ANGLO AMERICAN

# ANGLO AMERICAN EXPLORATION (CANADA) LTD.

&

## HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

HBED

# HEALTH, SAFETY & ENVIRONMENTAL ORIENTATION MANUAL






**FEBRUARY 20, 2003**

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**Date Revised: February 20, 2003**
**Author / Revised by: Doug G. Hancock**

# HBM&S

# LOSS CONTROL POLICY

Hudson Bay Mining and Smelting Co., Limited
is committed to preventing losses,
providing a safe, healthy and productive work environment,
and to placing "safety as a value above all others".

In fulfilling this commitment, we have implemented a Loss Control Program that will:

- constantly reduce injuries, incidents and property damage through employee participation and empowerment,
- identify responsibilities and accountabilities for every employee to apply safe work practices, and
- comply with regulatory requirements.

All employees are requested to actively participate in making all working places incident and injury free to achieve safe production.

H. Russell Rood
*President, HBM&S Mining Division*

Peter R. Jones
*President, HBM&S Metals Division*

December 17, 2001

Date Revised: February 20, 2003

Date Revised: February 20, 2003
Author / Revised by: Doug G. Hancock

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***ANGLO AMERICAN EXPLORATION (CANADA) LIMITED***

## HEALTH, SAFETY & ENVIRONMENTAL ORIENTATION MANUAL

**Anglo American Exploration (Canada) Ltd. & Hudson Bay Exploration and Development (HBED) has formed a Health and Safety committee consisting of representatives from different work areas:**

**2003 Committee representatives in: *Central District (Flin Flon, MB)* are: D. Hancock, A. Callegari, T. Lewis, D. McKeachnie, A. Vowles, K. Gilmore - alternates B. Janser & J. Dunning.**

***Anglo American Exploration (Canada) Ltd. / North America & Europe Hub Office (Vancouver, BC)* are: E. Yarrow, D. Cass, M. Zang, E. Brown, S. Cook - alternates M. Cruise & D. Peck.**

**Doug Hancock is assigned to the task of Anglo American Safety, Health & Environment (S.H.E.) Coordinator – North America / Europe.**

### *Objectives of the Anglo American Exploration (Canada) Safety,Health & Environmental (SHE) manual are:*

- *To provide the tools and training to Anglo & HBED employees, in order to perform work in a safe manner, with a goal of zero illness or injury. To ensure contractors adhere to the same guidelines.*
- *To practice good environmental stewardship, adhere or exceed government regulations and Anglo / HBED policy, in order to minimize damage to the environment as a result of our activities. A goal of zero environmental spills.*

- *All Project / Camp Managers and Supervisors (including project geologists and geophysicists) must understand, and present, this manual to ALL personnel to visit the site, thereby providing the proper training and equipment to perform ones duties safely. An acknowledgement on Page 47 that's to be signed by ALL personnel, states that the Anglo / HBED SHE Orientation Manual has been read.*

# 1. Environmental Responsibilities

- Contractors will report all environmental incidences, i.e. spills, lakeshore disruptions, unauthorized water crossings, etc. Contractors are responsible for the clean up of any incidents, which they created. All work will be placed on hold until the area is cleaned. The Anglo / HBED representative will be advised and may supervise the clean up. A spill kit will be made available, if required.
- All drill access roads should be kept to the minimum. Any roads crossing waterways or coming onto a lake should be routed so they cross with the least amount of impact to the waterway or shoreline and also such that its visibility is limited from the lake.
- See attached min. requirements for "Environmental Impact Sheet for Diamond Drilling".
- Be prepared to react, control, report and follow-up on injuries, and environmental spills. All spills to be reported to an Anglo / HBED representative.
- Spill kits are required at drills, pumps, and fuel storage areas.

## 1.1) Guidelines for Drill Site Cleanup

- Ensure all garbage: cans, burlap, steel, insulation, paper & containers are removed from site.
- Ensure all hydrocarbons: grease, oil, diesel & hydraulic fluids are absorbed, & absorbent mats removed.
- Ensure all wood is either removed or neatly stacked.
- Ensure tree "hangers" are cut flush to the ground.

SPECIAL CONDITIONS-ICE DRILLING OR WITHIN 30 METRES OF WATER COURSES:

- Ensure ALL materials are removed from the site.
- Remove casing stems on lakes.
- Minimize discharge of cuttings to watercourses. Capture coarse cuttings.
- Prevent spillage, through tarps or absorbent mats for cement and hydrocarbons.
- Drain the drill water discharge into depression or sumps where practical.

## 1.2) Spills & Spill Procedure

Minor spills usually occur in and around equipment i.e. oil changes. This type of spill is not generally a threat to life or the environment, but must be reported to the Anglo / HBED representative. The responsible party is asked to contain, dyke, control and clean up. Try to contain and minimize discharge into watercourses. The material collected is to be placed in a sealed container, labeled, and placed in a designated storage area.

Major Spills usually happens outdoors, is and could potentially be a threat to life and / or the environment. **Spills of 100 liters or more to be reported IMMEDIATELY** to Chief Exploration or Administration Geologist. Once witnessed, follow the Hazardous Spill Procedure outlined below:

### *1.3) Hazardous Spill Procedure*

- Move a safe distance away, turn off all sources of spark or ignition, including cigarettes, and extinguish any open flame, if necessary or possible.
  DO NOT SUBJECT YOURSELF TO UNNECESSARY DANGER.
- Identify the type of spill (Material, Quantity, and Location).
- Consult MDS data sheet in camp.
- If it can be done SAFELY, try to stop the flow or contain spill with materials on hand.
- ***Barricade the area against travel or post a guard, if possible***
- IMMEDIATELY notify supervision of the spill, giving details of the type of material, quantity, location and current situation.
- The supervisor is to inform Anglo / HBED environmental coordinator at once if the spill is significant and/or if emergency spill clean up equipment is required. If the spill is significant, the company representative in communication with the Anglo environmental coordinator, will prepare a plan of action for clean up and supervise the work to be done.
- The project geologist maintains a log of all spills which occur, detailing the date, time, location, type of, quantify of, cleanup done or required to be done and the method of disposal of spilled material.
- Waste oils and lubricants are to be placed in properly labeled, sealed containers, to be placed at a designated storage area. No oil or gas filters are to be placed in the garbage dump. Filters are to be put in labeled drums (waste filters) and stored at the designated storage area.

# Environment Policy

Hudson Bay Mining & Smelting Co., Limited (HBMS) is committed to conducting business in an environmentally responsible manner.

To fulfil this commitment, we:

- Operate our business to meet or surpass all relevant regulated environmental requirements and subscribed codes of practice;
- Set objectives, targets and action plans and use processes, practices, materials and products chosen to avoid or control adverse effects on the environment;
- Identify responsibilities and accountabilities for employees for safe and environmentally sound work practices; and
- Monitor effectiveness and review environmental programs, objectives and targets with the goal of ensuring continual improvement.

**Wayne Fraser**
Director of Environment and Communications

**Peter Jones**
Chief Executive Officer

## 2. CAMP SITES

### 2.1) Camp Location and Set-up

**Pick good camp sites**...avoid sites well - traveled by animals, sites with a history of bear problems (check with your local Conservation Officer) and sites where roaring streams drown out sounds. Clean all underbrush and branches from the campsite area to a height of 3 meters for better visibility. Keep sleeping tents together, separate from the kitchen, food storage and garbage incineration areas. Burnable garbage should be incinerated (check with local regulations, and fire conditions) downwind from camp in an open area or removed to a disposal site. Sleeping quarters should be upwind of cooking and burning areas.

