2011

Workplace Safety Booklet
CONSTRUCTION WORKERS

KITIGAN ZIBI ANISHINABEG

MORE INFORMATION REGARDING THE CONTENTS OF THIS BOOKLET CAN BE FOUND IN THE *KITIGAN ZIBI ANISHINABEG WORKPLACE SAFETY MANUAL.* PLEASE CONTACT YOUR DIRECTOR IF YOU WISH TO CONSULT THE MANUAL.

KITIGAN ZIBI ANISHINABEG WORKPLACE SAFETY BOOKLET FOR CONSTRUCTION WORKERS 2011.

The following document was prepared for the Kitigan Zibi Anishinabeg by Deborah Decontie. This document has been adapted to meet the needs of the Kitigan Zibi Anishinabeg based on the Canada Labour Code and Federal and Provincial regulations with regards to Work Place Safety. Unless otherwise stated, references made in this document are from An Act Respecting Occupational Health and Safety. This current document has incorporated existing material from the Brush cutting Health and Safety Plan prepared for the Kitigan Zibi Anishinabeg by Linda Dwyer-Commando. In addition, I wish to acknowledge RexForet in granting permission to the Community to use certain sections within this booklet.

Introduction

This booklet is intended for all employee who work on Construction Crews within the different projects for the Kitigan Zibi Anishinabeg.

This booklet addresses:

- rights and responsibilities of KZA Anishinabeg and its employees
- KZA safety disciplinary policy
- safety measures and preventative actions for construction workers
- KZA protocol for temporary closure of buildings
- emergency safety precautions
- first aid
- WHMIS

Responsibilities of the Kitigan Zibi Anishinabeg as an Employer

Safe Workplace Environment

A safe workplace environment is everyone's right and responsibility, regardless of his/her role or position within the Kitigan Zibi Anishinabeg. The KZA has an obligation to ensure that the health and safety of its employees are protected while they are working. This includes the proper installation and/or regular maintenance of:

(1) All KZA buildings and structures (including guards, guard rails, barricades and fences);

(2) All protective devices, machinery, equipment, tools, vehicles, and mobile equipment that is property of the KZA;

(3) Heating, ventilation and air conditioning systems within KZA buildings.

(4) In accordance with the Workplace Hazardous Materials Information System (WHMIS), the KZA will ensure that all hazardous substances are appropriately labeled. Material Safety Data Sheets (MSDS) will also be available to all employees who may be exposed to particular substances.

(5) Overall, the Kitigan Zibi Anishinabeg will ensure to provide:

- (i) Safe entry and exits to and from workplaces specifically during hours of work;
- (ii) First-aid facilities and health services, sanitary and personal facilities, and safe drinking water;
- (iii) Employees with information, instruction, training and supervision to ensure their health and safety at work;
- (iv) Occupational health and safety training for Safety Committee members;
- (v) Responses to employees who have reported hazardous circumstances for those circulating within the workplace;
- (vi) The necessary resources required for Safety Committees.

Safety Measures

Kitigan Zibi Anishinabeg will ensure to:

(1) Investigate, record, and report all accidents, occupational diseases, and other hazardous occurrences as well as keeping and maintaining accurate health and safety records.

(2) Adopt and implement prescribed safety codes and standards relating to fire safety and emergency measures.

(3) Adopt and implement measures to protect against violence in the workplace, from both internal and external sources.

(4) Ensure that the activities of every person granted access to the workplace do not endanger the health and safety of employees.

(5) Ensure that the Safety Officer conducts monthly inspections of all or part of the workplace so that the entire workplace in inspected at least once a year.

(6) Comply with oral and written direction by the Safety Officer.

(7) Respond in writing to the Safety Officer's direction or report when requested to do so.

Employee Rights

Under the Canada Labour Code, employees have three key rights: the right to know, the right to participate, and the right to refuse dangerous work.

The Right to Know

Employees have the right to know about foreseeable hazards within a work area and be provided with necessary information, instructions, training and supervision to protect their health and safety. Employees may also be granted access to employer reports pertaining to work and health place safety through the Health and Safety Committee or the Safety Officer.

The Right to Participate

Employees have the right to participate in identifying and/or correcting concerns in the workplace that may be hazardous to themselves or other employees.

The Right to Refuse Dangerous Work

Employees have the right to refuse work if there is a reasonable cause that harm could come to themselves or other employees because of:

(i) A dangerous workplace environment;

(ii) Using a machine or apparatus that may present a danger;

(iii) Performing an activity that constitutes a danger.

Employee Responsibilities

Responsibilities of All Employees

For my protection, and the protection of my co-workers, it is my responsibility to:

(1) Become aware of the safety regulations. I must respect these regulations as well as all health and safety procedures that have the ultimate goal of preventing accidents;

(2) Wear any individual protective equipment or clothing required for my job, and/or use any safety materials, equipment, or devices provided to protect me;

(3) Refrain from bringing family members to work with me, to ensure their safety and the safety of my co-workers.

