

ULU EMERGENCY PROCEDURES MANUAL

UPDATED:
APRIL 2005

LOCATION OF MANUALS

As of May 2, 2004

- 1 Wolfden Office – Thunder Bay
- 2 David Stevenson – Ulu Camp
- 3 Wayne Kirkham/Kirk Keller – Ulu Camp
- 4 Mechanic Office – Ulu Camp
- 5 Electrical Office – Ulu Camp
- 6 First Aid Room – Ulu Camp
- 7 Core Shack (Muster Station) – Ulu Camp
- 8 Ian Neill – High Lake Camp

ULU EMERGENCY PROCEDURES MANUAL

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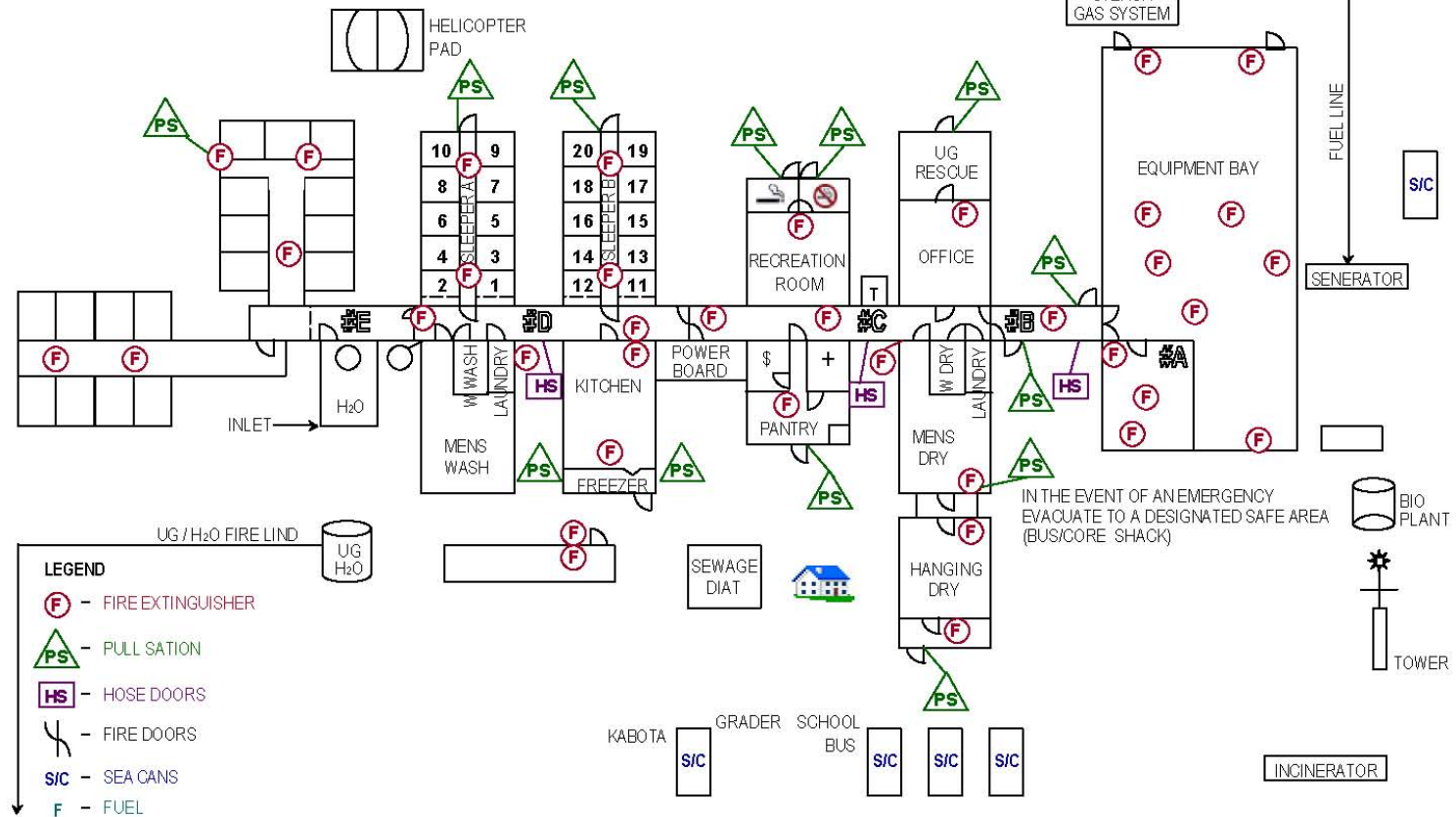
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EMERGENCY RESPONSE DIAGRAM & DEFINITIONS



EMERGENCY SLEEPER
CORE SHACK
MUSTER STATION
GRAVE YARD

ULU EMERGENCY EVACUATION PLAN



ULU EMERGENCY PROCEDURES MANUAL

DEFINITIONS

CONTROL ROOM - The Control Room is located at the rear of the office. This is the meeting area to determine what appropriate responses are required in an emergency. This area will also act as a treatment centre if there are more casualties requiring treatment than the infirmary can accommodate.

ALTERNATE CONTROL ROOM - The Core Shack is the designated alternate control room.

ALTERNATE SAFE AREAS - In the event that the accommodations are evacuated, the BUS and the CORE SHACK will become alternate safe areas. Both locations have independent heat sources.

STENCH GAS - Ulu is equipped with a stench gas warning system. Stench gas is a common name for EHTANETHIOL gas. The gas has a smell that is distinctive and similar to that found in natural gas. It is released to underground through compressed air lines and at the ventilation fan.

REPORTABLE INCIDENT – A reportable incident, as defined by the NWT Mine Health and Safety Act and Regulations, Part 16, is “**an incident involving serious injury or death**”.

EMERGENCY
TELEPHONE
NUMBERS

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY CONTACT LIST

ULU –

PROJECT MANAGER

DAVID STEVENSON
ULU: (604) 759-0605
TBAY OFFICE: (807) 346-2762
HOME: (705) 267-5757
CELL: (807) 472-0908

CAMP MANAGERS

WAYNE KIRKHAM or
KIRK KELLER
ULU: (604) 759-0602

NURSE/FIRST AID ATTENDANT

ULU: (604) 759-0604

HIGH LAKE –

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IAN NEILL
HIGH LAKE: (604) 759-0473

WOLFDEN RESOURCES INC. –

EWAN DOWNIE, PRESIDENT

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ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY CONTACT LIST (CONT'D)

EXTERNAL AVIATION SUPPORT –

BEARSKIN AIRLINES	THUNDER BAY	807 – 577 – 1141
GREAT SLAVE HELICOPTERS	YELLOWKNIFE	780 – 720 – 0775
ADLAIR AVIATION	CAMBRIDGE BAY	867 – 983 – 2569
PTARMIGAN AIRWAYS	YELLOWKNIFE	867 – 873 – 4461
AIR TINDI	YELLOWKNIFE	867 – 920 – 4177
SUMMIT AIR	YELLOWKNIFE	867 – 669 – 9789

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EMERGENCY NUMBERS –

STANTON GENERAL HOSPITAL YELLOWKNIFE, NT	867 - 669 - 4111
MEDIVAC (STANTON G.H.) YELLOWKNIFE, NT (PATIENT REFERRAL UNIT – TO ARRANGE FOR PLANE)	867 - 669 - 4115
R.C.M.P. YELLOWKNIFE, NT	867 - 920 – 8311 or 867 - 669 - 1111
CORONER YELLOWKNIFE, NT	867 - 873 – 7460 or 867 - 873 - 8168
WCB PREVENTION SERVICES EMERGENCY AFTER HOURS	867 - 873 - 7078 867 - 873 - 0123 867 - 873 - 0262 (FAX)
SYLVESTOR WONG (Chief Inspector)	867 - 669 - 4408

PETROLEUM / CHEMICAL SPILL –

24 HOUR SPILL HOTLINE YELLOWKNIFE, NT	867 – 920 – 8130 867 – 873 – 6924 (FAX)
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WILDLIFE –

NUNAVUT SUSTAINABLE RESOURCES KUGLUKTUK, NU	867 – 982 – 7240 867 – 982 – 3701 (FAX)
KUGLUKTUK HUNTERS & TRAPPERS ASSOCIATION KUGLUKTUK, NU	867 – 982 – 4908

FATALITY NOTIFICATION

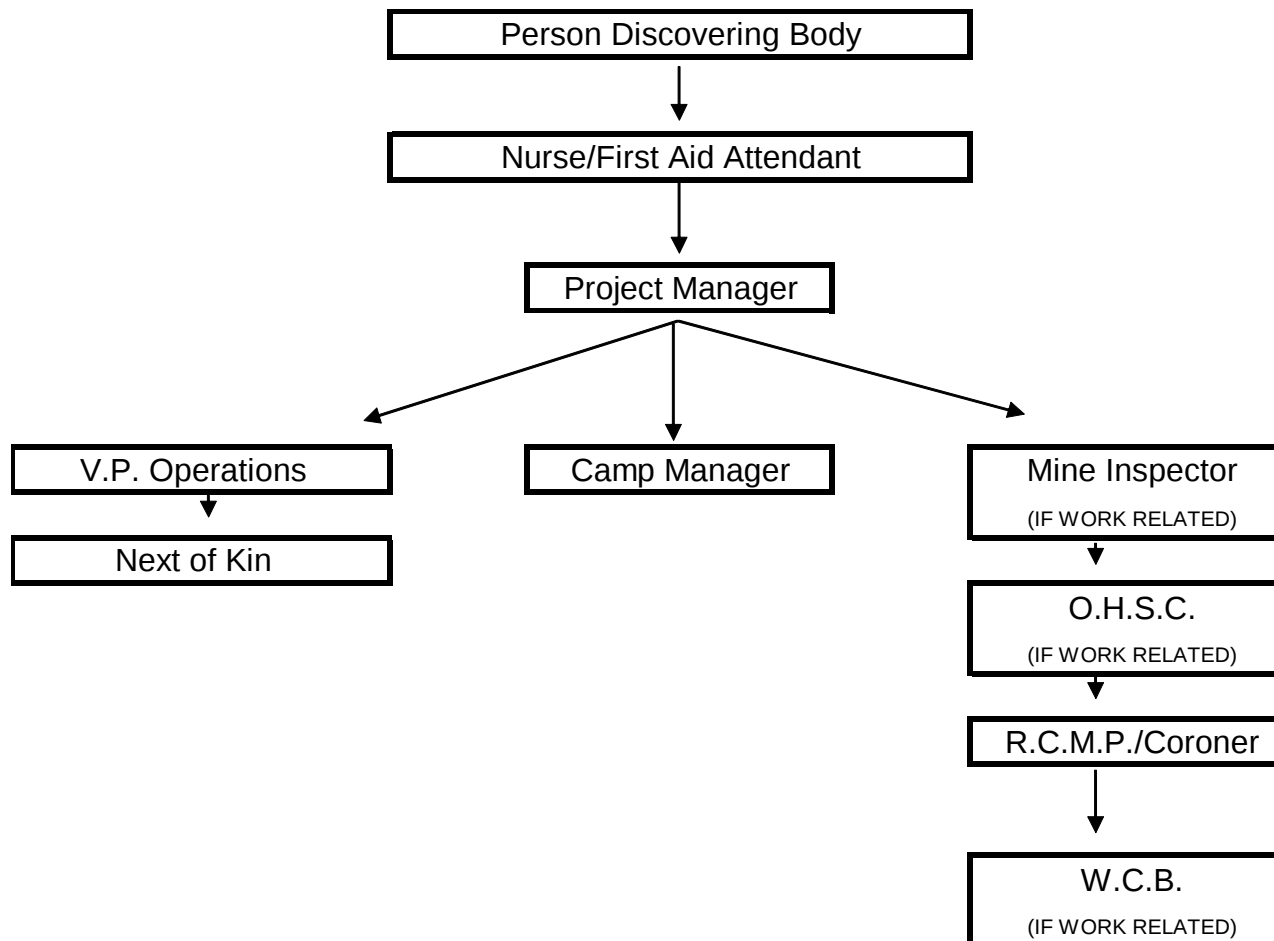
FATALITY NOTIFICATION

In the unfortunate event of a fatality, the procedures for notification and organization are as follows.

