heat-related disorder this shall be recorded on any of:

a) Field Level Hazard Assessments

b) High Risk White Boards

c) Procore Observations

d) Safety Meeting Minutes

Interpretation of Results

Based on an ongoing assessment of the risk criterion noted above, Scuka Enterprises will implement appropriate risk controls to ensure that workers perform their tasks within WorkSafeBC acceptable limits.

The Action Levels and Exposure Limits Table (Table 1 below) provides an overview of the exposure limits for workers. If the results of the risk assessment show that a worker is or may be regularly exposed to an environment in excess of the heat action levels/exposure limits, Scuka Enterprises will implement a heat stress exposure control plan.

Exposure Limits listed in Table 1 determine the exposure limits for healthy, acclimatized workers.

Table 1 – Action Levels and Exposure Limits

Workload	Action Level for Unacclimatized Workers (2-hour time weighted average)	Exposure Limit for Acclimatized Workers (2-hour TWA)
Light	28 °C	30°C
Moderate	24.7°C	26.7°C
Heavy	23°C	25°C

Risk Controls

Scuka Enterprises will reduce workers' exposure below the heat exposure limits by implementing risk controls. When it is not practicable to eliminate the task or substitute it with another to achieve the same goal, engineering controls will be developed and implemented. If it is not practicable to reduce exposure below the heat exposure limits by engineering controls, then Scuka Enterprises will provide administrative controls and/or personal protective equipment.

Combinations of various control measures may provide the most effective protection from heat stress.

Engineering Controls

Reduction in metabolic heat production through reduction in workload

Redesign and/or mechanization of the task to reduce the work time and/or physical effort will reduce the metabolic heat load. For example, power tools, hoists, lift tables or other mechanized devices can be used to reduce manual labour.

Reduction in temperature and humidity

Reductions of air temperature and humidity may be achieved through local or general ventilation. The ventilation systems can be temporary or permanent and may include air conditioning.

Where possible hot air and steam produced by specific operations should be exhausted away from the working environment.

Increase in air motion

At temperatures less than 35°C, increasing air speed can help workers stay cooler by increasing both the convective heat exchange (the exchange between the skin surface and the surrounding air) and the rate of evaporation. In order to be effective, increased air speed, i.e. a fan, must be positioned to directly impact the worker.

When the air temperature is greater than 40°C, increasing air motion may actually increase heat stress.

Control of radiant heat

Radiant heat from the sun or any heat source can be reduced through shielding or insulating exterior surfaces.

Whenever possible, canopies should be provided over the work area to provide shading. Whenever possible, heat-producing equipment such as a furnace or boiler should be shielded.

Administrative Controls

Administrative controls attempt to minimize risks through work practices. They are relatively easy to implement, although they may not be the most cost effective. Administrative controls include the following:

Training

Training is a fundamental health and safety practice for those who may be exposed to a hazard such as heat stress.

A training and information program should include the following components and be reviewed annually:

- Knowledge of the hazards and potential health effects of heat stress
- Recognition of predisposing factors, danger signs and symptoms
- Awareness of first-aid procedures for heat-related disorders
- Employee responsibilities in minimizing heat stress
- Possible side effects of certain medications when taken in a hot environment
- Use of protective clothing and equipment

Determine Appropriate Work-Rest Cycles

A work rest cycle refers to the period a worker spends working in a hot or strenuous environment and the time spent in a rest or recovery area or performing a modified task in an area less exposed to hot temperatures or performing a task at a reduced pace. Appropriate work-rest cycles should be determined and scheduled based on worker direction and request and the need to allow adequate time for workers' bodies to cool. Workers will both self monitor and be monitored by their co-workers.

It is important to have cool areas, such as shaded or well-ventilated area, for breaks and rests. Showering or soaking in cool water, when possible, can cool the body very quickly.

An example of a work-rest cycle is provided in Table 1 below:

Table 1 - Example of Work-Rest Cycle

Work-Rest Regime (each hour)	Light Work	Moderate Work	Heavy Work
Continuous Work	30.0°C	26.7°C	25.0°C
75% Work - 25% Rest	30.6°C	28.0°C	25.9°C
50% Work - 50% Rest	31.4°C	29.4°C	27.9°C
25% Work - 75% Rest	32.2°C	31.1°C	30.0°C

If your worksite criteria match the above assumptions, use Table 1 as the work-rest cycle of choice. Supervisors are responsible for scheduling and organizing appropriate work-rest/work-work cycles.