(4) NOT consume or have in my possession any alcoholic beverages on the job site or while driving a vehicle, and to never arrive to work under the influence of alcohol or drugs;

(5) Pay close attention to fire hazards at all times;

(6) Use protective fire equipment and alarms that are installed in the case of a fire only;

(7) Keep my work area and environment clean and orderly;

(8) Avoid using tools, equipment or other objects that would put myself or my co-workers in danger;

(9) Realize that any person not respecting safety regulations may have disciplinary measures brought against him/her;

(10) Inform my supervisor immediately of any accidents that may or may not have caused an injury or damages to any equipment;

(11) Submit a medical certificate to my supervisor authorizing me to return to work following an injury or sick leave;

(12) Cooperate with management and other employees in an attempt to eliminate injuries;

(13) Report any injury, illness or property damage to the immediate supervisor as soon as possible;

(14) Report hazardous conditions or unsafe work practices to the supervisor;
(15) Know the location of all first aid equipment on the job;
(16) Refrain from horseplay, fighting or practical jokes while working;
(17) Operate only the equipment for which you are trained and authorized;
(18) Follow proper lifting procedures. (Back straight, knees bent, load close to body);
(19) Attend safety meetings when appropriate.

Responsibilities of Construction Foremen

In addition to adhering to the safety measures for all employees, it is my responsibility to:

(1) Assure that all safety and health rules, regulations, policies and procedures are understood and observed;
(2) Require the proper care and use of all required personal protective equipment;
(3) Identify and eliminate job hazards quickly through job safety analysis procedures;
(4) Inform and train employees on the hazardous chemicals and/or procedures they MAY encounter under normal working conditions or during an emergency situation. (See the sample hazard communication program.)
(5) Receive and take initial action on employee suggestions, awards or disciplinary measures;
(6) Conduct crew/leader meetings the first five minutes of each work shift to discuss health and safety matters and work plans for the workday;
(7) Conduct walk-around safety inspections at the beginning of each job, and at least weekly thereafter;

(8) Train employees (new and experienced) in safe and efficient methods of accomplishing each job or task as necessary;
(9) Review injury trends and establish prevention measures;
(10) Attend safety meetings and actively participate in the proceedings;
(11) Participate in incident investigations and inspections;
(12) Promote employee participation in the safety and health program;
(13) Actively follow the progress of injured workers and display an interest in their rapid recovery and return to work.

Responsibilities of the Foreman

In addition to adhering to the safety measures for all employees, it is my responsibility to:

(1) Apply the program to my level.
(2) Inform the employees under my authority of the rules, regulations and preventive measures of the employer.
(3) Make employees aware of the safety methods at work.
(4) Ensure that the regulations of safety are respected, and if this is not the case, take the appropriate measures.
(5) Issue a warning to employees using dangerous work methods, or those creating dangerous work conditions.
(6) Apply corrective measures at my level.
(7) Inspect tools, mechanical equipment, individual protective equipment and buildings regularly, and follow-up with a daily individual report.
(8) Take measures to ensure that no employee performs their work alone, unless a reliable and efficient method of surveillance has been applied.
(9) Conduct as investigation when there is an accident causing injury or damage to any equipment, and inform the supervisor.

(10) Keep the supervisor updated on tasks accomplished and measures taken.
(11) Collaborate and participate in campaigns advocating for health and safety.
(12) When an employee is returning to work following an injury, request a medical certificate signed by a certified doctor, authorizing the employee to return to his job.
(13) Meet with an employee when they are returning to work following an injury or illness.

Safety Disciplinary Policy

Health and Safety Requirements are enforced to protect all workers from injury and illness. A safety disciplinary policy is in place to provide a mechanism for disciplining employees who repeatedly violate health and safety rules and guidelines. The Kitigan Zibi Anishinabeg believes that in order to maintain a safe and healthful workplace, employees must be cognizant and aware of all KZA, Provincial and Federal safety and health regulations as they apply to the specific job duties required.

Failure of employees to comply with rules and regulations regarding Workplace Safety will lead to disciplinary consequences as outlined in the *Kitigan Zibi Human Resources Policy.*

KZA Protocol for Temporary Closure of Buildings

Due to circumstances beyond the Kitigan Zibi Anishinabeg's control, certain buildings may temporarily considered to be unfit working environments. This may be caused by lack of electricity, a lack of heat (in the winter), flooding or other conditions that make the work environment unsafe.

In such instances, the Director will take immediate action to remedy the situation and notify the employees as to when and how the situation will be rectified. Employees are required to remain in the building until being notified otherwise.

If, after two hours, the situation is not resolved, **employees from the affected building** will be sent home temporarily. Employees that are sent home in the morning will be required to report back to work 1:00 p.m., to see whether the problem has been remedied. If the situation arises in the afternoon, the employees will be sent home for the rest of the day.

Note that ONLY employees who work in the affected building may be sent home; the dismissal is not applicable to the entire sector. Also, the dismissal affects only employees who have reported to work on that particular day. Employees who did not report to work that morning, due to scheduled leave or for other reasons, will have their sick/vacation leave credits deducted as if the day was considered a regular work day.

Construction

General Safety Rules for Construction Workers

Working Alone

A person is considered as "working alone" when they cannot be seen or heard by another person; and/or cannot expect a visit from another person.

Working alone is not necessarily problematic, although certain safety and prevention measures must be observed to ensure the security of the lone worker.

Employees will refrain from working alone under high-risk circumstances, which include working:

(i) At heights;
(ii) In confined spaces;
(iii) With electricity;
(iv) With hazardous substances or materials;
(v) With hazardous equipment such as chainsaws or firearms;
(vi) With materials at great pressure; or,
(vii) With the public when there is a potential for violence.