Care must be taken to ensure the scene is safe and undisturbed for the investigation team.

Contact is to be made with the Wolfden Thunder Bay office and proper authorities to advise them of the situation and provide assistance as required.

FATALITY NOTIFICATION PROCEDURE - ULU



ULU EMERGENCY PROCEDURES MANUAL

FATALITY NOTIFICATION PROCEDURE

In the event of a fatality, as a result of an accident or accidental cause, the following notification procedure will be followed.

Person discovering the casualty/body:

1. Secure the scene
2. Inform the Project Manager or Nurse/First Aid Attendant

Nurse/First Aid Attendant:

1. Record information from caller as per the Surface/Underground Emergency Sheets

Project Manager:

1. Ensure the scene is secure and safety of all personnel is maintained
2. Inform Camp Manager
3. Inform V.P. Operations
4. Inform R.C.M.P./Coroner re: notifying the next of kin
5. Phone W.C.B. Prevention Services 867 – 873 - 0123
6. Inform OHSC
7. Inform surface crew of aircraft arrival

Camp Manager

1. Follow Emergency Telephone Block Procedures
2. Disconnect short-wave radio
3. Assist Nurse/First Aid Attendant as required

ULU EMERGENCY PROCEDURES MANUAL

SURFACE/UNDERGROUND EMERGENCY CHECKLIST:

1. Record caller's name: _____
2. Caller's location _____
3. Nature of emergency _____
4. Location of emergency _____
5. Name of Injured/ill _____
6. Number of injured/ill _____
7. Types of injuries/illness _____
8. Time 1st call came in _____
9. Notify Nurse/First Aid Attendant and Project Manager immediately
10. If mobilization or evacuation is required, notify the Camp Manager to have equipment and vehicles readied

Instruct the caller to stay with the injured/ill until help arrives

If required instruct the caller that First Aid Supplies are located at:

- U/G refuge station
- surface mobile shop
- powerhouse control room
- first aid room
- office
- core shack

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE CHECKLIST:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All telephones will be disconnected and brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

ULU EMERGENCY PROCEDURES MANUAL

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ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE OPERATOR CHECKLIST:

1. Check with Camp Manger to verify the telephones have been put on Emergency mode
2. Monitor incoming telephone calls
 - direct calls for the Nursing/First Aid Station only if related to the emergency
 - direct all other calls to the Project Manager if related to the emergency
3. Do NOT release any information to outside parties regarding the emergency
4. Record names, phone numbers and times of all incoming calls related to the emergency
5. Record the time the emergency telephone procedures were canceled (by the Project Manager only)

CALL RECORD SHEET: (Use back of sheet if more space is required)

Time:	Caller:	Phone #:	Message:	Relayed to:

AVIATION EMERGENCIES

AVIATION EMERGENCY

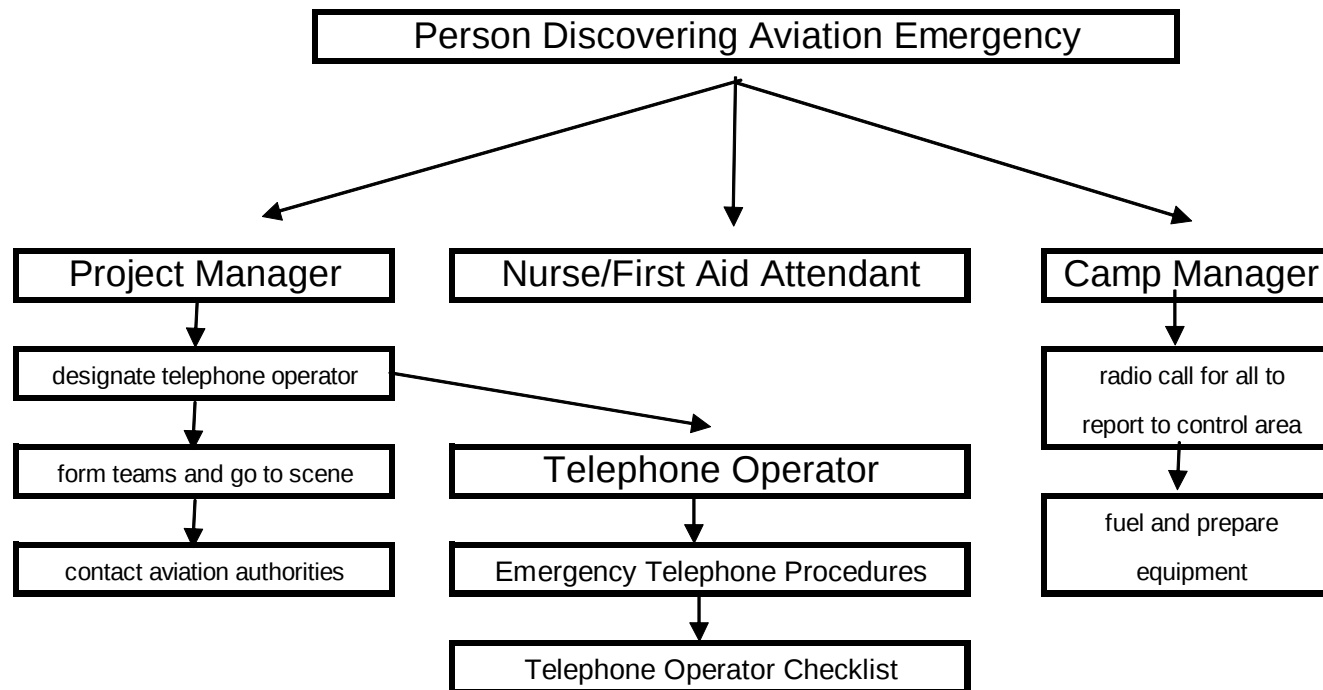
Flying in the north presents many types of hazards including extreme cold temperatures and isolated environments. Appropriate cold weather clothing and gear is mandatory before flying is allowed. Survival gear is carried on the aircraft at all times.

In the event of an aviation accident, resources are limited as ground travel is difficult and in some cases impossible due to the terrain.

Contact with the High Lake camp site, Wolfden Thunder Bay office and other areas would be made to assist as required.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

AVIATION EMERGENCY PROCEDURE - ULU



ULU EMERGENCY PROCEDURES MANUAL

AVIATION EMERGENCY COMMUNICATION

In the event of an aviation emergency, the following communication equipment is located in the main camp office:

SATELLITE PHONE

Located in: Geology Office
First Aid Room
Phone Booth

VHF AM BASE STATION

- monitor channel 1 - 122.8
- communicates with aircraft

ULU EMERGENCY PROCEDURES MANUAL

AVIATION EMERGENCY

If notified of an aviation emergency, the following procedures will be followed:

Person Discovering Aviation Emergency:

1. Inform the Project Manager
2. Inform Nurse/First Aid Attendant
3. Inform Camp Manager

Project Manager:

1. Designate a telephone operator
2. Form teams and go to scene
3. Notify the appropriate departments as per the Aviation Emergency checklist they have (Dept. of Transportation, R.C.M.P., etc.)

Camp Manager:

1. Radio call to have everyone report to the control center for further instructions
2. Designate person to fuel and deliver bus to door to transport rescue team
3. Fuel pick-ups and prepare necessary equipment. Have drivers remain with vehicles and wait for instruction
4. If there is not enough surface crew members to fulfill tasks, then Project Manager to request help from other departments
5. Deliver other supplies as requested
6. If requested, have gensets prepared to go to the airstrip for lights, etc.
7. Assist Nurse/First Aid Attendant as required
8. Follow Camp Managers checklist

Nurse/First Aid Attendant:

1. Follow Health Services checklist

Telephone Operator:

1. Follow Emergency Telephone Block Procedures
2. Follow Telephone Operator checklist
3. Record pertinent information, sequence and timing of events

ULU EMERGENCY PROCEDURES MANUAL

AVIATION EMERGENCY HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Radio operator will inform the number of passengers
on downed aircraft _____
3. Inform Yellowknife Stanton Hospital @ 867-669-4111
of the situation (if required) _____
4. Inform Stanton Hospital, patient referral, 867-669-4115
if Medivac is required _____
5. Prepare to go to site if required _____
6. If the number of casualties is greater than can be
accommodated in the infirmary, have Camp Manager
prepare beds or move mattresses to control area _____
7. Have necessary medical supplies moved to treatment
location _____
8. Request help from other departments as required _____
9. As patient arrive, designate 'first aiders' and helpers to
patient. If there are too many patients, key individuals
should be given responsibility for a wing of 'first aiders'
and patients _____
10. Assign responsible person to monitor the nursing/first aid
station phone. Instruct that person not to make outside
calls unless authorized by Nurse/First Aid Attendant _____
11. Arrange medivac if required _____

ULU EMERGENCY PROCEDURES MANUAL

SURFACE CREW CHECKLIST

Upon being notified by the Project Manager of an emergency situation, the following procedures will be followed:

1. The Camp Manager will designate a person to have the bus fueled and readied to transport persons as required
2. All pickups and necessary equipment will be fueled and will standby for further instructions
3. The surface crew will standby to deliver other supplies as required and to assist if needed
4. If requested, prepare emergency genset to be taken to the airstrip for lights etc.

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All phones will be disconnected and brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

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CALL RECORD SHEET: (Use back of sheet if more space is required)

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ULU EMERGENCY PROCEDURES MANUAL

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse/First Aid Attendant - prepare to move mattresses and bedding as directed.
2. Prepare to have coffee, tea, juice and snacks to the control area
3. Post guard to prevent unnecessary people from entering the treatment area
4. Prepare meals as required
5. Assist as required

FUEL / CHEMICAL SPILLS

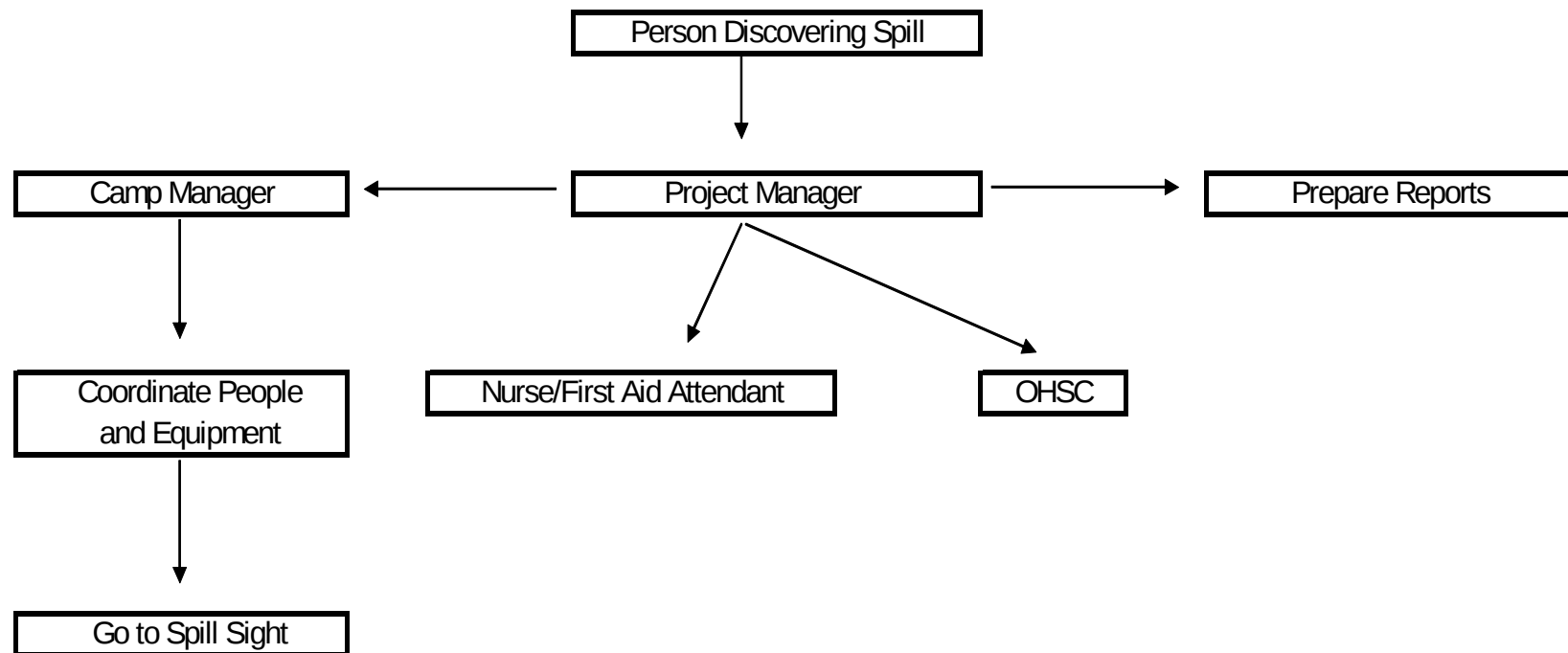
PETROLEUM / CHEMICAL SPILLS

While precautions are taken when transporting and storing petroleum products and toxic materials, a contingency plan is available to outline the means for responding to spills and accidents in a way that will minimize health hazards, environmental damage and clean up costs.