Schedule work to minimize heat exposure

The following methods of minimizing worker exposure to heat will be used whenever possible:

- Hot tasks will be scheduled for the cooler part of the day (early morning, late afternoon or night shift) whenever possible.
- The path of sun movement will be determined and work will be performed in its shadows whenever possible.
- Where a crew of workers are performing tasks, job rotation will be implemented to allow workers to work in both hot and cool areas.
- Routine maintenance and repair work in hot areas will be scheduled for cooler seasons of the year whenever practicable.
- Extra personnel will be provided, when practicable, to reduce exposure time for each member of the crew.
- Workers will be permitted to set their own pace of work when practicable.
- If weather forecasts predict very hot conditions, non-urgent tasks will be postponed until the hot spell is over.
  Work hours may be reduced, or the work day may be scheduled to start earlier to avoid the heat of the day.

Initiation of a "Buddy" System

Individuals are less likely to notice their own symptoms; a buddy system approach reduces the risk of signs and symptoms going unnoticed. Workers should also buddy-up when travelling to remote locations or when entering extremely hot environments.

Decrease in metabolic heat production through reduction in workload

Metabolic heat may be decreased by reducing the work pace, work duration or the physical exertion required to perform the task. This can be achieved by increasing the frequency and duration of rest breaks, alternating or substituting heavy tasks with light tasks, increasing assigned staff so that more workers share the loads, and so forth.

Acclimatization

A gradual period of acclimatization to work in hot weather is recommended for new and other non-acclimatized workers. It generally takes 1 to 2 weeks to become accustomed to working in hot environments. This may happen gradually as spring temperatures warm into summer, however, sudden exposure to work in hot temperatures does not allow for adequate acclimatization and increases an individual's risk of heat-related disorders. There are two ways to acclimatize; one can either gradually increase exposures to work in hot environments, or one can reduce the physical demands of the job for one to two weeks. If a worker has health problems or is not in good physical condition, longer periods of acclimatization may be required.

Reduce use of heat generating devices

Where possible, eliminate the use of heat or steam generating devices.

Fluid Replacement and Work Practices

Cool water (10 to 15°C) will be made available to workers and they will be encouraged to drink small amounts frequently.

Supervision of Workers

Regular supervision of workers will reduce the possibility of a heat-related disorder going unnoticed in a worker. Supervisors should be aware of the signs and symptoms of heat-related disorders and should encourage workers to drink plenty of fluids.

Personal Protective Equipment

Preventative measures are focused on engineering and administrative controls. Personal protective equipment may be made available where engineering administrative controls are ineffective or where personal protective equipment is available that provides equally effective protection. Examples of personal protective equipment for heat stress include cooling hard hat pads, neck shades, and evaporative cooling vests.

Investigation Procedures for Heat Related Illness

Scuka Enterprises will prepare a first aid report in response to a worker reporting or suffering a heat-related disorder. The following elements may be included as part of that first aid report:

- Description of heat stress problems that have been experienced
- Possible hazards that caused the condition to occur
- Sources of heat stress in the location
- Determine whether the incident occurred on a day that was typical of previous recent weather conditions
- Description of clothing worn by the affected worker
- Confirm whether the worker had been instructed on heat stress, signs and symptoms and preventive action
- Description of risk controls that had been implemented on the worksite to prevent heat-related disorders
- Evidence of heat exposure measurements/risk assessments being conducted
- Review site documentation, and where appropriate, look for indications of prior heat stress problems

Record Keeping

Scuka Enterprises will maintain records of the following:

- Heat Stress Assessments as may be contained in site safety meeting documentation or Procore Observations
- Heat Stress Exposure Control Plans where they materially differ from the default plan herein.
- Worker Education and Training
- First Aid Reports prepared for workers experiencing a heat-related disorder.
- Heat Stress Program Review

Program Review

The Heat Stress Exposure Control Plan will be reviewed at least annually and updated as necessary, in consultation with the Joint Occupation Health and Safety Committee. The following elements will be included in the review:

- Hazard identification, risk assessment and controls
- Education and training
- Written work procedures
- Documentation