All Construction Workers

As a construction worker, I will:

(1) Always store materials in a safe manner and tie down or support piles if necessary to prevent falling, rolling, or shifting.

(2) Not allow shavings, dust scraps, oil or grease to accumulate in my area, recognizing that good housekeeping is a part of the job.

(3) Remove trash piles as soon as possible, as this could be a safety or fire hazard.

(4) Remove or bend over the nails in lumber that has been used or removed from a structure.

(5) Immediately remove all loose materials from stairs, walkways, ramps, platforms, etc.

(6) Not block aisles, traffic lanes, fire exits, gangways, or stairs.

(7) Avoid shortcuts – use ramps, stairs, walkways, ladders, etc. *Note: standard guardrails must be erected around all floor openings and excavations must be barricaded. Contact your supervisor for the correct specifications.*

(8) Not remove, deface or destroy any warning, danger sign, or barricade, or interfere with any form of protective device or practice provided for my use or that is being used by other workers.

(9) Get help with heavy or bulky materials to avoid injury to myself or damage to material.

(10) Keep all tools away from the edges of scaffolding, platforms, shaft openings, etc.

(11) Never use tools with split, broken, or loose handles, or burred or mushroomed heads.

(12) Keep cutting tools sharp and carry all tools in a container.

(13) Know the correct use of hand and power tools, and use the right tool for the job.

(14) Know the location and use of fire extinguishing equipment and the procedure for sounding a fire alarm.

(15) Use flammable liquids only in small amounts at the job location and in approved safety cans.

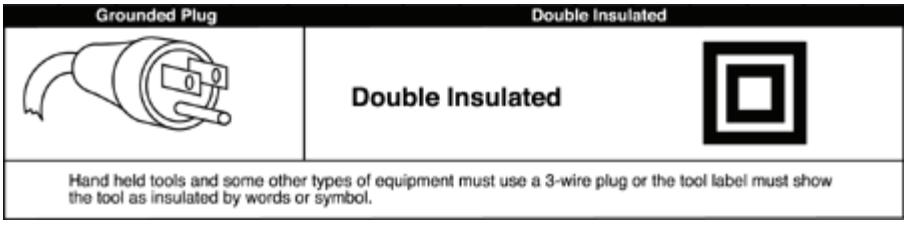
(16) Install all proper guards or shields all power tools before use. I will not use any tools without the guards in their proper working condition, and will never use "homemade" handles or extensions (cheaters)!

(17) Not operate any power tool or equipment unless I am trained in its operation and authorized by my firm to do so.

(18) Use tools only designed for their purpose.

(19) Ensure that all electrical power tools, extension cords, and equipment must be properly grounded or double insulated.

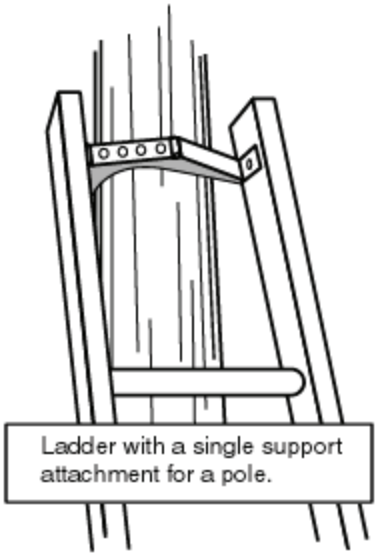
(20) Ensure that electrical power tools and extension cords must be properly insulated, and that damaged cords must be replaced immediately.