A fully equipped emergency spill trailer as well as various pieces of equipment are available to assist with clean up and recovery.

A registered nurse or first aid attendant (minimum Level 1) and fully equipped infirmary as well as a rescue team are available at Ulu in the event of an emergency. High Lake camp site personnel are also available to assist.

PETROLEUM/CHEMICAL SPILL PROCEDURE - ULU



ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS

In the event of a petroleum/chemical spill the following procedures will be followed.

Person Discovering Spill:

1. Inform the Project Manager
2. If the spill is minor in nature, use absorbent mats and clean up immediately

Project Manager:

1. Assess situation and determine appropriate spill response
2. Inform surface crew to deliver Emergency Spill trailer to spill site
3. Inform the Nurse/First Aid Attendant
4. Inform the Camp Manager
5. Designate teams and determine each teams responsibilities
6. Supervise clean-up and disposal activities as per the appropriate 'Spill Response' sheets
7. Contact 24 HOUR SPILL HOTLINE and report spill 867-920-8130
8. Within 8 hours, fill out and fax 'Spill Report' form to Water Resources Officer Iqaluit 867-975-4298 (phone) 867-979-6445 (fax)
9. Ensure full report is issued to Water Resources Branch Manager

Surface Crew:

1. Assist with clean-up and disposal activities as directed using the appropriate measures for each spill type

Nurse/First Aid Attendant:

1. As per Nursing/First Aid Station checklist

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ULU EMERGENCY PROCEDURES MANUAL

SPILL COORDINATOR CHECKLIST:

1. Contact Camp Manager to provide clean up assistance with
 - manpower
 - transportation
 - heavy equipment, etc.
2. If required, have surface crew deliver the Emergency Spill Kit to spill site
3. Supervise clean up and disposal activities - see 'action plans' that follow
4. Initiate Accident Investigation Procedure
5. Contact the 24 HOUR SPILL HOTLINE, within 4 hours of discovery and report the spill (867) 920-8130 Yellowknife.
6. Fax the "spill report" form to the Water Resources Officer (867) 979-6445 in Iqaluit.
7. Provide a full report of the spill to the Water Resources Branch manager within 30 days

ULU EMERGENCY PROCEDURES MANUAL

SPILL HANDLING PROCEDURE CHECKLIST:

1. Access the situation and act quickly:
 - place poly leak to catch the spill at the hatch cover
 - use snow, sand or gravel to form a basin with the poly to contain the leakage
 - attach hatch cones to hatch covers
 - attach suction hose to hatch cone and pump
 - attach discharge hose to pump and place other end in empty drums
 - open hatch cover
 - pump until no flow through pump, then put suction hose directly in tank
 - pump vessel empty before trying to right it
 - remove vessel from spill vicinity and clean up spill
 - remove contaminated snow, sand or gravel
 - backfill with clean material
 - return equipment to storage ready area for next use
 - reorder supplies
2. Discuss procedure with the Spill Coordinator

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

Spill Containment/Recovery Equipment:

Spill containment / recovery equipment available at ULU shall include but not be limited to:

- Manpower
- Heavy equipment i.e.: loaders, dozers, trucks & tankers
- Sorbent booms & pads
- Valves & fittings
- Hatch cone cover
- Pumps & parts
- Polyethylene
- Shovels - assortment
- Tiger torches & propane bottles
- Ice auger parts and extensions
- Hoses (of various sizes) and fitting
- Chainsaws and parts
- Hammers (various sizes)
- Lumber
- Pri-bars
- Cable cutters
- Fire extinguisher
- Cable slings and shackles
- Rakes and pitch forks
- Dust masks
- Empty drums
- Personal protective equipment

All equipment is in a self-contained van and is stored in such a manner as to be readily available on short notice. On completion of each spill response exercise, all equipment and materials are cleaned/replaced and stored for further use should the need arise.

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

Equipment Available for Recovery:

D8 Cat

Front End Loaders

Tractor & Trailers

Cherry Picker/Bed Truck

Commander

Vacuum Truck

Booms & Absorbent Mats

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILL OF **DIESEL FUEL**:

RESPONSE:

- STOP the flow if possible
- CONTAIN flow of oil by dyking, barricading or blocking flow by any means available. Use earth moving equipment if nearby
- if flow has reached flowing natural stream, mobilize team to deploy river boom, skimmer and sorbent booms
- if possible, pump fuel into a tanker unit

HAZARDS:

- slightly toxic by ingestion, highly toxic if aspirated
- flammable

ACTION FOR FIRE:

- approach fire from up wind side
- use carbon dioxide or dry chemical for small fires, foam or water spray (fog) for large fires note: water may spread the fire
- use fog streams to protect rescue teams and trapped people
- use water to cool surface of tanks
- divert the diesel fuel to an open area and let it burn off under control
- where diesel fuel is running downhill, try to contain as quickly as possible
- if the fire is put out before all diesel fuel is consumed, beware of re-ignition
- rubber tires are almost impossible to extinguish after involvement with fire. Have vehicles with burning tires removed from danger area

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILL OF **DIESEL FUEL** (con't):

RECOVERY:

- unburned diesel fuel can be soaked up by sand, peat moss or by chemical sorbents
- if necessary, contaminated soil should be excavated
- diesel fuel entering the ground can be recovered by digging sumps or trenches
- diesel fuel on a water surface should be recovered by skimmers and sorbent booms

DISPOSAL:

- incineration under controlled conditions
- contaminated soil can be stored in the containment aprons at the ULU fuel bermed area

MSDS SHEETS ARE IN THE RIGHT TO KNOW STATION.

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILL OF **GASOLINE & AVIATION FUEL**:

RESPONSE:

- STOP the flow if possible
- ELIMINATE all possible sources of ignition (i.e.: extinguish cigarettes, shut off motors, etc.)
- EVACUATE danger area
- CAREFULLY CONSIDER the hazards and merits of trying to contain the spill. Contain only if safe to do so, and obvious benefit of containment is apparent (i.e.: contain if flowing towards a creek) otherwise leave to spread and evaporate.
- Do not attempt to contain gasoline or aviation fuel spill on water but rather allow it to spread and evaporate
- VENTILATE vapors if spilled in an enclosed area

HAZARDS:

- highly flammable
- forms explosive mixture with air
- easily ignited by flame or spark
- moderately toxic by ingestion, highly toxic if aspirated

ACTION FOR FIRE:

- use carbon dioxide or dry chemical for small fires, foam or water spray (fog) for large fires note: water may spread the fire
- use jet streams to wash away burning gasoline
- use fog streams to protect rescue teams and trapped people
- use water to cool surface of tanks
- divert gasoline to an open area and let it burn off under control
- where gasoline and aviation fuel is running downhill, try to contain as quickly as possible
- if the fire is put out before all gasoline or aviation fuel is consumed, beware of re-ignition
- rubber tires are almost impossible to extinguish after involvement with fire. Have vehicles with burning tires removed from danger area

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF **GASOLINE & AVIATION FUEL**: (con't)

RECOVERY:

- unburned gasoline & aviation fuel can be soaked up by sand, peat moss or by chemical sorbents
- if necessary, contaminated soil should be excavated
- gasoline and aviation fuels entering the ground can be recovered by digging sumps or trenches
- gasoline and aviation fuels on a water surface should be recovered by skimmers and sorbent booms

DISPOSAL:

- incineration under controlled conditions
- evaporation

MSDS SHEETS ARE IN THE RIGHT TO KNOW STATION.

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF LUBRICATING & HYDRAULIC OIL:

RESPONSE:

- STOP the flow if possible
- ELIMINATE open flame and ignition sources
- CONTAIN flow of oil by dyking, barricading or blocking the flow by any means available
- if flow has reached natural stream, mobilize teams to deploy river boom, skimmer and sorbent booms

HAZARDS:

- slightly toxic by ingestion
- combustible

ACTION FOR FIRE:

- use carbon dioxide or dry chemical for small fires, foam or water spray (fog) for large fires note: water may spread the fire
- use fog streams to protect rescue teams and trapped people
- use water to cool surface of tanks
- divert the oil to an open area and let it burn off under control
- where oil is running downhill, try to contain as quickly as possible
- if the fire is put out before all oil is consumed, beware of re-ignition
- rubber tires are almost impossible to extinguish after involvement with fire. Have vehicles with burning tires removed from danger area

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF LUBRICATING & HYDRAULIC OIL: (con't)

RECOVERY:

- unburned oil can be soaked up by sand, peat moss or by chemical sorbents
- if necessary, contaminated soil should be excavated
- oils entering the ground can be recovered by digging sumps or trenches
- oils on a water surface should be recovered by skimmers and sorbent booms

DISPOSAL:

- incineration under controlled conditions
- burial at an approved site

MSDS SHEETS ARE IN THE RIGHT TO KNOW STATION.

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF ETHYLENE GLYCOL ANTIFREEZE:

RESPONSE:

- STOP the flow if possible
- ELIMINATE open flame and ignition sources
- CONTAIN flow of oil by dyking, barricading or blocking the flow by any means available
- PREVENT antifreeze from entering any flowing stream

HAZARDS:

- moderately toxic by ingestion and inhalation
- flammable

ACTION FOR FIRE:

- use carbon dioxide or dry chemical for small fires, foam or water spray (fog) for larger fires

RECOVERY:

- ethylene glycol antifreeze can be soaked up by peat moss or commercial sorbents
- access to spilled or recovered ethylene glycol by mammals should be prevented

DISPOSAL:

- incineration under controlled conditions
- burial at an approved site

MSDS SHEETS ARE IN THE RIGHT TO KNOW STATION.

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF ANFO & ALL CLASS I EXPLOSIVE:

INITIAL SPILL:

RESPONSE:

- STOP the flow if possible
- ELIMINATE open flame and ignition sources
- PREVENT anfo from contacting water
- if anfo does contact water, CONTAIN solution to as small an area as possible - consider dyking
- ISOLATE are of spill preferably by roping off affected area

HAZARDS:

- may explode under confinement or high temperatures
- flammable
- low toxicity

ACTION FOR FIRE:

- for fires involving large quantities of anfo - evacuate and to not attempt to fight fire
- for fires involving small quantities of anfo - use large amounts of water to extinguish
- anfo may detonate in fire under severe impact or confinement

RECOVERY:

- spills of anfo on dry surfaces can simply be shoveled into containers

ULU EMERGENCY PROCEDURES MANUAL

PETROLEUM/CHEMICAL SPILLS (con't)

ACTION PLAN FOR SPILLS OF ANFO & ALL CLASS I EXPLOSIVE: (con't)

RECOVERY: (con't)

- spills of anfo on wet surfaces or exposed to rain should be shoveled into waterproof containers as soon as possible to minimize the quantity of ammonium nitrate being dissolved
- anfo or a resulting ammonium nitrate solution must not be allowed access to any flowing stream
- sorbents such as peat moss or chemical sorbents should be used to recover any oil emanating from the anfo spill
- soil heavily contaminated with ammonium nitrate should be excavated if the affected ground water threatens to travel to an adjacent flowing stream

DISPOSAL:

- anfo recovered from a spill may be used in the mine
- ammonium nitrate solutions and soil containing ammonium nitrate should be disposed of in the tailings ponds
- sorbents used to recover the oil may be incinerated under controlled conditions or buried at an approved site
- anfo can be disposed of by detonation or incineration under knowledgeable supervision

MSDS SHEETS ARE IN THE RIGHT TO KNOW STATION.