A "Camp Layout Plan Map" should be posted in a central area (Kitchen tent), marking locations of fire fighting equipment, first aid equipment, firearm and ammunition storage sites. Specific tents like the office, the shower/dry & the kitchen tent should also be identified on the plan map.

**Note**: A Camp Location map should be prepared and situated in the base office. Such a map should be as specific as possible with the camps accurate location as far as distances, landmarks, UTM Co-ordinates etc. in the event of an emergency (air / ground rescue, camp visits etc.).

### 2.2) Camp Rules

Any person found involved in any of the following will be subject to having their camp privileges revoked, and or dismissal.

- Tampering with any fire fighting equipment.
- Possession of "non approved" company firearms or other offensive weapons.
- Recreational hunting on Anglo / HBED property by employees and or our contractors.
- Use or possession of illegal drugs.
- Project Manager has discretion as to the use or possession of alcohol on site (dry/wet camp).
- Fighting or provoking a fight.
- Willful damage or destruction of company property (Repair costs recovered from employee).
- Theft. (Thefts must be reported immediately).
- Unauthorized use of communication equipment.
- Smoking in bed.

Camp & work site inspections to be done by an Anglo / HBED staff member every two weeks to ensure compliance as to Anglo / HBED requirements.

### *2.3) Firearm Safety*

Possession of "non approved" company firearms or other offensive weapons is prohibited in all Anglo American Exploration and Hudson Bay Exploration & Development Co. Ltd. camps.

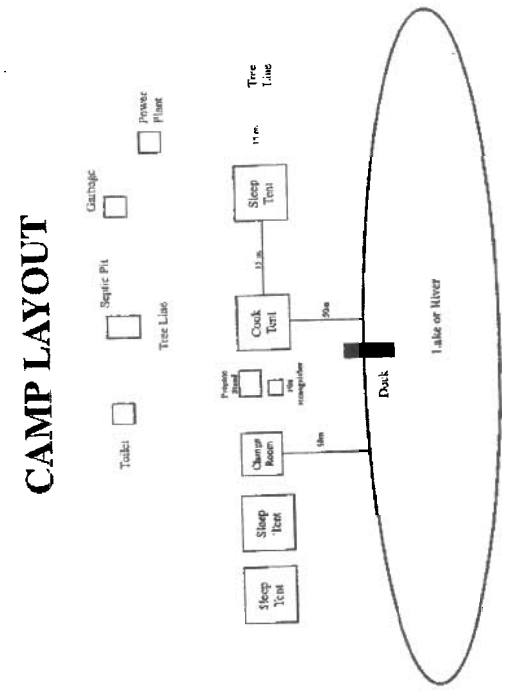
Only under very special circumstances may an exception be made for the allowance of a personal firearm on company property-when it is believed that wildlife is a significant threat to life. Approval in writing will be required from ones Regional Manager.

To promote firearm safety Anglo American & HBED enforce these "rules & procedures":

- ALL Provincial and Federal government regulations (*Firearms Act and Regulations*) concerning the use, possession, safe storage and handling of a firearm MUST be abided by.

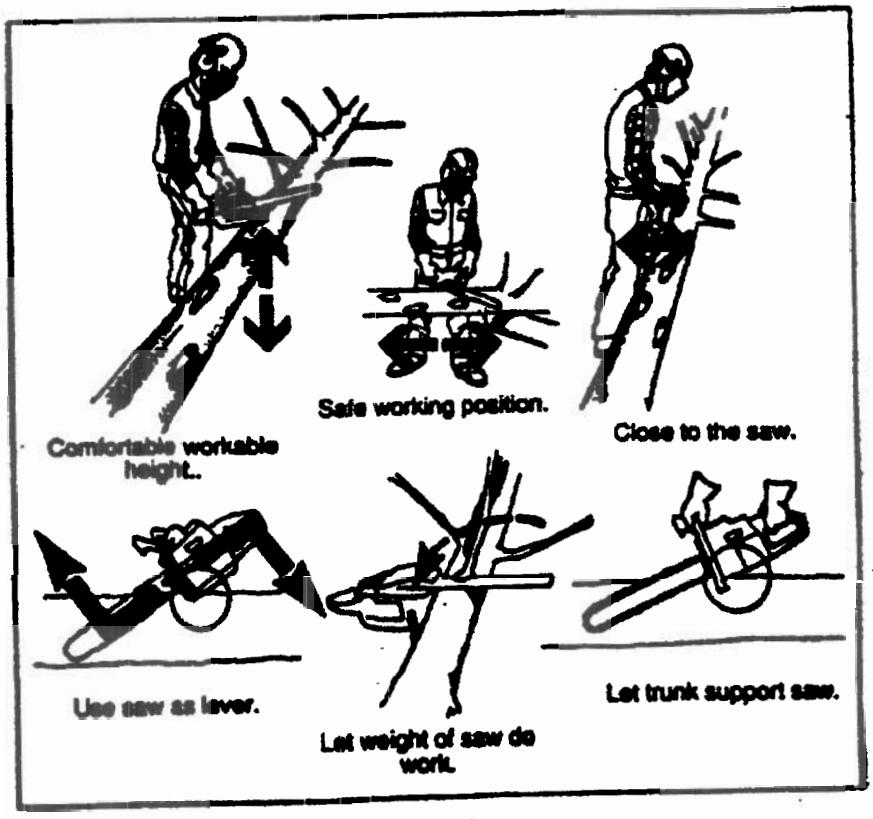
- HBED employees may not carry or use personal firearms in the field unless otherwise approved in writing by the Project and Regional Manager.
- An FAC (Firearms Acquisition Certificate) is required for handling or transporting any Anglo / HBED issued firearm.
- Treat every firearm as a loaded firearm.
- Loaded firearms may not be transported in **any vehicle**.
- Firearms must have a trigger lock / cable lock (for lever actions) installed when not in use.
- Ammunition is to be stored separately from the firearms, in a locked storage facility.
- **No recreational hunting** allowed on Anglo/HBED property by employees / our contractors.
- Post "No Hunting" signs on all access routes to camp, during hunting season.
- As an extra safety measure,wear hunter safety florescent orange vests during hunting season.