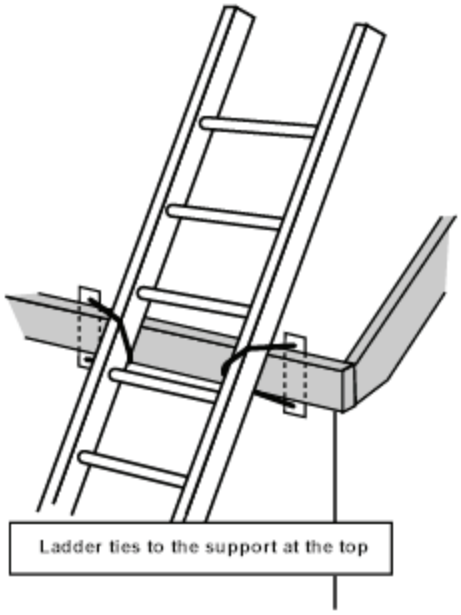


Construction Equipment Safety Rules

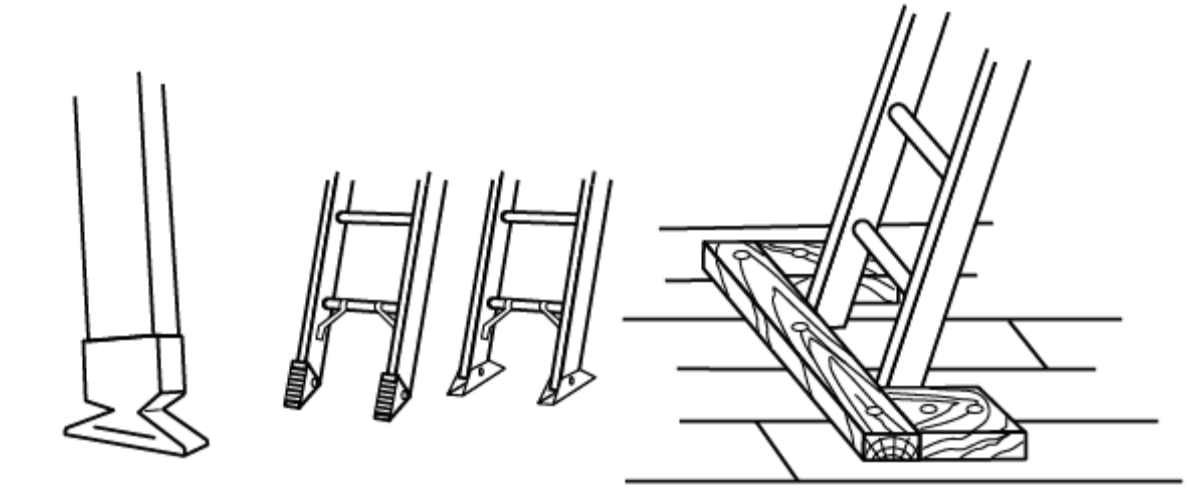
Ladder Safety Rules

(1) Inspect before use for physical defects.
(2) Ladders are not to be painted except for numbering purposes.
(3) Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
(4) When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
(5) Always face the ladder when ascending and descending.
(6) If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.
(7) Only one person is allowed on a ladder at a time.
(8) Do not jump from a ladder when descending.
(9) All joints between steps, rungs, and side rails must be tight.
(10) Safety feet must be in good working order and in place.
(11) Rungs must be free of grease and/or oil.


Ladder with a single support attachment for a pole.


Ladder ties to the support at the top

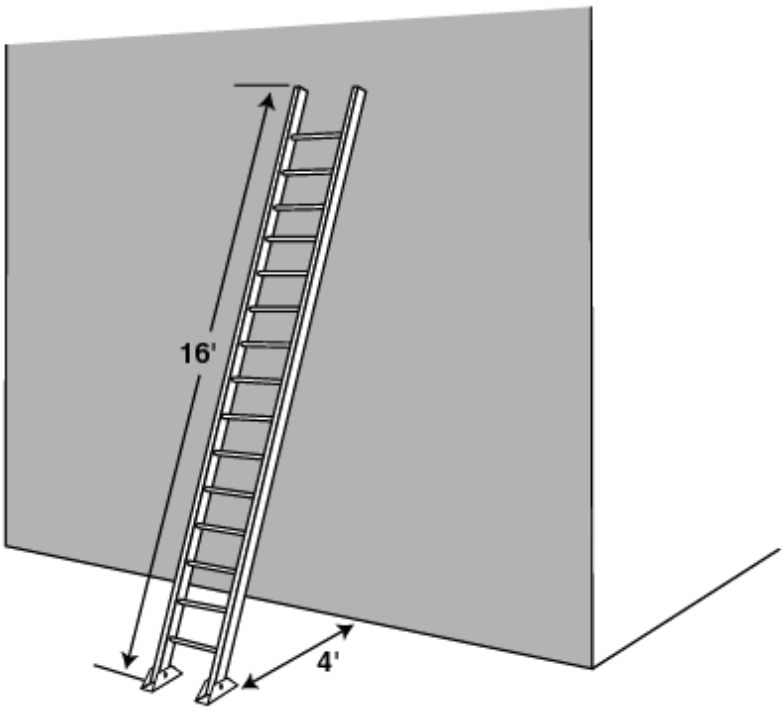
All ladders must be equipped with safety (non-skid) feet.



Rubber Safety Feet Spikes Cleats Nailed to the Floor

Ladders with supports on the bottom.

Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.



Stepladder Safety Rules

(1) Do not place tools or materials on the steps or platform of a stepladder

(2) Do not use the top two steps of a stepladder as a step or stand.

(3) Always level all four feet and lock spreaders in place.

(4) Do not use a stepladder as a straight ladder.

(5) Straight type or extension ladders

(6) All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.

(7) After raising the extension portion of a two or more stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.

(8) All extension or straight ladders must be secured or tied off at the top.

Fall Protection Safety Rules

One of the major causes of injuries and deaths that take place within the construction industry are falls from elevation. Therefore:

(1) Worksites with fall hazards of 10 feet or more will have a site-specific fall protection work plan completed before any employees begin work.

(2) The employees on that specific job will be trained in the fall hazards and the method used to implement fall protection.

(3) Due to the hazard that falls present, disciplinary action will be taken against employees who fail to comply with the safety measures as set out in this section.

(4) The evaluation of the jobsite and the completion of the fall protection work plan will be done by a designated "competent person," in collaboration with the Safety Officer who has an understanding of WISHA fall protection requirements, the fall protection systems available for use, and has the authority to take corrective action to eliminate employee exposure to fall hazards.

(5) Fall protection will be provided either through the use of a *fall arrest* system or a *fall restraint* system and thoroughly described in the fall protection work plan available on site for review.

   (i) Fall restraint equipment is designed to protect against falls.

   (ii) Fall arrest equipment is designed to provide protection once a fall has occurred.