ULU EMERGENCY PROCEDURES MANUAL

MATERIAL SAFETY DATA SHEETS:

Complete MSDS sheets are available for the following items and are updated on a regular basis

All sheets are available in the 'RIGHT-TO-KNOW' stations

ARDEE 32, 68, 100, 150, 222
R C F 1000 - RECIPROCATING COMPRESSOR FLUID
COMPRESSOR OIL 32, 68, 100, 150
SUPER COMPRESSOR FLUID 32, 46, 68, 100, 150
CUTSOL
DEXRON - III / MERCON AUTOMATIC TRANSMISSION FLUID
DIESEL FUEL
DURATRAN
FUEL OIL
GASOLINE, UNLEADED
GEARLUBE TOS 75W90, 80W90, 80W140, 85W140
BARIMOL GREASE, HEAVYWEIGHT
GREASE 0G-0, 0G-1, 0G-2
SEMI-FLUID GREASE EP
HARMONY AW 22, 32, 46, 68, 80, 100
HARMONY HVI 22, 36, 60
JET B AVIATION TURBINE FUEL
KEROSENE
MULTIFLEX MOLY EP 1, EP 2
OUTBOARD MOTOR OIL - SNOWMOBILE MOTOR OIL
PETROSOL 3139
PRECISION EMB GREASE
PRECISION EP 1, EP 2
RALUBE 40, 1024, 1340, 1724, 1740, 2040
SUPER PLUS SAE 10W-30, 15W-40
SUPER PLUS 10W, 20W20, 30, 40, 50
SUPER PLUS ARCTIC 0W30 MOTOR OIL
SUPREME LO TEMP
SYNGEAR 75W90 (WITH TOS)
ULTIMA EP 32, 68, 100, 150, 220, 320, 460, 680

SURFACE MEDICAL EMERGENCY

SURFACE MEDICAL EMERGENCY

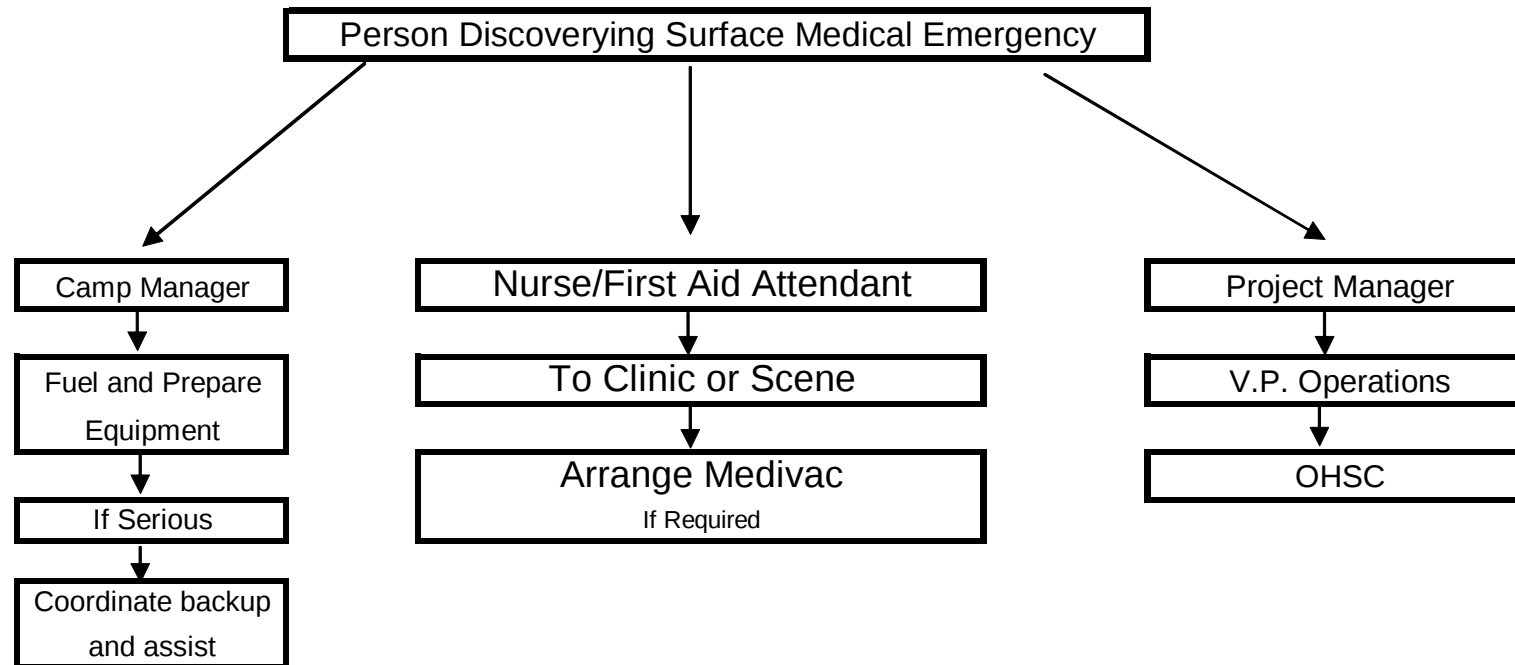
While the organization stresses compliance with the Mine Safety Act and company safe work procedures, potential for industrial accidents exist due to the nature of the environment and job responsibilities.

A registered nurse or a first aid attendant (minimum Level 1) and fully equipped infirmary, as well as a rescue team, are available to support the treatment of persons.

The High Lake camp site, Yellowknife Hospital, and Medivac center are available to assist as required.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

SURFACE MEDICAL EMERGENCY - ULU



ULU EMERGENCY PROCEDURES MANUAL

SURFACE MEDICAL EMERGENCY

In the event of a surface medical emergency the following procedures will be followed.

Person Discovering Surface Medical Emergency:

1. Inform the Project Manager
2. Inform the Nurse/First Aid Attendant
3. Inform the Camp Manager

Project Manager:

1. Designate Telephone Operator
2. Coordinate treatment and movement of people
3. Assure site is secure for investigation

Camp Manager:

1. Designate person to fuel and deliver bus to door and wait to transport as required
2. Fuel pick-ups and prepare necessary equipment. Have drivers remain with vehicles and wait for instruction
3. If there are not enough surface crew members to fulfill tasks, then Project Manager to request help from other departments
4. Deliver other supplies as requested
5. If requested, have gensets prepared to go to airstrip for lights, etc.
6. Follow Camp Manager checklist

Nurse/First Aid Attendant:

1. Follow Health Services checklist

Telephone Operator:

1. Follow Emergency Telephone Block Procedures
2. Follow Telephone Operator checklist
3. Record information as per the Surface/Underground Medical Emergency sheets

ULU EMERGENCY PROCEDURES MANUAL

SURFACE/UNDERGROUND EMERGENCY CHECKLIST:

1. Record caller's name: _____
2. Caller's location _____
3. Nature of emergency _____
4. Location of emergency _____
5. Name of Injured/ill _____
6. Number of injured/ill _____
7. Types of injuries/illness _____
8. Time 1st call came in _____
9. Notify Nurse/First Aid Attendant and Project Manager immediately
10. If mobilization or evacuation is required, notify the Camp Manager to have equipment and vehicles readied

Instruct the caller to stay with the injured/ill until help arrives

If required instruct the caller that First Aid supplies are located at :

- U/G refuge station
- surface mobile shop
- powerhouse control room
- clinic
- office
- core shack

ULU EMERGENCY PROCEDURES MANUAL

HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Inform Yellowknife Stanton Hospital @ 867-669-4111
of the situation (if required) _____
3. Prepare to go to site if required _____
4. If the number of casualties is greater than can be
accommodated in the infirmary, have Camp Manager
prepare beds or move mattresses to control area _____
5. Have necessary medical supplies moved to treatment
location _____
6. Request help from other departments as required _____
7. As patient arrive, designate 'first aiders' and helpers to
patient. If there are too many patients, key individuals
should be given responsibility for a wing of 'first aiders'
and patients _____
8. Assign responsible person to monitor the nursing/first aid
station phone. Instruct that person not to make outside calls
unless authorized by Nurse/First Aid Attendant _____
9. Arrange medivac if required _____

ULU EMERGENCY PROCEDURES MANUAL

SURFACE CREW CHECKLIST

Upon being notified by the Project Manager of an emergency situation, the following procedures will be followed:

1. The Camp Manager will designate a person to have the bus fueled and readied to transport persons as required
2. All pickups and necessary equipment will be fueled and will standby for further instructions
3. The surface crew will standby to deliver other supplies as required and to assist if needed
4. If requested, prepare emergency genset to be taken to the airstrip for lights etc.

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All phones will be disconnected and brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY CONTACT LIST

ULU –

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DAVID STEVENSON
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TBAY OFFICE: (807) 346-2762
HOME: (705) 267-5757
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SUPERVISORS

WAYNE KIRKHAM or
KIRK KELLER
ULU: (604) 759-0602

NURSE/FIRST AID ATTENDANT

ULU: (604) 759-0604

HIGH LAKE –

PROJECT MANAGER

IAN NEILL
HIGH LAKE: (604) 759-0473

WOLFDEN RESOURCES INC. –

EWAN DOWNIE, PRESIDENT

OFFICE: (807) 346-1668
CELL: (807) 473-6723

ULU EMERGENCY PROCEDURES MANUAL

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse/First Aid Attendant - prepare to move mattresses and bedding as directed.
2. Prepare to have coffee, tea, juice and snacks to the control area
3. Post guard to prevent unnecessary people from entering the treatment area
4. Prepare meals as required
5. Assist as required