# CAMP LAYOUT


Garbage
Septic Pit
Toilet
Tree Line
Sleep Tent
Cook Tent
Dock
Lake or River

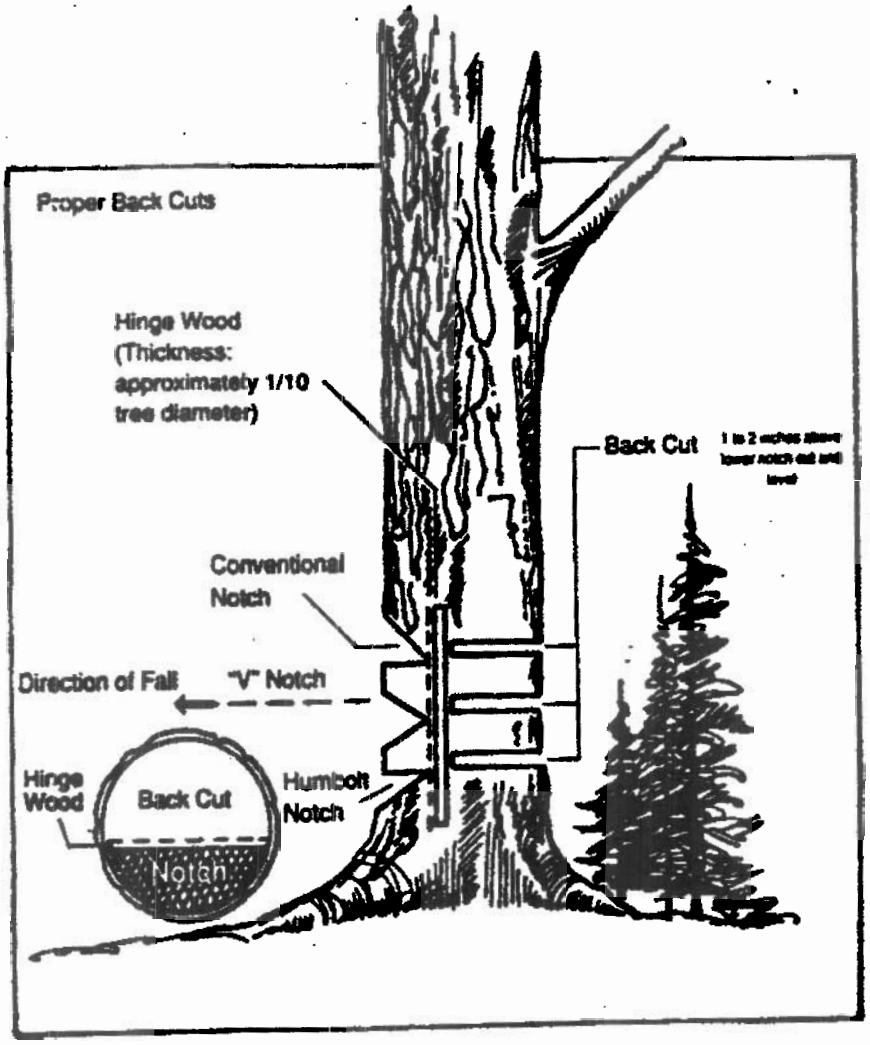
# GUIDELINES FOR CHAINSAW SAFETY

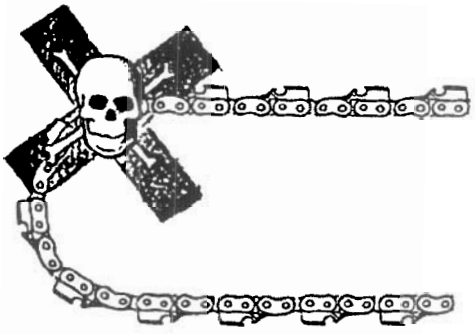
- ensure that all parts are tight and the chain has the proper tension
- adjust the idle so that when your finger leaves the trigger, the blade stops
- do not use a chainsaw for cutting brush or stripping bark
- do not walk with the saw running
- always carry a chainsaw with the blade pointed to the rear
- start the saw on the ground or on a stump, not on your knee
- do not smoke while refuelling and do not refuel a hot machine
- always keep a first aid kit nearby




**ENSURE THAT ALL PPE EQUIPMENT IS WORN** when operating chainsaws - specifically, work gloves, hearing protection, chainsaw chaps, a hardhat with eye protection and a face shield / screening.

# PROPER CHAINSAW CUTS & NOTCHES



Kick-back Danger Zone

## 3. Individual Safety Responsibilities

Each worker employed upon or in connection with every establishment shall, in the course of his employment.

- Take all reasonable precautions to ensure their own safety and the safety of other persons in the establishment.
- As the circumstances require, use devices and articles of clothing or equipment that are intended for their protection and furnished to them by their employer, or required pursuant to the regulations to be used or worn by them.
- If working at drill sites, use the safety equipment required at these sites: ear protection, hard hats, safety glasses, and hard-toed boots.
- During geological reconnaissance and sampling programs ALWAYS wear eye protection whilst banging / hammering on rocks.
- Aside provision of your OWN COMPLETE underground safety kits / equipment (eye, & ear protection, coveralls, belt, gloves and hard hat) for mine tours a good idea is to NOT rely on the mines to supply these kits where equipment is usually inadequate / incomplete.

### 3.1) Hypothermia - "The Chill that Kills"

Hypothermia is one of the leading causes of death to people in the outdoors and is defined as a condition of lowered internal body - core temperature caused by overexposure to a cold environment, can develop quickly if you do not take sensible precautions.

The major difference between the onset of hypothermia on land and in the water is the time scale. Hypothermia in water develops at an accelerated rate because water conducts heat away from the body 25 time faster than air at the same temperature. The most common causes of hypothermia on land are a combination of bad weather, such as wind, rain and snow, associated with physical exertion and improper clothing. After the onset of symptoms, death can occur within 30 minutes unless adequate measures are taken.

## COLD EXPOSURE

Exposure to cold can damage local surface tissue and cause general body cooling.

Contributing factors include:

- temperature
- wind velocity
- worker's age and physical condition
- degree of protection from outer clothing or covering
- exposure to cold or icy water.

### *Prevention*

Hypothermia can be prevented on land by taking sensible precautions:

Dress appropriately. Always carry a warm sweater and a waterproof outer garment. Some types of wet clothing can extract heat from the body in cold weather much faster than dry clothing, whereas wool and polar fleece garments, even though wet, retain a reasonably good insulating quality. An uncovered head can account for up to 60% of body heat loss in cold weather socarry a wool toque or cap.

Carry waterproof matches. Build a fire and/or seek shelter as soon as you feel chilled.

Stop and rest periodically, depending on the severity of conditions, BEFORE exhaustion occurs.

Carry extra food. Energy producing items containing fats, sugars and starches, e.g. Candies, raisins & nuts, chocolate, etc. are suggested. Eat frequently and drink sufficient water to avoid de-hydration since the digestion of food requires water.

### *Symptoms*

EARLY STAGES:

Uncontrolled or violent shivering, paleness and numbness with blue coloration to extremities, speech becomes more difficult, digital coordination is lost and muscles become cramped.

LATER STAGES:

Reduced heart and respiratory rate, depressed brain function, irregular pulse, body rigidity, and unconsciousness. Cardiac arrest occurs when the body-core temperature cools below 30°C/86°F.

### *Treatment*

The principle of first aid treatment for hypothermia is to minimize heat loss and add heat to a body whose core temperature has fallen to dangerously low levels and which stabilize at dangerously low levels even after the most aggressive field treatment. In ALL severe cases, hospitalization is urged as soon as possible after the initial first aid treatment.

Mild hypothermia can be helped in the field by lighting a campfire, removing wet clothing and adding dry clothing, blankets or sleeping bags to conserve heat loss. Moderate physical activity is encouraged and warm, sweet drinks (non-alcoholic and caffeine free) are permissible.

A conscious person with severe hypothermia should be gently placed on a stretcher and removed to a sheltered area. Wet clothing should be removed and the body insulated with blankets or sleeping bags to conserve heat. Heat should be added by skin to skin contact with a healthy person. Alternatively, apply heat from warm (40 - 45 °C) wet towels, hot water bottles and chemical heat packs to the head, neck, chest and groin areas.