Fall Protection
Fall Restraint
Protection Against Fall
Fall Arrest
Protection After Fall
Guardrails
Safety Belt or Harness
Warning Line System
OR
Warning Line System & Safety Monitor
Full Body Harness
Safety nets
Catch Platforms

Scaffold Safety Rules

(1) Before starting work on a scaffold, inspect it for the following:
   (iii) Are guardrails, toeboards, and planking in place and secure?
   (iv) Are locking pins at each joint in place?
   (v) Are all wheels on moveable scaffolds locked?

(2) Do not attempt to gain access to a scaffold by climbing on it (unless it is specifically designed for climbing); always use a ladder.

(3) Scaffolds and their components must be capable of supporting four times the maximum intended load.

(4) Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened in any way must be immediately repaired or replaced.

(5) Scaffold planks must extend over their end supports not less than 6 inches nor more than 12 inches, unless otherwise specifically required.

(6) Scaffold platforms must be at least 18 inches wide unless otherwise specifically required or exempted.

(7) All scaffolds must be erected level and plumb, and on a solid footing.

(8) Do not change or remove scaffold sections unless authorized to do so.

(9) Do not allow workers to ride on a rolling scaffold when it is being moved.

(10) Remove or secure all materials and tools on deck before moving.

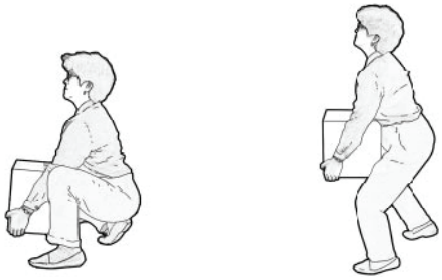
(11) Do not alter any scaffold member by welding, burning, cutting, drilling, or bending.

Manual Material Handling

Workers assigned to the handling of loads or persons shall be instructed in the proper manner of performing their work safely.

O.C. 885-2001, s. 166.

(12) I will use proper ergonomic techniques for picking up heavy loads such as boxes or other objects.



This lift is the most common method of good lifting technique. Use the basic lift for objects small enough to straddle where you have enough room to use a wide stance.

Safe Lifting Technique

1. Get close to the object.
2. Stand with a wide stance: put one foot forward and to the side of the object.
3. Keep your back straight, push your buttocks out, and use your legs and hips to lower yourself down to the object.
4. Move the load as close to you as possible.
5. If the box has handles, grasp the handles firmly and go to step 9.
6. Put the hand (that is on the same side of your body as the forward foot) on the side of the object furthest from you.
7. Put the other hand on the side of the object closest to you. Your hands should be on opposite corners of the object.
8. Grasp the object firmly with both hands.
9. Prepare for the lift: look forward.
10. Lift upwards following your head and shoulders. Hold the load close to your body. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift.

SOURCE: U.S. Army Center for Health Promotion and Preventative Medicine, Ergonomics Program. ("Copying and distribution of this pamphlet is authorized and encouraged").

Personal Protective Equipment

(1) Helmet
  (i) This helmet shall be Category B and compliant with the ANSI Z89.1-1986 or CAN/CSA Z94.1-92 standard.
  (ii) The fixed-crown suspension shall be correctly adjusted and ideally replaced every 2 years.

(2) Ear Cups
  (i) Compliant with the CAN/CSA Z94.2-94 standard.
  (ii) Various models available on the market.
  (iii) Must be compatible with the type of helmet.

(3) Ear plugs
  (i) Compliant with the CAN/CSA Z94.2-94 standard.
  (ii) Disposable models shall be replaced every day. However, reusable plugs must be washed with hot water and soft soap every day.

(4) Glasses
  (i) Clear and screened glasses are available at many distributors and are compliant.
  (ii) NOTE: Prescription glasses must be classified as safety glasses by an optometrist.

(5) Gloves or mittens
  (i) Gloves or mittens with leather-covered palm and fingers.

(6) Safety Boots/Shoes
  (i) Safety shoes compliant with the CAN/CSA-Z195-M92 standard (safety toecap and forest-type non-skid sole).
  (ii) NOTE: When choosing boots, don't let the price be the only criteria, but also comfort, weight and anti-skid sole of the product.

(iii) Once the selection process is over, a fitting session wearing two pairs of wool socks or one pair with Bama boot socks is strongly recommended.

First Aid

First Aid Kits

(b) The Kitigan Zibi Anishinabeg will ensure that:

(1) Each building and/or construction site within the Kitigan Zibi Anishinabeg will be equipped with an adequate number of first aid kits.

(2) The kits must be readily accessible, transportable and available at all times.

(3) It does not take more than five minutes to access a kit. If this is the case, the KZA will remedy the situation by adding additional kits to their buildings or construction sites.

(4) First Aid kits are kept clean, fully equipped, and in good condition.

(5) The expiry dates of the contents are checked regularly and replaced as required.

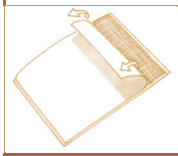
(6) Partially used sterile material will be discarded.

(c) First Aid Kit Contents

(1) In addition to the standard items (see chart on next page), it is strongly recommended that these items be added to the first aid kit:

- (i) Pocket mask;
- (ii) Disposable gloves;
- (iii) Antiseptic soap

(2) The kit must <u>not</u> contain any medication. First aiders in the workplace are not authorized to give medication in any form whatsoever, unless they have received additional training to administer oxygen or adrenaline.