SURFACE FIRE

SURFACE FIRE EMERGENCY

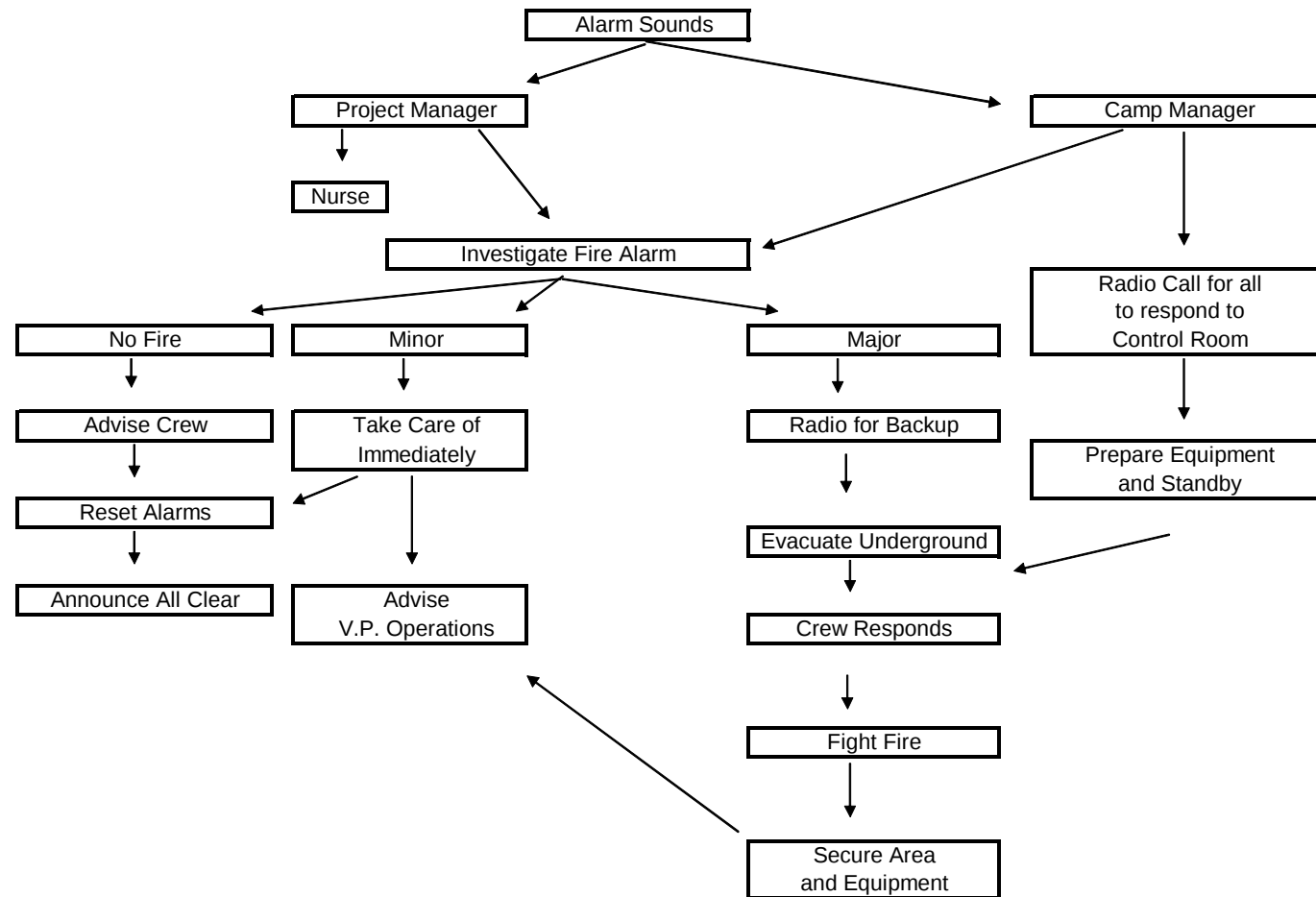
Surface fire potential is minimal. Building construction complies with the appropriate fire codes and company safe work procedures and training further reduce the risks involved.

Fire water hoses and extinguishers are accessible throughout the complexes. Smoke and heat detectors offer an early warning system. A fire crew and rescue team are available to take action as well as a registered nurse or first aid attendant (minimum Level 1) and fully equipped infirmary. An emergency shelter is prepared and ready in the event of an accommodation fire.

The High Lake camp site is available to assist as required.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

SURFACE FIRE - ULU



ULU EMERGENCY PROCEDURES MANUAL

SURFACE FIRE EMERGENCY

In the event of a surface fire emergency the following procedures should be followed.

Project Manager:

1. Respond to the fire area to investigate reason for the alarm. (Project Manager will be accompanied by the Camp Manager)

If it is **NOT** a fire situation:

- a) Notify the control center to have crew stand-down
- b) Reset alarm panel
- c) Give 'all clear' to residents in accommodations

If it is **A REAL** fire situation:

- a) Notify the control center of the fire situation and request immediate back-up
 - b) Ensure immediate evacuation of all personnel from the fire area
 - c) Coordinate fire fighting activities
 - d) Communicate activities and requests for assistance to control center
 - e) After the fire is out - secure the area
 - f) Reset alarm panel
 - g) Give 'all clear' to residents in accommodations
2. Delegate someone to be responsible for accountability of every employee on site, with consultation of leadhands. Complete employee list is kept posted on board near telephone desk.

Camp Manager:

1. Designate person to fuel and deliver bus to door and wait to transport as required
2. Fuel pick-ups and prepare necessary equipment. Have drivers remain with vehicles and wait for instruction
3. If there are not enough surface crew members to fulfill tasks, the Project Manager to request help from other departments
4. If requested, have gensets prepared to go to airstrip for lights, etc.
5. Follow Camp Manager checklist

ULU EMERGENCY PROCEDURES MANUAL

Nurse/First Aid Attendant:

1. Follow Health Services checklist

General Population:

1. All employees are to evacuate the area of the fire zone and go to the designated safe area. In the event of accommodation fire, all employees are to go to the bus if available, if not, the core shack shelter will be the alternate safe area
2. Assist as required

ULU EMERGENCY PROCEDURES MANUAL

SURFACE/UNDERGROUND EMERGENCY CHECKLIST:

1. Record caller's name: _____
2. Caller's location _____
3. Nature of emergency _____
4. Location of emergency _____
5. Name of Injured/ill _____
6. Number of injured/ill _____
7. Types of injuries/illness _____
8. Time 1st call came in _____
9. Notify Nurse/First Aid Attendant and Project Manager immediately
10. If mobilization or evacuation is required, notify the Camp Manager to have equipment and vehicles readied

Instruct the caller to stay with the injured/ill until help arrives

If required instruct the caller that First Aid supplies are located at :

- U/G refuge station
- surface mobile shop
- powerhouse control room
- clinic
- office
- core shack

ULU EMERGENCY PROCEDURES MANUAL

SURFACE CREW CHECKLIST

Upon being notified by the Project Manager of an emergency situation, the following procedures will be followed:

1. The Camp Manager will designate a person to have the bus fueled and readied to transport persons as required
2. All pickups and necessary equipment will be fueled and will standby for further instructions
3. The surface crew will standby to deliver other supplies as required and to assist if needed
4. If requested, prepare emergency genset to be taken to the airstrip for lights etc.

ULU EMERGENCY PROCEDURES MANUAL

HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Inform Yellowknife Stanton Hospital @ 867-669-4111
of the situation (if required) _____
3. Prepare to go to site if required _____
4. If the number of casualties is greater than can be
accommodated in the infirmary, have Camp Manager
prepare beds or move mattresses to control area _____
5. Have necessary medical supplies moved to treatment
location _____
6. Request help from other departments as required _____
7. As patient arrive, designate 'first aiders' and helpers to
patient. If there are too many patients, key individuals
should be given responsibility for a wing of 'first aiders'
and patients _____
8. Assign responsible person to monitor the nursing station
phone. Instruct that person not to make outside calls
unless authorized by Nurse/First Aid Attendant _____
9. Arrange medivac if required _____

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All phones will be disconnected and brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

ULU EMERGENCY PROCEDURES MANUAL

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HIGH LAKE: (604) 759-0473

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EWAN DOWNIE, PRESIDENT

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ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE OPERATOR CHECKLIST:

1. Check with Camp Manager to verify the telephones have been put on Emergency mode
2. Monitor incoming telephone calls
 - direct calls for the Nursing/First Aid Station only if related the emergency
 - direct all other calls to the Project Manager if related to the emergency
3. Do NOT release any information to outside parties regarding the emergency
4. Record names, phone numbers and times of all incoming calls related to the emergency
5. Record the time the emergency telephone procedures were canceled (by the Project Manager only)

CALL RECORD SHEET: (Use back of sheet if more space is required)

[illegible]

ULU EMERGENCY PROCEDURES MANUAL

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse/First Aid Attendant - prepare to move mattresses and bedding as directed.
2. Prepare to have coffee, tea, juice and snacks to the control area
3. Post guard to prevent unnecessary people from entering the treatment area
4. Prepare meals as required
5. Assist as required

UNDERGROUND MEDICAL EMERGENCY

UNDERGROUND MEDICAL EMERGENCY

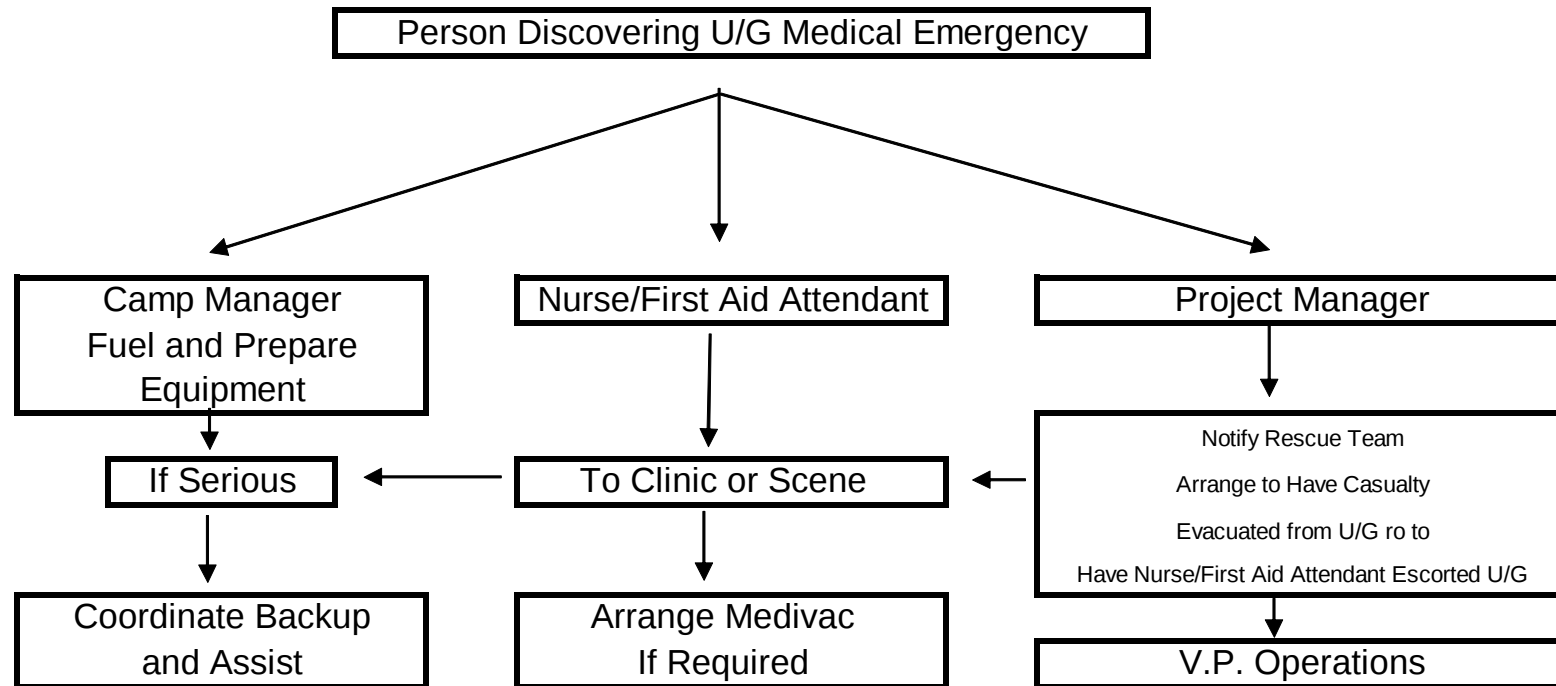
While the organization stresses compliance with the Mine Safety Act and company safe work procedures, potential for industrial accidents exist due to the nature of the environment and job responsibilities.

A registered nurse or first aid attendant (minimum Level 1) and fully equipped infirmary, as well as a rescue team, are available to support the treatment of persons.

The High Lake camp site, Yellowknife Hospital, and Medivac center are available to assist as required.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

UNDERGROUND MEDICAL EMERGENCY - ULU



ULU EMERGENCY PROCEDURES MANUAL

UNDERGROUND MEDICAL EMERGENCY

In the event of an underground medical emergency the following procedures will be followed.

Person Discovering U/G Medical Emergency

1. Inform the Project Manager
2. Inform the Nurse/First Aid Attendant
3. Inform the Camp Manager

Project Manager:

1. Designate Telephone Operator
2. Coordinate treatment and movement of people
3. Inform Nurse/First Aid Attendant and arrange to escort underground if required
4. Inform Camp Manager to fuel and prepare equipment
5. Assure site is secure for investigation

Camp Manager:

1. Designate person to fuel and deliver bus to door and wait to transport as required
2. Fuel pick-ups and prepare necessary equipment. Have drivers remain with vehicles and wait for instruction
3. If there are not enough surface crew members to fulfill tasks, then Project Manager to request help from other departments
4. Deliver other supplies as requested
5. If requested, have gensets prepared to go to airstrip for lights, etc.
6. Follow Camp Manager checklist.