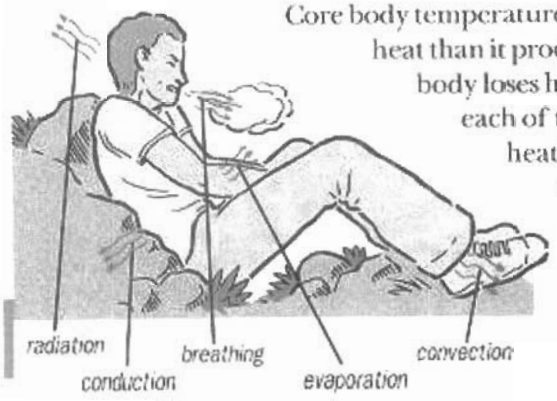
AVOID heating the body extremities. Warm moist air inhalation, if available, is beneficial. Warm, sweet drinks (non-alcoholic and caffeine free) may be given if the victim can swallow freely but are of limited value. Transport immediately to medical aid.

An unconscious severe hypothermia victim requires considerable care in order to survive. Gently place on a stretcher. Carefully assess pulse and respiratory rate for up to two (2) minutes. If no pulse is present, initiate CPR. If respiration only is absent begin mouth to mouth resuscitation. Remove victim to a sheltered area; remove wet clothing and insulate the body from head to toe against further heat loss. Add heat to the head, neck, chest and groin areas as with a conscious victim by the application of warm (40 - 45°C) wet towels, hot water bottles and chemical heat packs. Alternatively, use skin to skin contact with a healthy person. If the victim is breathing adequately, warm moist air inhalation is beneficial. Transport immediately to medical aid.

# Hypothermia

The normal temperature of the body's core is 37°C (98.6°F). If the body core temperature drops more than two degrees, the body's tissues cannot function properly. This state of generalized cooling is called **hypothermia**. Hypothermia, often called **exposure**, kills many Canadians each year—but it is a condition that can be detected and corrected by a first aider if it is recognized early.

## How the body loses heat




Core body temperature drops when the body loses more heat than it produces. There are five ways the body loses heat. The table below explains each of these. In an outdoor emergency, heat loss by conduction and convection (wet and wind) are often the main contributors to hypothermia. But when trying to prevent heat loss, you must look for all the ways the body is losing heat.

*the body's core*

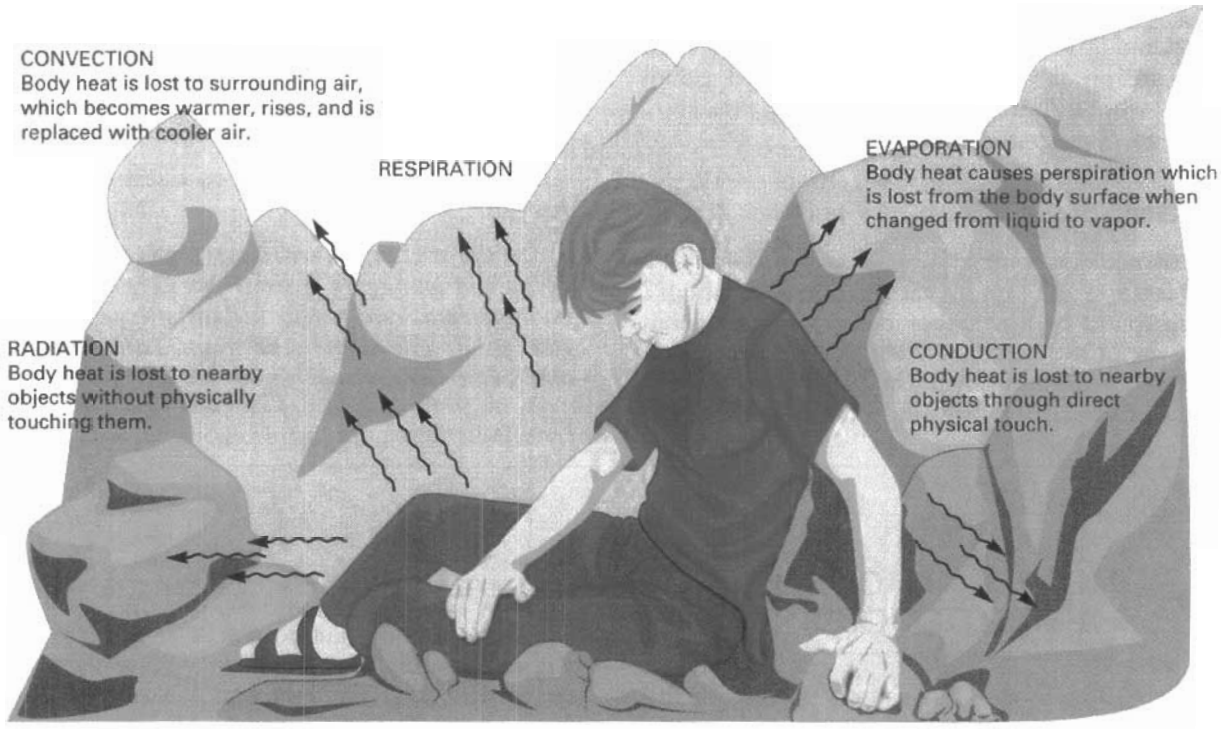



*Figure 24-1 The illustration shows a situation in which a wet, poorly dressed climber has taken shelter in a crevasse or among cold, wet rocks.*

## *3.2) FROSTBITE*

This is another potentially serious hazard when working under extreme cold conditions. A few simple rules are useful.

### *Recognized by: numbness*

- Skin may be dull, white, or waxy in appearance
- Tissue may be solid in more severe cases

DO NOT rub the area; DO NOT apply snow or ice.

If affected area is superficial, thaw with body heat. DO NOT immerse in warm or hot water.

Deep freezing should not be thawed; if thawed, apply a sterile dressing, immobilize, and prevent contamination (High Risk of gangrene occurring).

If frozen limb/part is thawed, DO NOT USE. One can walk on a frozen foot; but once thawed, it must not bear weight until medically treated.

When working with other people, use the Buddy System to periodically check for superficial frostbite. A white spot on somebody else's face is easy to see and identify. Early recognition may prevent more serious damage.

WIND-CHILL INDEX

| WIND SPEED (MPH) | WHAT THE THERMOMETER READS (degrees °F.) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | 40 | 30 | 20 | 10 | 0 | -10 | -20 | -30 | -40 | -50 | -60 |
| | WHAT IT EQUALS IN ITS EFFECT ON EXPOSED FLESH | | | | | | | | | | | |
| CALM | 50 | 40 | 30 | 20 | 10 | 0 | -10 | -20 | -30 | -40 | -50 | -60 |
| 5 | 48 | 37 | 27 | 16 | 6 | -5 | -15 | -26 | -36 | -47 | -57 | -68 |
| 10 | 40 | 28 | 16 | 4 | -9 | -21 | -33 | -46 | -58 | -70 | -83 | -95 |
| 15 | 36 | 22 | 9 | -5 | -18 | -36 | -45 | -58 | -72 | -85 | -99 | -112 |
| 20 | 32 | 18 | 4 | -10 | -25 | -39 | -53 | -67 | -82 | -96 | -110 | -121 |
| 25 | 30 | 16 | 0 | -15 | -29 | -44 | -59 | -74 | -88 | -104 | -118 | -133 |
| 30 | 28 | 13 | -2 | -18 | -33 | -48 | -63 | -79 | -94 | -109 | -125 | -140 |
| 35 | 27 | 11 | -4 | -20 | -35 | -49 | -67 | -82 | -98 | -113 | -129 | -145 |
| 40 | 26 | 10 | -6 | -21 | -37 | -53 | -69 | -85 | -100 | -116 | -132 | -148 |
| | Little danger if properly clothed | | | | Danger of freezing exposed flesh | | | Great danger of freezing exposed flesh | | | | |