Standard Items	Description	Notes
First Aid Manual	First Aid Manual and Guide	Must be a CSST approved manual
1 pair of Bandage Scissors 	Metal scissors with a rounded tip used to cut gauze strips or adhesive tape.	Disinfect with alcohol (or with another disinfectant solution) before and after use. Thoroughly wash and dry before storing. Make sure the scissors are sturdy and of good quality.
 **Splinter Forceps**	Pointed forceps used to remove small foreign bodies such as splinters.	Disinfect with alcohol (or with another disinfectant solution) before and after use. Thoroughly wash and dry before storing. Make sure that the forceps are sturdy and of good quality.
12 Safety Pins of Assorted Sizes	Useful for fastening triangular bandages, gauze bandages, etc.	
25 sterile bandages, individually wrapped	Useful for protecting a wound	Avoid touching the surface of the gauze so as to prevent contamination. Avoid fastening the bandage too tightly when applying it to an extremity. Discard any bandage that is not in an airtight wrapper or that has been damaged by water or moisture.
 **Sterile Gauze Squares (25) (4 in. x 4 in.) (Individually wrapped)**	Useful for covering larger wounds or applying pressure to an area that is bleeding.	Open the envelope where indicated and remove the gauze by holding onto one corner so as not to contaminate the square. Always avoid touching the gauze surface that covers the wound.
Rolls of Sterile Gauze Bandage (4) 50 mm x 9 m (2 in. x 30 ft.) (Individually wrapped) **Rolls of Sterile Gauze Bandage (4) 101.6 mm X 9 m (4 in. x 30 ft.) (Individually wrapped)**	 Strips of sterile gauze or cotton bandage used to hold sterile gauze squares in place.	Always apply from the bottom of the injury to the top.
 **Triangular Bandages (6)**	Used to immobilize a limb or stabilize a limb	
Sterile Bandage Compresses (Pressure Dressings) (4) 101.6 mm x 101.6 mm (4 in. x 4 in.) (Individually wrapped)	Bandages consisting of several layers of sterile gauze, filled with cotton batting and fastened using strips of gauze. Used to apply fast, effective pressure in case of profuse bleeding.	When opening, be careful not to touch the gauze; apply directly over the wound. Wrap the gauze strip firmly around the injured limb so as to reduce or stop bleeding. Make sure that the bandages and compresses applied directly over the wound are sterile.
Roll of Adhesive Tape (1)	Adhesive tape used to fasten bandages or protective dressings.	Avoid using in case of allergies (an anti-allergic tape is available on the market). Never apply directly on the face.
Alcohol Swabs (25)	Small swabs filled with an antiseptic solution and packaged in sealed envelopes.	

3.2 First Aiders

Depending on the type of work activity being carried out, a minimum number of people qualified to provide first aid must be present.

NUMBER OF FIRST AIDERS:	NUMBER OF WORKERS ASSIGNED TO A GIVEN SHIFT	MINIMUM NUMBER OF FIRST AIDERS REQUIRED FOR THIS SHIFT
At an Establishment	50 or less 51-150 151 or more	1 first aider 2 first aiders Starting with this number, add 1 first aider for every additional 100 workers or fraction thereof assigned to the shift.
At a Construction Site:	10-50 51-100 151 or more	1 first aider 2 first aiders Starting with this number, add 1 first aider for every additional 100 workers or fraction thereof assigned to the shift. ***NOTE:*** ***At a construction site, all first aiders must identify themselves by wearing a hard hat bearing a cross.***
At a Forestry Enterprise	5 or less 6-10 11 or more	1 first aider 2 first aiders Starting with this number, add 1 first aider for every group or portion of a group of 5 workers.

Procedure for Treating Severe Allergic Reactions

Anaphylaxis is a severe, life-threatening type of allergic reaction that occurs when a person's body reacts to an allergen (sometimes called a "trigger"). Food is the most common trigger, but insect stings, medicine, latex or even exercise can also cause a reaction. Within minutes, an allergic reaction may turn into a life-threatening situation for a severely allergic person.

The two most common symptoms of anaphylaxis include:

- Hives
- Swelling, especially around the throat, lips and tongue

Other symptoms include:

- Difficulty breathing or swallowing
- Metallic taste or itching in the mouth
- General redness or itching of the skin
- Stomach cramps, nausea, vomiting or diarrhea
- Increased heart rate
- Sudden drop in blood pressure
- Paleness
- Sudden feeling of weakness
- Anxiety or an overwhelming sense of doom.

In a severe allergic emergency, quick symptom recognition and IMMEDIATE TREATMENT are vital. Any delay can be FATAL.