Nurse/First Aid Attendant:

1. Follow Health Services checklist

ULU EMERGENCY PROCEDURES MANUAL

Telephone Operator:

1. Record information as per the Surface/Underground Medical Emergency sheets
2. Follow Emergency Telephone Block Procedures
3. Follow Telephone Operator checklist
4. Record pertinent information, sequence and timing of events

ULU EMERGENCY PROCEDURES MANUAL

SURFACE/UNDERGROUND EMERGENCY CHECKLIST:

1. Record caller's name: _____
2. Caller's location _____
3. Nature of emergency _____
4. Location of emergency _____
5. Name of Injured/ill _____
6. Number of injured/ill _____
7. Types of injuries/illness _____
8. Time 1st call came in _____
9. Notify Nurse/First Aid Attendant and Project Manager immediately
10. If mobilization or evacuation is required, notify the Camp Manager to have equipment and vehicles readied

Instruct the caller to stay with the injured/ill until help arrives

If required instruct the caller that First Aid supplies are located at :

- U/G refuge station
- surface mobile shop
- powerhouse control room
- clinic
- office
- core shack

ULU EMERGENCY PROCEDURES MANUAL

SURFACE CREW CHECKLIST

Upon being notified by the Project Manager of an emergency situation, the following procedures will be followed:

1. The Camp Manger will designate a person to have the bus fueled and readied to transport persons as required
2. All pickups and necessary equipment will be fueled and will standby for further instructions
3. The surface crew will standby to deliver other supplies as required and to assist if needed
4. If requested, prepare emergency genset to be taken to the airstrip for lights etc.

ULU EMERGENCY PROCEDURES MANUAL

HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Inform Yellowknife Stanton Hospital @ 867-669-4111
of the situation (if required) _____
3. Prepare to go to site if required _____
4. If the number of casualties is greater than can be
accommodated in the infirmary, have Camp Manager
prepare beds or move mattresses to control area _____
5. Have necessary medical supplies moved to treatment
location _____
6. Request help from other departments as required _____
7. As patient arrive, designate 'first aiders' and helpers to
patient. If there are too many patients, key individuals
should be given responsibility for a wing of 'first aiders'
and patients _____
8. Assign responsible person to monitor the nursing/first aid
station phone. Instruct that person not to make outside
calls unless authorized by Nurse/First Aid Attendant _____
9. Arrange medivac if required _____

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE OPERATOR CHECKLIST:

1. Check with Camp Manager to verify the telephones have been put on Emergency mode
2. Monitor incoming telephone calls
 - direct calls for the Nursing/First Aid Station only if related the emergency
 - direct all other calls to the Project Manager if related to the emergency
3. Do NOT release any information to outside parties regarding the emergency
4. Record names, phone numbers and times of all incoming calls related to the emergency
5. Record the time the emergency telephone procedures were canceled (by the Project Manager only)

CALL RECORD SHEET: (Use back of sheet if more space is required)

[illegible]

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All phones will be disconnected and brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY CONTACT LIST

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ULU EMERGENCY PROCEDURES MANUAL

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse/First Aid Attendant - prepare to move mattresses and bedding as directed.
2. Prepare to have coffee, tea, juice and snacks to the control area
3. Post guard to prevent unnecessary people from entering the treatment area
4. Prepare meals as required
5. Assist as required

UNDERGROUND FIRE STENCH GAS

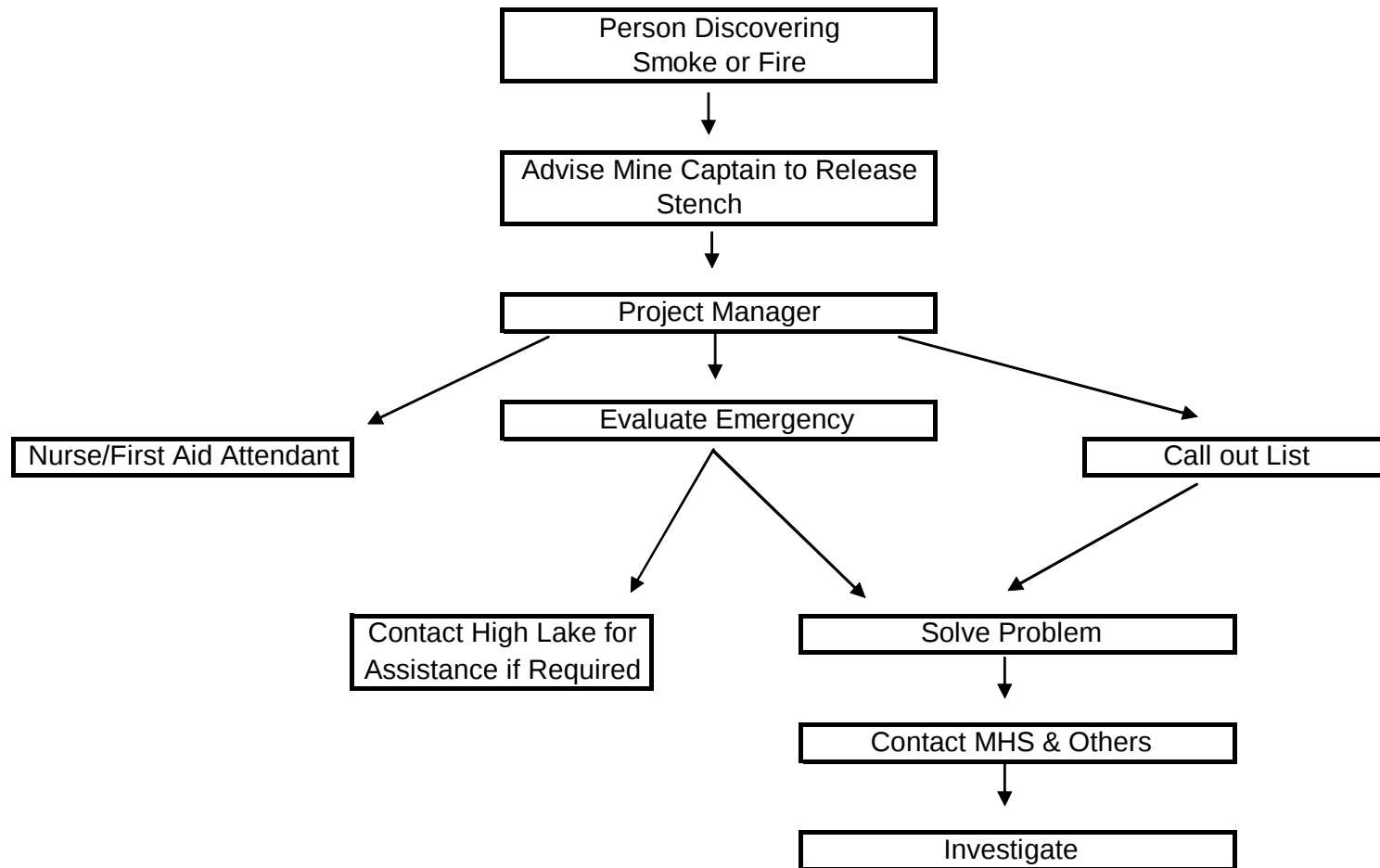
EMERGENCY STENCH GAS RELEASE

In the event of an emergency underground and/or surface which requires the notification of all persons underground, ULU is equipped with ethanethiol (stench gas) warning system.

This system can be released to underground via the compressed gas line and/or with canisters being released in front of the ventilation fan. Extra canisters are stored in the control area along with rescue equipment. A complete list of all rescue equipment is included in this section.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

UNDERGROUND EMERGENCY - STENCH GAS RELEASE - ULU



ULU EMERGENCY PROCEDURES MANUAL

UNDERGROUND EMERGENCY - STENCH GAS RELEASE

In the event underground stench has been released, the following procedures are to be followed.

Person discovering smoke or fire:

1. Advise that the stench gas must be released and then report to the control area if the person is on surface or to a refuge station if the person is underground

Mine Captain:

1. Contact the person requesting the stench gas release and verify all relevant information is recorded
2. Release stench or designate person to do so
3. Designate person to fuel and prepare equipment including underground jeeps
4. If there are not enough surface crew members to fulfill tasks, then Project Manager to request help from other departments
5. Report to control area
6. Inform the Project Manager
7. Inform the Nurse/First Aid Attendant
8. Inform the Camp Manager

Project Manager:

1. Designate a Telephone Operator
2. Evaluate emergency to determine nature of the problem
3. Designate person to complete 'head count' and check exhaust fans
4. Post guard at portal to ensure no one enters mine
5. Off duty Underground Supervisor to be brought in to provide technical help and assistance
6. Take appropriate actions
7. Have stench gas system recharged immediately
8. Have surface crew prepare airstrip for plane arrival if necessary

Camp Manager:

1. Program telephones for emergency service
2. Disconnect short wave radio and remove room extensions

ULU EMERGENCY PROCEDURES MANUAL

UNDERGROUND EMERGENCY - STENCH GAS RELEASE (con't)

3. Assist Nurse/First Aid Attendant as required
4. Follow Camp Manager checklist

Telephone Operator:

1. Radio call to have everyone to report to office control area for further instructions
2. Record information as per the Surface/Underground Emergency sheets
3. Follow Emergency Telephone Block Procedures
4. Follow Telephone Operator checklist

Nurse/First Aid Attendant:

1. Follow Health Services Checklist

Portal Guard:

1. Stop all persons from entering mine with the exception of a mine rescue team
2. Record names of anyone exiting the mine via the portal and report this information immediately to Project Manager via the radio
3. Advise Control Center if there are any unusual occurrences (i.e. smoke) coming from the portal
4. The guard must remain in place until released by the Control Center

Underground Personnel:

1. All employees to evacuate mine or head to nearest refuge station
2. Until contacted by Control Center, no one is to leave refuge station or re-enter mine

ULU EMERGENCY PROCEDURES MANUAL

STENCH GAS RELEASE INSTRUCTIONS:

In the event it is requested that stench gas is to be released, the following procedures will be followed:

- 1) The bottle is mounted on top of the compressed air beside the compressor located at the south end of the shop
- 2) Follow instructions as posted, they are as follows:
 - a) close top valve
 - b) open top valve
 - c) open bottom valveThe stench will be automatically dispersed through the air lines
- 3) If requested by the supervisor, take a bottle of stench from the shop office to the portal entrance - break bottle in front of the fan
- 4) Once the situation is secured, the mine must be ventilated prior to persons being allowed to return underground

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY/RESCUE EQUIPMENT:

In the event of an emergency on surface or underground, the following rescue equipment is available. It is located in the control area of the office.

Bio-Pak self contained breathing apparatus

Spare oxygen bottles

Carbon dioxide absorbent

Oxygen cascade system and supplies

Draeger SR45 self rescuers

Multi-gas detector

Flame safety lamp

Velometer

Draeger multi-gas pump and tubes

Stretcher

Splint kit

Oxygen therapy unit

Paramedic jump kit

ULU EMERGENCY PROCEDURES MANUAL

REFUGE STATION PROCEDURES

In the event of a stench gas release, all underground personnel are required to go into a refuge station. The following procedures will be followed.