Source: U.S. Army

*Figure 24-2 Wind-chill index.*

### 10.1.4 Wind Chill Charts

| WIND CHILL CHART FOR CELSIUS TEMPERATURES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WIND SPEED KPH | THERMOMETER READING (°C) | | | | | | | | | | |
| | 10 | 5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 |
| | WHAT IT EQUALS IN ITS EFFECT ON EXPOSED SKIN | | | | | | | | | | |
| 0 | 10 | 5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 |
| 8 | 8 | 3 | -2 | -7 | -12 | -18 | -23 | -28 | -33 | -39 | -44 |
| 16 | 4 | -2 | -8 | -14 | -20 | -26 | -32 | -38 | -45 | -51 | -57 |
| 24 | 3 | -4 | -11 | -18 | -25 | -32 | -38 | -45 | -52 | -59 | -65 |
| 32 | 0 | -7 | -14 | -21 | -28 | -35 | -43 | -50 | -57 | -64 | -71 |
| 40 | -1 | -8 | -16 | -23 | -31 | -38 | -46 | 53 | -61 | -68 | -75 |
| 48 | -2 | -9 | -17 | -25 | -33 | -40 | -48 | -56 | -63 | -71 | -79 |
| 56 | -3 | -10 | -18 | -26 | -34 | -42 | -50 | -57 | -65 | -73 | -81 |
| 64 | -3 | -11 | -19 | -27 | -35 | -43 | -51 | -59 | -67 | -75 | -83 |
| | **Little Danger** if properly clothed | | | | **Considerable Danger** Exposed skin may freeze within 1 minute | | | **Very Great Danger** Exposed skin may freeze within 30 seconds | | | |

## *3.3) FIRE*

In the event of a fire all site personnel are requested to do the following:

- Fire extinguishers are located in all tents and structures. Ensure that you know how to use them. These are ABC type extinguishers suitable for most types of common fires.
- If the fire is small, try to put it out, then report it to your supervisor.
- If you can not fight the fire because of its size GET OUT. Make every attempt to notify others and evacuate the area. DO NOT re-enter a burning tent or structure.
- All tents and structures are equipped with smoke and carbon monoxide detectors. DO NOT disarm these detectors. Check the batteries for these devices regularly.

In the event of EMERGENCY, seek shelter at a _____. This facility should be sufficiently removed from the main camp area to be effectively isolated. First Aid supplies and radio communication equipment should be located there.

Provide a separate facility for fuel storage, at least 50 meters from buildings and camp. Clearly mark all containers and post area as NO SMOKING.

Highly inflammable materials and substances (gasoline containers, propane bottles etc) must be kept outside and away from all doorways in tents and trailers on Anglo / HBED Camp sites. To avoid sparks from static electricity place containers on ground before refueling.

### 6.4.1 Fire Extinguishers

Every camp employee must know the location of and how to use all fire fighting equipment. Fire extinguishers must be placed in strategic locations including the office and kitchen tents, incineration site, generator enclosures, drill shack, refuelling locations and fuel storage areas. Each camp should have at least one external fire station equipped according to fire regulations.

There are four types of fire extinguishers. However, you will most frequently encounter only three types of fire extinguishers for use in field camps and vehicles. These are: 1) water or foam, 2) carbon dioxide ($CO_2$), and 3) dry chemical. **Use the correct fire extinguisher for a fire**, otherwise you may cause the fire to spread. Fire extinguishers carry labels to indicate the class or classes of fire it can extinguish. Many fire extinguishers are multi-purpose and carry two or more symbols. **Class A and Class B** fire extinguishers carry a numerical symbol to indicate the relative effectiveness of the piece of equipment. The higher the number, the more effective (i.e., bigger) the fire extinguisher.

**Class A** – ordinary combustible material, e.g., wood, cloth, paper, rubber and many plastics. All Class A fires must be extinguished by cooling the material below the temperature of ignition. The burning material must be soaked with an extinguishing substance to prevent reignition.

**Class B** – flammable liquids, e.g., gasoline, grease, oil, diesel, kerosene and tar. Class B fires must be extinguished by removing oxygen (smothered) so the vapors cannot reach the source of ignition. **Never use water.**

**Class C** – electrical equipment, e.g., wiring, fuse boxes, appliances, circuit breakers, machinery and battery powered equipment. Class C fires of "live" electrical equipment must be extinguished by using an **extinguishing substance that does not conduct electricity. Never use water.** Multi-purpose dry chemical fire extinguishers are safe to use but leave a residue that may damage electronic equipment.

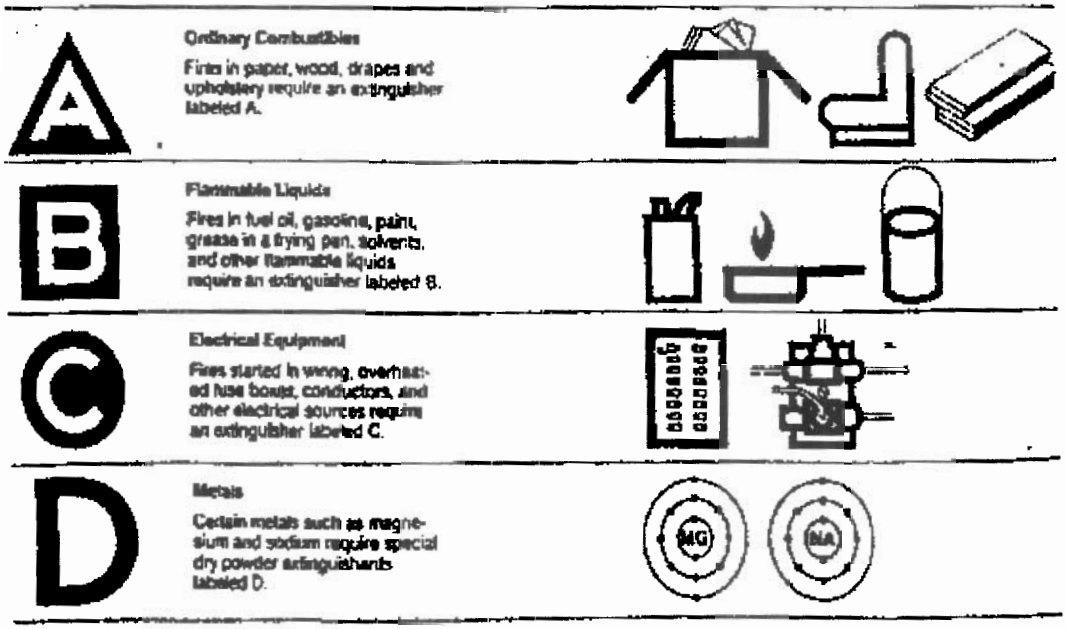
| CLASS of FIRE | FIRE EXTINGUISHER TO USE | DO NOT USE |
|---|---|---|
| **CLASS A** ordinary combustibles | Pressurized water<br>Foam<br>Multi-purpose dry chemical | Carbon Dioxide ($CO_2$)<br>Ordinary dry chemical |
| **CLASS B** flammable liquids | Foam<br>Carbon Dioxide ($CO_2$)<br>Ordinary dry chemical<br>Multi-purpose dry chemical | Pressurized water |
| **CLASS C** electrical equipment | Carbon Dioxide ($CO_2$)<br>Ordinary dry chemical<br>Multi-purpose dry chemical | Pressurized water<br>Foam |

# The ABCD's of Portable Fire Extinguishers

Contractors are required to supply their own extinguishers, however, if a fire does develop and their extinguishers have been spent trying to handle the incident by all means they are to utilize the Anglo / HBED supply.