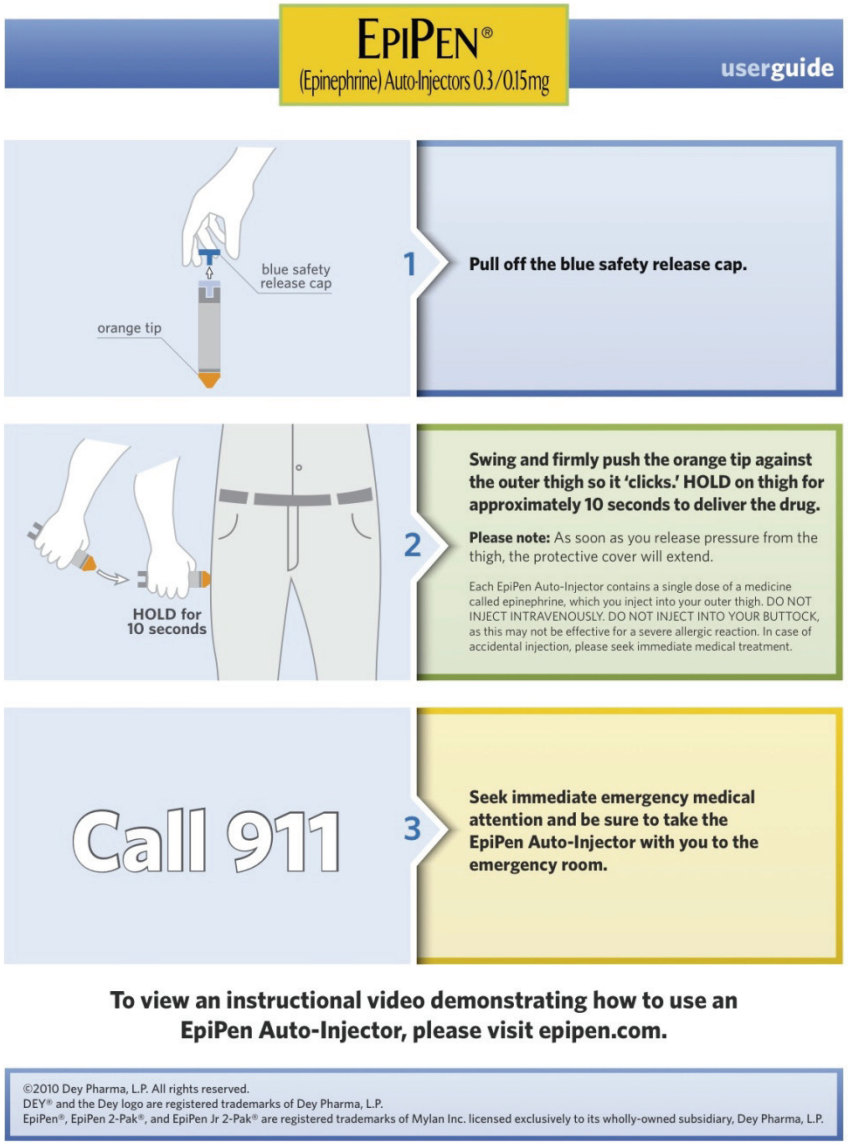
EpiPen Injector

Epinephrine (i.e., adrenaline) can be used to treat anaphylaxis. The EpiPen is an auto-injection device that administers a pre-measured dose of epinephrine.

The EpiPen works by relaxing the muscles in a person's airways to make breathing easier, helps to revers the rapid and dangerous

decrease in blood pressure, and relaxes the muscles in the stomach, intestines and bladder.

The EpiPen is designed to be used immediately in an emergency, to treat an allergic reaction fast and give you time to get to a hospital or medical center. It is not a substitute for emergency medical treatment. Use the EpiPen as soon as the first signs and symptoms of anaphylaxis appear.



WARNING: The EpiPen must only be injected into the thigh. Accidentally injecting adrenaline into the hands or feet may cause the loss of blood circulation in those body parts. In case of accidental injection, report to the nearest emergency clinic to receive immediate medical attention.

After Using the EpiPen

(1) Call 911. Seek immediate emergency attention.
(2) The majority of the solution (1.7 ml) will remain in the injector after activation. This is normal.
(3) If no signs of improvement are noticed after 5 minutes, proceed with a second injection of adrenalin if needed, using the same procedure.
(4) Perform cardiopulmonary resuscitation if needed, until help arrives
(5) If practical, take the person to the nearest emergency clinic. Bring the used EpiPen and informing the physician that the person has received the intramuscular shot of adrenalin.

Important Safety Information

(1) The EpiPen should be ready at all times;
(2) Read the directions carefully before an emergency occurs.
(3) Do not remove the safety cap until the device must be used. The injected quantity is only 0.3 ml.
(4) Protect from light and extreme heat.
(5) Always keep the unit in its tube;
(6) Replace before expiration;
(7) Replace injectors with brownish solution containing solids.
(8) Replace unit if solution isn't transparent.
(9) Keep in a dark, cool environment (15° - 30° C / 59° - 86° F)
(10) DO NOT REFRIGERATE.

Insect Stings

Non Allergic Person

(1) When an insect such as a bee or a wasp stings a person, his/her body releases a chemical called *histamine* into the skin. In a non-allergic person, the histamine will simply cause redness, itching and a ring or bump at the site of the sting. In such cases, it would be helpful to:

(i) Remove the stinger as soon as possible, if it has been left in the skin:

1. The best way is to scrape the skin with a thin dull edge (e.g., credit card, table knife, fingernail) to remove the stinger, and avoid turning it or pushing it in.
2. Avoid using tweezers if possible, as this may release some of the poison into the wound. However, use the tweezers if it is the quickest way to remove it, as speedy removal is what matters most in reducing the risk of infection.

(ii) Wash the affected area with soap and water.