1. A responsible person will take charge immediately (does not have to be the supervisor)
2. Determine if there is compressed air or not - then follow steps as required

WHEN COMPRESSED AIR IS AVAILABLE:

1. Close the refuge station door once everyone is in
2. Open the compressed air line valve (there may be the smell of stench gas for awhile, it will clear up)
3. Open the exhaust pipe in the wall
4. DO NOT seal doors
5. Have sealing material ready
6. Phone in the names of those in the refuge station (from the Refuge Station Checklist)
7. Keep a check on the ambient air pressure inside the refuge station (it must be kept positive). Detect this by holding a thread or piece of paper at the exhaust pipe (the thread or piece of paper should move towards the exhaust pipe) or by reading the water gauge
8. Conserve cap lamps
9. NO SMOKING any time during an Emergency Stench Warning
10. Remain in the station until you receive official instructions from the control center that is safe to do so

ULU EMERGENCY PROCEDURES MANUAL

REFUGE STATION PROCEDURES (con't)

WHEN COMPRESSED IS NOT AVAILABLE:

1. Close the refuge station door once everyone is in
2. If air outside is contaminated, quickly close off ALL openings
3. Delegate two people to prepare the sealing material
4. When the expected number of people is in the refuge station, seal the door using the sealing material
5. Phone in the names of those in the refuge station (from the Refuge Station checklist)
6. Check sealed openings for possible leaks
7. Conserve oxygen by keeping quiet
8. Mix the air by having one person walk around every 15 minutes
9. Keep off the floor. Exhaled air containing CO₂ is heavier than normal air and settles to the floor
10. Conserve cap lamp batteries
11. Remain in the refuge station until you receive official instruction that it is safe to leave
12. NO SMOKING at any time during an Emergency Stench Warning
13. The refuge station is equipped with an oxygen candle and carbon dioxide filter masks.

This equipment is to only be used when:

- a) tests show a depletion of breathable oxygen from extended occupation of a refuge station

OR

- b) the breathing air in the refuge station is adversely affected by outside contaminants

ULU EMERGENCY PROCEDURES MANUAL

REFUGE STATION CHECKLIST:

In the event of evacuation to a refuge station, the following procedures should be followed:

1. The first person to arrive at refuge station or person elected thereafter shall record the following information:
 - a) each person's name
 - b) time each person arrived in the refuge station
 - c) each person's supervisor
2. Contact should be made with the control center as soon as possible

#	Name	Time	Supervisor
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
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16			
17			
18			
19			
20			

ULU EMERGENCY PROCEDURES MANUAL

SURFACE/UNDERGROUND EMERGENCY CHECKLIST:

1. Record caller's name: _____
2. Caller's location _____
3. Nature of emergency _____
4. Location of emergency _____
5. Name of Injured/ill _____
6. Number of injured/ill _____
7. Types of injuries/illness _____
8. Time 1st call came in _____
9. Notify Nurse/First Aid Attendant and Project Manager immediately
10. If mobilization or evacuation is required, notify the Camp Manager to have equipment and vehicles readied

Instruct the caller to stay with the injured/ill until help arrives

If required instruct the caller that First Aid supplies are located at :

- U/G refuge station
- surface mobile shop
- powerhouse control room
- clinic
- office
- core shack

ULU EMERGENCY PROCEDURES MANUAL

PORTAL GUARD CHECKLIST:

If requested to act as a portal guard, the following procedures will be followed:

1. Request a radio from the surface coordinator if your vehicle is not equipped with one
2. Position vehicle in front of portal
3. Stop all persons from entering the mine with the exception of the mine rescue team
4. Record, on the back of this form, the names of anyone exiting the mine via the portal. As well, notify the Project Manager immediately on the radio.
5. Advise the control centre of any unusual occurrences (i.e. smoke) coming from the portal
6. The guard must remain in place until released by the control centre.

ULU EMERGENCY PROCEDURES MANUAL

SURFACE CREW CHECKLIST

Upon being notified by the Project Manager of an emergency situation, the following procedures will be followed:

1. The Camp Manager will designate a person to have the bus fueled and readied to transport persons as required
2. All pickups and necessary equipment will be fueled and will standby for further instructions
3. The surface crew will standby to deliver other supplies as required and to assist if needed
4. If requested, prepare emergency genset to be taken to the airstrip for lights etc.

ULU EMERGENCY PROCEDURES MANUAL

HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Inform Yellowknife Stanton Hospital @ 867-669-4111
of the situation (if required) _____
3. Prepare to go to site if required _____
4. If the number of casualties is greater than can be
accommodated in the infirmary, have Camp Manager
prepare beds or move mattresses to control area _____
5. Have necessary medical supplies moved to treatment
location _____
6. Request help from other departments as required _____
7. As patient arrive, designate 'first aiders' and helpers to
patient. If there are too many patients, key individuals
should be given responsibility for a wing of 'first aiders'
and patients _____
8. Assign responsible person to monitor the nursing station
phone. Instruct that person not to make outside calls
unless authorized by Nurse/First Aid Attendant _____
9. Arrange medivac if required _____

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE OPERATOR CHECKLIST:

1. Check with Camp Manager to verify the telephones have been put on Emergency mode
2. Monitor incoming telephone calls
 - direct calls for the Nursing/First Aid Station only if related the emergency
 - direct all other calls to the Project Manager if related to the emergency
3. Do NOT release any information to outside parties regarding the emergency
4. Record names, phone numbers and times of all incoming calls related to the emergency
5. Record the time the emergency telephone procedures were canceled (by the Project Manager only)

CALL RECORD SHEET: (Use back of sheet if more space is required)

Time:	Caller:	Phone #:	Message:	Relayed to:

ULU EMERGENCY PROCEDURES MANUAL

TELEPHONE BLOCK PROCEDURE:

Upon being notified by the Project Manager or designate to block the telephones, the following procedures will be followed:

1. All phones will be disconnected and be brought to the control area
2. Disconnect the short wave radio
3. Standby to assist as required
4. Do NOT remove the Emergency Block from telephones unless directed by the Project Manager or his designate

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY CONTACT LIST

ULU –

PROJECT MANAGER

DAVID STEVENSON
ULU: (604) 759-0605
TBAY OFFICE: (807) 346-2762
HOME: (705) 267-5757
CELL: (807) 472-0908

BUILDING & MAINTENANCE
SUPERVISORS

WAYNE KIRKHAM or
KIRK KELLER
ULU: (604) 759-0602

NURSE/FIRST AID ATTENDANT

ULU: (604) 759-0604

HIGH LAKE –

PROJECT MANAGER

IAN NEILL
HIGH LAKE: (604) 759-0473

WOLFDEN RESOURCES INC. –

EWAN DOWNIE, PRESIDENT

OFFICE: (807) 346-1668
CELL: (807) 473-6723

ULU EMERGENCY PROCEDURES MANUAL

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse/First Aid Attendant - prepare to move mattresses and bedding as directed.
2. Prepare to have coffee, tea, juice and snacks to the control area
3. Post guard to prevent unnecessary people from entering the treatment area
4. Prepare meals as required
5. Assist as required

POWER FAILURE

POWER FAILURE

In the event of a power failure, the primary hazard is loss of heat due to extreme temperatures.

An emergency generator will automatically become operational. An alternate shelter location is accessible if the power failure was for an extended duration.

The High Lake camp site is available to assist as required.

Organization and responsibilities are outlined in this section as well as notification and reporting procedures.

ULU EMERGENCY PROCEDURES MANUAL

POWER OUTAGE CHECKLIST:

In the event of a surface power outage, the following procedures will be followed:

1. Electrical crew will be sent to determine nature of problem with the primary generating units
2. The emergency generator will become operational
3. Repairs will be made as required - if possible
4. Heating and communication systems in the main camp area will be maintained by the emergency generator. All non-essential equipment **must** be turned off (washer, dryer, etc.)
5. If the power outage is of extended duration, all underground mining operations will be suspended and all personnel will be brought to main camp site until power can be restored to all areas

In the event of primary and emergency generator failure:

1. All personnel will assemble as directed, in the bus or alternate shelter location, if sub zero temperatures exist - this can accommodate all personnel and has an adequate heating system
2. A short wave radio is available on site, if there is a complete shutdown of the communication system. Care must be taken to ensure the radio battery is kept above freezing temperatures
3. Extra food and blankets will be supplied by the Camp Manager

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY SHELTER SUPPLIES

16	arctic sleeping bags
16	wool blankets
10gals	fresh water (changed monthly)
2box	tea bags (250 per box)
20L	apple juice
20L	orange juice
1 case	Bordens condensed milk
1 case	evaporated milk
1 case	bakers chocolate (sweet or semisweet)
1 case	p/c sugar
2 case	p/c beef stew
2 case	p/c weiners and beans
2 case	p/c chili con carne
5 kg	chicken soup base
5 kg	beet soup base
1 case	plastic soup
1 case	styrofoam cups and lids

COMMUNICATIONS BLACKOUT

COMMUNICATIONS BLACKOUT

In the event of a communications blackout, the primary hazard is isolation.

Communication sources on site are satellite phones, vehicle, aviation and short wave radios. These are kept in separate locations in the building - control room and radio room.

Contact would be made with the High Lake camp site or through northern communities to advise them of the situation and assist as required.

ULU EMERGENCY PROCEDURES MANUAL

COMMUNICATIONS BLACKOUT

In the event of a communications blackout, the following procedures will be followed:

1. Attempt contact with High Lake on vehicle radios to advise them of the situation. Vehicles must be taken to high ground
2. If all attempts to communicate with the outside world fails and this situation continues for more than 2 hours, all work should stop until some form of communication is established

SEVERE WEATHER CONDITIONS

SEVERE WEATHER

Weather conditions are unpredictable and can be extremely hazardous with the risk of exposure to extreme temperatures and isolation. There is a potential of being snowbound, frostbite and hypothermia. These conditions can come on quickly and be severe.

All surface vehicles are equipped with survival gear and radios. As well, all passengers are required to have appropriate cold weather clothing. Radio checks are performed on a regular basis to confirm location and status.

Contact with High Lake camp site would be made to assist if an emergency should occur.

Procedures and responsibilities are outlined in this section.

ULU EMERGENCY PROCEDURES MANUAL

SEVERE WEATHER CONDITIONS:

In the event of **severe weather conditions**, the following guidelines will be followed:

1. Make sure that vehicles are completely fueled and equipped with an emergency survival kit before traveling anywhere
2. Make sure that the radio is working
3. Obtain a weather forecast before traveling around camp or onto winter roads
4. Advise the radio operator when you are going to be traveling, the time you leave camp and your destination and expected time of arrival
5. Cover air breather on equipment with burlap to stop snow and ice buildup. Carry extra filters if possible
6. There will be periodic calls from camps to operators working. A written log will be kept with the time of contact and the location of work. It is extremely important to answer when called.
7. Be aware of limited daylight conditions and animal dangers
8. If caught in a white-out condition where travel is not possible - DON'T MOVE- travel may be easier when darker
9. Know the danger signs of hypothermia and frostbite - WATCH EACH OTHER FOR SIGNS!!!

In the event of a **total white-out condition**, the following guidelines will be followed:

1. All underground persons will be brought to surface
2. All persons will report to accommodations and there will be NO travel allowed

ULU EMERGENCY PROCEDURES MANUAL

SEVERE WEATHER CONDITIONS (con't):

EMERGENCY SURVIVAL KITS:

Emergency survival kits are available for each piece of equipment. They include the following items and must be immediately restocked if utilized.

- blanket / sleeping bag
- candles
- shovel
- mirror or other reflective device
- rope
- tarp or reflective blanket for shelter
- food (freeze dried)
- 1st aid kit
- whistle
- container or cup for melting snow
- flashlight

ULU EMERGENCY PROCEDURES MANUAL

SEVERE WEATHER CONDITIONS (con't):

Hypothermia -

MILD

severe shivering

slurred speech

conscious but withdrawn

whitish look to skin

MODERATE

violent shivering

slow breathing

clumsy

white waxy look to skin

confused

irrational

SEVERE

no shivering

slow or absent shivering

unconscious

What to do: - gently move person to warmer area - out of wind

remove wet clothing - keep dry

warm gently -wrap in blankets or use your body heat to warm

cover head

give conscious casualty sweet warm liquids - not coffee or alcohol

do not let the person smoke

ULU EMERGENCY PROCEDURES MANUAL

SEVERE WEATHER CONDITIONS (con't):

Frostbite:

MILD

-white skin that is painless

MODERATE

-white, waxy skin

-pain in early stages followed by numbness

-skin is firm to touch but tissues are soft

SEVERE

-white, waxy skin that may turn blue as progressing

-lack of feeling in affected area

-skin feels cold & hard

What to do:

for MILD to MODERATE frostbite:

- prevent further heat loss
- rewarm part gradually - use body to body contact - DO NOT use direct heat
- do NOT rub frostbitten area

for SEVERE frostbite:

- treat frozen part gently to prevent further tissue damage
- prevent further heat loss
- do NOT rub limbs - do not allow casualty to move unnecessarily
- do NOT thaw unless
 - medical help is unavailable
 - the casualty is in a warm environment
 - there is no danger of refreezing

- obtain medical help as soon as possible
- transport by stretcher if lower limbs affected

WILDLIFE INCIDENTS

WILDLIFE INCIDENTS

Many different types of animals are indigenous to this area. The potential with encounters with wildlife exist. A person must be alert in their surroundings and caution must be used. Radio checks are performed on a regular basis to confirm location and status of individuals working on surface.