The first few minutes of a fire will determine the severity of the fire.

1. Determine whether or not you will try to put it out.
2. If yes, locate the fire extinguisher.
3. Proceed to the upwind of the fire. (smoke will not be in your face, as well you will be free from the flames.
4. You should be approxiately 10' to 12' from the fire.
5. Remove the seal or tab, freeing the hose.
6. With a firm grip press down on the plunder to activate the $CO_2$ cartridge.
7. Position yourself about 8' upwind to the edge of the fire.
8. Then squeeze the nozzle, pointing the extinguishig agent to the base of the fire.
9. Use a sweeping action(from side to side) covering the widht of the fire.
10. Advance forward as fast as you are extinguishing the fire.
11. "Do not over run your protection"
12. "Do not go into the burnt area"
13. If the fire is out, wait a few minutes before you leave, in case the fire starts up again.
14. *Report* to your supervisor of the incident, where the fire was and the number of extingusihers used.



### *3.4) WHMIS*

All Anglo American Exploration (Canada) & Hudson Bay Exploration and Development employees are to be trained in WHMIS.

**W**orkplace **H**azardous **M**aterials **I**nformation **S**ystems (WHMIS) is a material's labeling system that addresses the workers "Right to Know".

Right to Know

The Workplace Hazardous Materials Information System (WHMIS) gives everyone the right to know about the hazards of materials they work with and provides the means to find out that information. It does this through:

- labels
- materials safety data sheet (MSDS)
- worker training and education

Health and Safety legislation requires that every worker receives WHMIS training. Hudson Bay Exploration and Development is responsible for providing all hazards information on controlled products received form supplies concerning the use, storage & handling of controlled products.

Controlled products under WHMIS include six classes:

| *CLASS* | | *EXAMPLE* |
|---|---|---|
| Class A: | Compressed Gas | oxygen |
| Class B: | Flammable & Combustible Materials | acetone |
| Class C: | Oxidizing Material | chromic acid |
| Class D: | Poisonous & Infectious Material | |
| | 1. Materials causing immediate and toxic effects | ammonia |
| | 2. Materials causing other toxic effects | asbestos |
| | 3. Bio-hazardous Infectious Material | contaminated blood products |
| Class E: | Corrosive Material | hydrochloric acid, sodium hydroxide |
| Class F: | Dangerously Reactive Material | acetylene |

Supplier labels are required on controlled products with a volume of more than 100 milliliters and must include a product identifier, appropriate hazard symbols, risk phrases (such as "dangerous if inhaled"), precautions (such as "wear rubber gloves"), first aid measures, supplier identifier and a statement that a material safety data sheet (MSDS) is available for the product

Workplace labels are required when controlled products are produced onsite or have been transferred from a supplier (labeled container to a different container).

Workplace labels must include the product identifier, safe handling instructions and a statement that an MSDS is available for the product.

## WHMIS

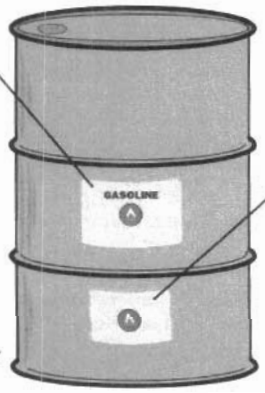
The Workplace Hazardous Materials Information System (WHMIS) is used to identify hazardous materials and to help workers protect themselves from real dangers. WHMIS includes labelling products with supplier labels and workplace labels, and having a material safety data sheet (MSDS) available for each hazardous product in the workplace.

**Know how**

If there are hazardous materials in your workplace, make sure you know how to use WHMIS.

***supplier label***–*these are put on by the supplier of the product, they include:*

- *product identifier*
- *risk phrases*
- *precautionary measures*
- *first aid measures*
- *supplier identifiers*
- *class symbol(s)*
- *reference to MSDS being available*
- *English and French information*
- *a distinct hatchmark border in a contrasting colour to the container to which it is being applied*




***workplace label***–*these are put on at the workplace. they include:*

- *product identifier*
- *safe handling procedures*
- *reference to MSDS being available*

### WHMIS class symbols

***Class A***
*compressed gas*

***Class B***
*flammable and combustible materials*

***Class C***
*oxidizing materials*

***Class D—poisonous and infectious materials***

*division 1*
*materials causing immediate and serious toxic effects*

*division 2*
*materials causing other toxic effects*

*division 3*
*biohazardous infectious materials*

***Class E***
*corrosive material*

***Class F***
*dangerously reactive material*

## 3.5) HAZARDOUS SITES

### (Areas of Old Mine Workings, Shafts, Raises, Stopes)

Under some circumstances our exploration crews may be in an area / need to investigate old or abandoned mine workings.

Before entry it is **extremely** important to secure all necessary permissions / permits and to follow all regulations required by company, local & regional authorities. No company employee shall enter an abandoned mine area / area where mine shafts are present without written permission.

Working in areas where old workings exist is very hazardous, employees must maintain an extraordinary attitude toward personal safety and the safety of their fellow workers. **One must be constantly vigilant for dangers around old mine workings / shafts.**

All must learn to recognize and evaluate the potential hazards in areas where old underground workings exist. If you cannot avoid the hazards through safe techniques, then you must not proceed into the area of underground workings. USE CAUTION when you explore areas of old surface or underground mine workings.

Beware of subsidence at the surface if you must map or sample around old underground mine workings. Heed the following:

- Depressions may indicate the presence of an old mine shaft, a raise or a pit that has been back filled or subsidence over a stope – specifically if the stope was worked upwards to just below the surface.
- Watch for subtle signs of subsidence that indicates instability around shaft's, raises and stopes which approach the surface. Vegetation may obscure cracks and depressions.
- Near old mine shafts, watch for loose material that slumps into the shaft. It may form a funnel shaped crater surrounding the shaft. Look for cracks in the surface some distance from the shaft which indicating slumping is in progress. It is extremely dangerous to approach a slumped shaft.
- Do not enter slump craters to obtain samples unless you are very sure that the bottoms are solid. They may overlie a shaft, a pit or a ventilation raise. Use ropes if there is any doubt about your safety.
- To determine if crater overlies a shaft or a pit, look for evidence that indicates if the area was used as a shaft. Usually you will be able to recognize a shaft by the presence of dump material, machinery, old timbers or a head frame. However, a ventilation raise will have no dump or machinery surrounding it.

## 4. FIRST AID FACILITIES

The First Aid station is equipped with all the necessary equipment required as per the various Regulations. This facility is located at _____.

There will be a FIRST AID sign posted near the entrance to the facility.

All injuries are to be reported to Anglo / HBED representative. In addition, notify the appropriate supervisors as soon as practical and complete the necessary incident report forms.

A Communication device is located at the First Aid station in the event of an emergency.

There are trained "first aid personnel" on site, that will be identified. If you are not personally qualified, seek assistance.

Standard safety alert for Anglo & HBED camps is three blasts. (Possible signaling devices include rifle shots, truck horn, whistle etc).

_____

# 5. TRAVEL

## 5.1) *Highway Travel*

Prior to any trip it is a good practice to perform a general safety orientation of the vehicle before you begin. The newer vehicles have new advanced technology and innovations that may be unfamiliar to some. A general "walk around" of the vehicle is suggested, checking tires, including the spare, and that all lights are working properly. A visual inspection and familiarity of all interior "gadgets" should be done before you begin driving the vehicle.