(iii) Apply a cold compress (e.g., an instant cooling bag) to decrease swelling.

(iv) If available, apply a sodium bicarbonate compress (paste of baking soda and water).

(v) Ensure the person stays warm and avoids exertion.

(vi) Monitor the person's condition; if he/she develops red spots or major swelling, but can still breathe normally, see a physician.

Major Reactions

(1) When someone is severely allergic to insect stings, histamine may also be released into the airways, lungs and other vital organs.

This is a VERY DANGEROUS situation, as it causes tissues to swell and can close the airways, causing breathing to stop.

(2) If you see any part of the person's face swelling and s/he has trouble breathing or is exhibiting other symptoms of anaphylaxis, USE THE EPIPEN IMMEDIATELY as per the procedures outlined earlier.

(3) Call 911 and seek immediate medical attention.

3.3 Heat Exhaustion

Construction workers can experience heat related health problems during the summer season, especially during heat waves. Two of these are heat exhaustion and heat stroke.

Heat *exhaustion* is rarely life threatening (unless it is ignored), but heat *stroke* is a **real medical emergency** that if not immediately and properly treated, could be fatal.

On a hot day, all employees should pay attention to themselves and to their co-workers for signs of heat exhaustion and heat stroke. Immediately contact a first-aider or a supervisor if a worker is showing any of the symptoms listed below.

Symptoms of Heat Exhaustion

The symptoms of heat *exhaustion* and heat *stroke* are quite different.

(1) A person suffering from heat exhaustion will usually be ***sweating profusely*** to try to rid his/her body of excessive heat. In addition, the person may also exhibit some of the following symptoms:

- Moderately high core body temperature
- Muscular cramps – shivering – nausea
- Stomach ache – dizziness, vertigo – headache
- Unusual fatigue or general discomfort
- Possible fainting, but can be revived.

(2) If this is the case,

- Take the affected worker to a shady and/or cool place.
- Loosen work clothing;
- Have him/her drink plenty of water.
- Someone should remain with the person until s/he has recovered.

(3) If the symptoms of heat exhaustion last for more than an hour, or if the symptoms worsen, seek immediate medical attention.

Heat Stroke

How Heat Stroke Occurs

A body's core temperature should be about 37 ºC in order to function properly. As the body heat increases during hot weather or during physical activity, so does the need to lose that heat. Drinking plenty of liquids on a hot day helps the body to cool down by producing sweat. A person can lose large amounts of body fluid through sweat without noticing any effects.

However, at a certain point, the body will stop sweating in order to divert the remaining fluid to vital functions. At this point, the person starts to suffer from heat stroke. The body cannot cool itself down: its core temperature can rapidly shoot up to more than 40ºC. The high core temperature starts to damage the internal organs and can also produce dangerously low blood pressure.

Heat stroke is a real, life-threatening emergency that must be treated immediately.

Recognizing Signs and Symptoms of Heat Stroke

(1) Someone with a heat stroke has usually ***stopped sweating***.

(2) He/she may exhibit symptoms such as:

- Extremely high core body temperature
- Hot, red/purple-ish dry skin
- Hyperventilation – rapid, shallow breathing
- Rapid pulse
- Confusion – incoherent remarks;
- Aggression, strange behavior (as if under the influence of drugs);
- Loss of consciousness

(b) First-Aid Intervention:

(1) The affected worker needs to see a doctor as soon as possible. But in the meantime, the priority is to get the person's core temperature under control.

(2) Get the attention of a first-aider, have someone call 911 and start the procedure for evacuating and transporting injured persons;

(3) Carry the worker to a shady and/or cool place;

(4) Remove his/her working clothes;

(5) Splash the body with cool water;

(6) Fan the person to increase air flow to promote sweating;

(7) Place ice packs around the person, especially at the neck, armpits and groin;

(8) Have the worker drink small amounts of cool water if s/he is conscious and lucid.

(9) Stay with the person until emergency help arrives.

(c) Heat Stroke Prevention

(1) The most important way to prevent heat stroke is to ***stay hydrated***. Drink plenty of fluids such as water or sports drinks, but avoid caffeine (coffee, tea, soft drinks) and alcohol, which may lead to dehydration.

(2) If you have to perform vigorous, physical activity in hot or humid weather, be sure to:

- Keep well hydrated, and replenish your electrolytes (sports drinks are a good source);
- Pace yourself, and take plenty of breaks;
- Wear clothing that allows sweat to evaporate;
- Educate yourself on the dangers and the prevention measures to take when working in a hot environment;

- Know the signs and symptoms of heat exhaustion and heat stroke.

Risk Increasing Factors

(1) The risk of heat stroke increases in hot and humid weather, and when workers are totally exposed to the sun for long periods of time in absence of clouds or wind.

(2) In addition, clothing that prevents sweat from evaporating (e.g., heavy clothing, rain coat, cotton overalls) can also increase the risk.

(3) People with the following health issues are especially prone to heat stroke:

- Alcoholism
- Chronic illnesses like heart disease, diabetes;
- Obesity, not being physically active;
- Some skin conditions;
- Recent health problems (diarrhea, fever, vomiting);
- Certain medications and drugs;
- Lack of sleep;
- Workers who are not used to working in a hot environment.

Employees with any of the above conditions should be especially careful when working in hot and humid weather.