- **When driving a vehicle avoid reversing (backing up) in the field as much as possible.**
- **Exploration requires driving in all weather conditions. Especially hazardous conditions exist during freeze up and break up conditions.**

**THE FOLLOWING GUIDELINES COULD SAVE YOUR LIFE!**

Preventing a Skid:

1) Avoid sudden changes in steering, acceleration and braking.
2) Keep to the right and slow down on hills and curves.
3) Don't apply brakes, ease off on accelerator when meeting oncoming traffic.
4) Don't use cruise control in slippery conditions.
5) Don't travel if you are tired.
6) Do not pump antilock brakes.
7) Watch for wildlife, especially in the fall and spring.
8) Be cautious when driving around "washboard" areas on steep roadways.
9) Be cautious, slippery conditions can occur on wet clay and roads under construction.

Breakdown Procedures:

1) Pull over on the right shoulder as far as possible and apply the four way flashers.
2) Set out reflector triangles or flares at 25m and 50m intervals, BEHIND the vehicle.
3) Assisting vehicles should park IN FRONT of stranded vehicle.
4) If you require assistance, open the vehicle hood.
5) Refer to the vehicles owners manual for jacking instructions.
6) Be prepared - carry a flashlight in the vehicle.

Recent statistics show an alarmingly high incidence of Highway accidents are caused by people falling asleep at the wheel. **DO NOT be tempted to drive on the highway for any reason unless you are fully alert.**

- Carry an Anglo / HBED recommended safety kit for winter and or summer driving.
- SPEED KILLS, ensure sufficient time is allocated to complete your trip.

### 5.2) Land Travel – Vehicle Driving at Night

- **Driving between sunset and sunrise should be strictly limited. In the far northern latitudes practical procedures are put in place in both summer & winter to address the risks involved.** *Avoid this if at all possible!*
- Policy forbids night driving, except in a case of emergency, or at the discretion of the Regional Manager.
- A driver must not drive if fatigued or ill.
- Use the available driving lights to illuminate the roadside.
- Be on the constant lookout for pedestrians or animals on the road.
- Look out for vehicles without lights.
- If you have to drive, do not go fast and be on the lookout for animals and pedestrians.

### *5.3) Mechanized Travel in the Bush*

A few common sense rules should prevent accidents or serious incidents.

- All operators & passengers to wear approved safety helmets, face-guards & eye protection.
- Become aware of the effects of wind chill factor on exposed skin and dress accordingly. Learn the signs and symptoms of hypothermia and its treatment. **HYPOTHERMIA** is the greatest hazard encountered in snow vehicle travel.
- Ice conditions are most dangerous in early winter during the freeze-up period and in the spring during the thaw or break-up period. **EXTRA CAUTION** must be observed for snowmobile and snowshoe travel during these periods.
- If travel over lakes or rivers is absolutely necessary, test the thickness of the ice beforehand and avoid areas above fast flowing water.
- Watch for overflow conditions. A stuck snowmobile can result in wet feet and an injured back. Stay on existing trails where possible.
- Do not park snowmobiles in areas where they might not be easily seen.
- Shut engine off when refueling the machine.
- Carry an Anglo / HBED winter safety kit for snowmobiles and ATV's.

HAZARD ALERT

### *5.4) Water Safety*

All Anglo & HBED watercraft shall be equipped with the safety equipment required by law.

- Include the following equipment: Life jackets must be worn by each passenger, anchor and rope, paddles, bailing can, signaling device, tools. Company employees are issued survival suits, if work persists beyond 5 days.

- Do not overload boats. Anglo American & HBED policy is NOT to use canoes … they have been replaced with a Zodiac type of watercraft.

- Check local conditions including weather, rapids, rocks, reefs, etc.

### *5.5) AIRCRAFT*

Follow the pilot's instructions!

In all flying situations, the pilot is in command of the aircraft and therefore his judgement should be respected in all situations regarding safety of the machine and occupants. The pilot is responsible for the safe conduct of the aircraft during takeoffs, landings and flight, noting the pilot should brief all members of field crews concerning safety procedures. If there are any questions on procedures that you may have for the pilot, always ask.

Where support services of a Helicopter and or Fixed Wing are required, adhere to the following:

- DO NOT approach any aircraft while propellers are still in motion. Even contact with a slowly turning propeller may cause serious injury.
- Obey any and all aircraft crew's instructions during loading and unloading operations.
- Some cargo may be heavy. Be careful of back injuries, use properly affixed ramps for heavy loads such as fuel drums and certain drill parts. If you require assistance, get it.
- During any in flight operations such as mobilization, demobilization etc., remain seated with your seatbelt properly fastened at all times. Do not unnecessarily disturb the flight crew or cause any sudden distractions. This is particularly important during take off and landing maneuvers.
- When travelling in ANY aircraft always wear suitable apparel – winter parka and winter boots for cold weather travel and good bush boots during summer flying.

***Helicopters***:

The pilot is always to provide helicopter orientation instructions. General guidelines are:

- Always stay within the pilot's field of view, when approaching or leaving a helicopter. ALL passengers should approach AND depart in a crouched position in and from a down slope direction. Never approach or depart an aircraft from or near to the tail rotor.
- Never work near a machine with protruding instruments or loose clothing (hats), which may come into contact with rotors. Hand tools should be carried horizontally below waist level and never in an upright position over the shoulder. Tools carried over the shoulder could possibly strike the rotating blades and cause several personal injury (or death) and damage to the aircraft.

- Never walk towards the rear of machine, due to the rotating tail rotor blades and, in a Hughes 500 series, the jet turbines are located under the tail and can result in significant burns to the passenger.
- Always walk downhill in a crouched position when leaving a helicopter, and walk uphill in a similar couched position when approaching the machine. Wait for the pilot's signal before approaching the helicopter, never approach an aircraft without the consent of the pilot.
- Secure all gear when a helicopter lands or lifts-off. Position yourself upwind of the landing pad, in a crouched position, preferably near a natural protective feature. Maintain visual contact with the machine at all times. Most helicopter accidents occur during takeoff and landing. It is very important for exploration crews to put some time into helicopter pad preparation for the pilot's safety, as well as your personal safety.

  Wind direction: Helicopters land and take off into the wind. Tie flagging to nearby shrubs, or hold up a colored helicopter cloth, to show the pilot both wind direction and strength prior to landing.

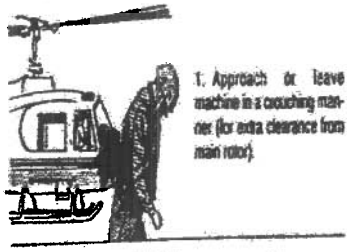
  Pad: Good, solid pads ensure the helicopter does not roll when crews are entering or climbing down from the machine. Ensure the logs are strong enough to support the helicopter, are spaced close enough to span the skid gear, and are secure to avoid rolling when the helicopter lands. Use four or five logs to distribute load, and anchor with rocks or cross logs. Cut off any snags the skid gear may catch on during takeoff. Landing sites are extremely variable and subject to numerous factors including the experience level of the pilot.

  Approach and Departure Route: Select a pad location, with a good, clear approach. Remember, upon landing, a helicopter flares itself to slow airspeed, and will lower the tail boom on final approach. Take the time to cut trees on the approach, and takeoff routes. Ensure the area is clear of all obstructions. If low trees cannot be cut, tie flagging to the top of the snag, to help pilot see the tree, and assist with estimating ground clearance.

  Takeoff: It is best to eliminate radio chatter during landings and takeoff. The conversation should be confined to assisting the pilot, by pointing out the location of snags that might hit the main or tail rotors. People in the machine, should be on the lookout for deadly snags within their field of view, especially in the pilots blind spots near the tail rotor.

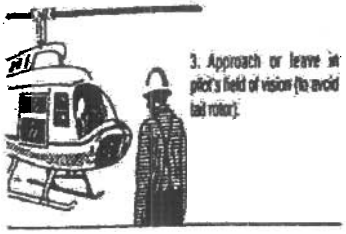
  Crew Ground Position: As a helicopter lands or departs, shield eyes, but be alert and keep watching the helicopter. Since the helicopter lands into the wind, get in a crouch position in front of the helicopter. On the pilot's signal, approach the machine with caution.
- In many exploration camps, larger items are often carried in sling and/or net loads or through the use of lanyards. The pilot should provide the necessary instructions on the correct procedures for all of the equipment being used when moving items in this manner. He should discuss/brief everyone on his planned actions. ALL ground personnel should always remain clear of the flight path of the aircraft during transport of materials, in case the pilot has to hit the safety release of the load, thereby dropping the load immediately. When a load approaches the ground, ensure that gloves are being worn to protect your hands and safety goggles should also be worn to prevent particles from entering into the eyes.

# SAFETY AROUND HELICOPTERS

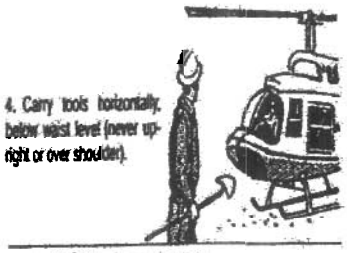


1. Approach or leave machine in a crouching manner (for extra clearance from main rotor).

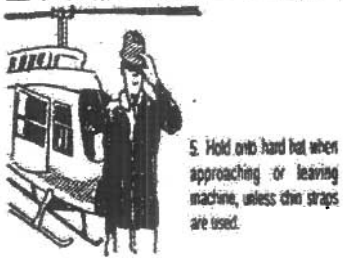
2. Approach or leave on the down slope side (to avoid main rotor).



3. Approach or leave in pilot's field of vision (to avoid tail rotor).

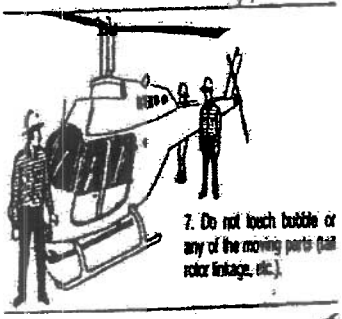


4. Carry tools horizontally, below waist level (never upright or over shoulder).



5. Hold onto hard hat when approaching or leaving machine, unless chin straps are used.

6. Fasten seat belt on entering helicopter and leave it buckled until pilot signals you to get out.



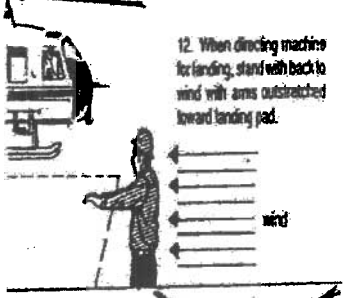
7. Do not touch bubble or any of the moving parts (tail rotor linkage, etc.).

8. Keep helispot clear of loose articles—water bags, groundsheets, empty cans, etc.

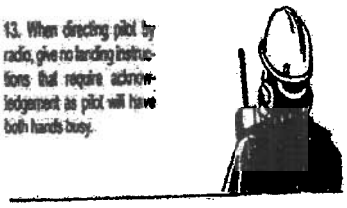
9. Keep cooking fires well clear of helispot.

10. Loading assistants should always be supplied with plastic eye shields.

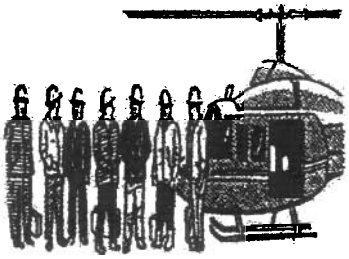
11. After hooking up cargo sling, move forward and to side to signal pilot (to avoid entanglement and getting struck with loaded sling).




12. When directing machine for landing, stand with back to wind with arms outstretched toward landing pad.



13. When directing pilot by radio, give no landing instructions that require acknowledgement as pilot will have both hands busy.



14. When moving larger crews:
(a) Brief them on safety as above.
(b) Keep them together and well back at side of landing zone (this gives the pilot a chance in the event he has to land suddenly either during landing or take-off).
(c) Have them face away from machine during landing and take-off.
(d) Have each man look after his own personal gear.
(e) Have men paired off and ready to get aboard, as soon as pilot gives the signal.

## 6.0 EXPLOSIVES

Anglo American Exploration (Canada) & Hudson Bay Exploration and Development Co., Limited requires that only personnel, properly trained in the regulations governing the handling and use of explosives will be allowed to work, in any way, with these materials.

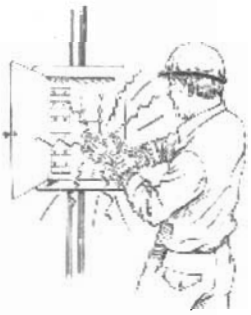
All pertinent regulations such as certification, magazine permits and proper handling MUST ALL be met before the use of explosives is considered.

Any explosives required by contractors or Anglo / HBED must be reported to supervision in order that safety awareness and handling/storage procedures may be established.

## 7. GEOPHYSICS AND ELECTRIC SHOCK

Particular care must be taken when performing geophysical surveys and working with and around geophysical equipment.

- Most accidents are caused by failure to recognize a potentially dangerous situation and to take the necessary preventative measures.
- The promotion of safe working practices is vital and the responsibility of all workers.
- Personal must always be safety aware and must become dedicated to recognizing potential hazards to safeguard one self and fellow workers.



Turn off electric current before working on electrical equipment.

### *7.1) Geophysical Equipment*

Field supervisors & crew chiefs must be thoroughly familiar with safe working procedures of all geophysical equipment in used & must ensure all subordinates are observant of such procedures.

In doing geophysical surveys, individuals are exposed to a variety of potential hazards.

- Practice proper lifting techniques. To avoid back strain when lifting, workers should keep back as straight & upright as possible, use leg muscles instead of back/stomach muscles. Get assistance lifting oversized equipment - geophysical equipment tends to be bulky / heavy.

- Observe adequate precautions when working with or around electrical equipment.
  - Electrical tools must be CSA-approved or double insulated and in good working order.
  - All electrical equipment / tools must have all safety features in place and operational.
  - Electricity is turned off when disassembling / repairing any electrical equipment or tools.

- To perform geophysical surveys, highly inflammable materials such as gasoline and propane are often required. The save handling and storage of such materials must be in compliance with Federal Regulations and Hudson Bay Exploration and Development Health and Safety guidelines. Some equipment used does produce carbon monoxide thus, the appropriate precautions such as the use of carbon monoxide detectors must also be taken.

- Don't fix a motor while it is running.

- New geophysical (Crone, high-powered pulse EM system) equipment has higher voltage potential, and electric shock, injury or death is a higher risk than the older equipment.