Persons are not advised to feed the animals and to ensure the garbage is removed and contained. If by chance one is to come upon an animal, they are not to confront but rather give the animal an escape route.

If an animal becomes a safety concern within the campsite and immediate surrounding area, contact should be made with the Kugluktuk Hunters and Trappers Association and Nunavut Sustainable Resources to advise them of the situation.

The situation will be monitored and appropriate measures will be taken.

Procedures are outlined in this section.

ULU EMERGENCY PROCEDURES MANUAL

WILDLIFE INCIDENTS:

To prevent wildlife from being attracted to the camp site the following precautions are extremely important.

1. Do NOT under any circumstances feed the animals. It may appear that you are only feeding a rabbit or fox for example but this also attracts other undesirable animals
2. Remove all garbage from where you are working and ensure that it is contained. All garbage is burnt on a regular basis.
3. Do NOT confront any animal or get too close. Always allow room for the animal to have an escape route

If animals begin to present a problem, the following steps should be taken:

1. Contact the Nunavut Sustainable Resources @ 867-982-7240. Advise them of the situation, they will advise what course should be taken.
2. Contact the Kugluktuk Hunters and Trappers Association @ 867-982-4908 and provide them with pertinent information. If the situation requires, they will be able to assist in the relocation of the animal or provide traps.

Our agreement with the Kitikmeot Inuit Association allows us to destroy animals which have become a danger to the camp. We may be required to provide compensation. An Inuit employee may be directed to use the company rifle.

Contact the Kugluktuk Hunters and Trappers Association and provide them with pertinent information and ask about disposal of the pelt. Nunavut Sustainable Resources should be contacted as well and provided the same information as the KHTA.

WINTER ROAD & TEMPORARY CAMPS

WINTER ROAD & TEMPORARY CAMPS

Due to the remoteness of the Ulu project, travel may be required on the winter roads. Maintenance support and accommodations are provided in temporary camps situated at key locations along the way.

All vehicles traveling and working on the roads must comply with stringent safety rules and procedures.

Radio can be made with the camps along the road. As well, High Lake and Ulu are available in the event of an emergency or incident.

ULU EMERGENCY PROCEDURES MANUAL

WINTER ROAD & TEMPORARY CAMPS

In the event of an emergency in the temporary camps or on the winter road, the following procedures will be followed.

MEDICAL EMERGENCY:

- Stabilize the injured person
- Notify High Lake or Ulu of the situation
- Treat or transport as required
- First Aid kits are available in vehicles and at the camps

FIRE EMERGENCY:

- Radio call for backup
- If small fire – use extinguisher to put out
- If large fire – have crew respond and fight fire
- Notify High Lake or Ulu of situation
- Evacuate to vehicles if accommodation fire – follow emergency evacuation plan for each camp.

POWER OUTAGE:

- Contact High Lake or Ulu via the vehicle radios to advise them of the situation.
- Use vehicles for heat if sub-zero temperatures.

COMMUNICATION OUTAGE:

- Use the vehicle radios to contact the nearest site to advise them of the situation.

VEHICLE INCIDENTS:

- Radio the nearest camp or vehicles and advise if emergency response is required.

WILDLIFE:

- All sightings and encounters with wildlife must be logged.
- Persons must NOT feed the animals and must ensure that garbage is removed, contained, and disposed of where it will be burnt regularly.
- If wildlife becomes a problem around the camps, advise High Lake or Ulu so steps can be taken to rectify.

ULU EMERGENCY PROCEDURES MANUAL

WINTER ROAD & TEMPORARY CAMPS (cont'd)

PETROLEUM / CHEMICAL SPILLS:

- Use the Winter Road Contingency Plan for clean up and containment
- Advise High Lake or Ulu immediately so appropriate reporting procedures can be followed.

TRAVELLING & WHITE-OUTS:

- All persons traveling on the roads must ensure that their vehicles are completely fueled, that they have proper clothing and are equipped with a survival kit and that the radio is functioning properly.
- The radio operators must be notified of the time of departure and expected arrival time at their destination. Radio checks will be done routinely to confirm location and status.
- No travel will be allowed in the event of a white-out. If a person is caught out on the road, they are advised to stop and wait until darkness or until the weather clears.

MEDIVAC PROCEDURES

MEDIVAC PROCEDURES

Initial medical treatment will be provided by the on-site nurse/first aid attendant.

In the event of a serious injury that requires further medical treatment, medivac services are available through the referral unit in Yellowknife.

If the nature of the injury is such that the patient does not require a nurse/first aid attendant escort, an available aircraft in the area will be contacted to provide transportation to Yellowknife.

Procedures and responsibilities are outlined in this section.

ULU EMERGENCY PROCEDURES MANUAL

MEDIVAC PROCEDURE:

HEALTH SERVICES:

1. Stabilize injured/ill person
2. Notify the Project Manager
3. Provide direction and supervision for assistants
4. Notify Stanton Regional Hospital at (867) 669-4111 Yellowknife

When receiving report of injury/illness:

1. Fill out Surface/Underground Emergency checklist
2. Advise caller to stay with injured person until help arrives

Referral procedure:

1. Contact Stanton Regional Hospital, Patient Referral Unit at (867) 669-4115 to arrange for a plane
2. Inform Referral Personnel that transportation is required. Give the name of the person requesting the Medivac and receiving doctor at Stanton Hospital. Provide the following information: (included on emergency information sheet)
 - Client's name, birthdate, health care number
 - The medical problem and treatment initiated
 - Advise if stretcher or ambulatory
 - Equipment that will be required ie: IV, O₂
3. Arrange for Camp Manager at Ulu to meet plane
4. Arrange for a cash advance if necessary, through the Project Manager
Cash advance policy is \$300.00 available for patient.
5. Contact (if required) to make further flight arrangements to Edmonton:

First Air	1-800-267-1247 or 867-669-6618
Canadian North	1-800-665-1177 or 867-873-4484

Assistants:

1. Assist with the patients as requested and directed
2. Meet the plane and escort to Health Services or site of injury
3. Assist with transportation as directed

ULU EMERGENCY PROCEDURES MANUAL

EMERGENCY INFORMATION SHEET:

DATE & TIME: _____

PATIENT NAME: _____

ADDRESS & PHONE #: _____

EMERGENCY NOTIFICATION: _____

BIRTHDATE: _____

HEALTH CARE NUMBER: _____

SOCIAL INSURANCE NUMBER: _____

ILLNESS / INJURY:

TREATMENT:

MEDICAL HISTORY:

REFERRAL:

INVESTIGATION REPORTS

ULU EMERGENCY PROCEDURES MANUAL

INVESTIGATION REPORTS:

In the event of an accident or mishap, the following forms will be completed:

1. Investigation report
2. WCB report - if required
3. Appropriate checklists for each responsibility

WOLFDEN RESOURCES INC. - ULU OPERATION Investigation Report		Company file number _____	
Revised 16-Feb-04		Department _____	Number _____

M I S H A P	Type of mishap. <i>(multiple selections possible)</i>		
	INJURY ☐ First Aid ☐ Medical Aid ☐ Lost Time ☐ Fatal	PROPERTY DAMAGE/LOSS TO PROCESS ☐ Equipment/property damage ☐ Fire ☐ Loss to process ☐ Environment	INCIDENT (near miss) POTENTIAL LOSS ☐ Injury ☐ Equipment/property damage ☐ Loss to process ☐ Environment
	Name: _____		Describe loss _____
	Describe Injury: _____		Estimated cost _____ Actual cost _____
	Location of mishap. <i>(be specific)</i> _____ _____ _____		Date of mishap: _____ Time: _____ ☐ am ☐ pm Date reported: _____ Time: _____ ☐ am ☐ pm mm/dd/yy

D E S C R I P T I O N	Describe how the mishap occurred. Include what the person(s) was doing or trying to do, and anything unusual. _____ _____ _____ _____ _____ _____ _____ _____ _____		
	Is there a written job procedure for the job being done? ☐ Yes ☐ No ☐ NA		
	Identify the equipment or material involved. <i>(make and model, size, weight, shape)</i> _____ _____		
	List the names of any witnesses. _____ _____		

L O S S P O T E N T I A L	POTENTIAL SEVERITY: Circle the one letter which bests identifies the potential loss if the hazards are not eliminated or controlled.				
	PROBABILITY OF RECURRENCE: How often will this happen if actions are not taken to prevent a recurrence?				
	Probability of Recurrence	Death, permanent total disability or property damage > \$100,000	Lost time injury or property damage > \$10,000 but < \$100,000	Medical aid injury or property damage > \$1,000 but < \$10,000	First aid injury or property damage < \$1,000
	Frequent	A	D	G	J
	Occasional	B	E	H	K
Rare	C	F	I	L	

E N V I R O N M E N T A L	If the Potential Severity is rated at a "K" or "L" then only this first page must be completed. Otherwise, complete all four pages of the investigation form. The supervisor is to sign and distribute this page for signatures if this is only a one page investigation.		
	Signatures and dates:		
	Supervisor: _____ / / mm dd yy	Worker: _____ / / mm dd yy	Dept Head: _____ / / mm dd yy
	Loss Control: _____ / / mm dd yy	Gen. Mgr.: _____ / / mm dd yy	Routing: Supervisor > 2nd line supervisor > Dept Head > LC > General Manager

R E M E D I A L A C T I O N S	What temporary actions have been taken to remove the hazard and prevent a similar occurrence?			
	Cause codes	Actions taken	By whom	Date
S K E T C H	What permanent action is recommended to address the basic causes of this mishap and to prevent or control a similar occurrence?			
	Cause codes	Recommendations	By whom	Date
Use this space for a sketch, diagram or additional notes.				

P E R S O N A L	Name		Hire date		Age		Job title at time of mishap																					
	Occupation at time of mishap:						☐ Regular		☐ Relief		☐ Temporary																	
	Experience in occupation:																											
	☐ 0-6 mo.				☐ 7-12 mo.				☐ 1-2 yr.				☐ 3-5 yr.				☐ 6-10 yr				☐ 11-15yr.				☐ >15 yr.			
	What training has been given in the safe performance of the work. <i>(more than one may apply)</i>																											
	☐ No training ☐ Apprenticeship ☐ Lupin trainer/operator ☐ WHMIS/TDG ☐ Other Lupin training <i>(Specify)</i> _____ ☐ Ontario common core training ☐ Other <i>(Specify)</i> _____ ☐ Not applicable																											
	Shift information:				Shift type				How many complete shifts have been worked since the last 24 hour break?																			
	☐ am ☐ pm ☐ am ☐ pm				☐ steady ☐ rotating ☐ overtime shift ☐ overtime hours				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28																			
	Number of persons requiring offsite medical attention as a result of this mishap: _____																											
	Has the worker had a similar disability? ☐ Yes ☐ No Has modified work been assigned? ☐ Yes ☐ No																											
Investigation team members:														Date of investigation:														
Worker's comments and signature: _____																												
Signature: _____ Date: _____																												
OHSC comments and signatures _____																												
Signature: _____ Date: _____																												
Other comments and signatures _____																												
Signature: _____																												
Supervisor's comments and signatures _____																												
Signature: _____ Date: _____																												
2nd line supervisor's comments and signature: _____																												
Signature: _____ Date: _____																												
Department manager's comments and signature _____																												
Signature: _____ Date: _____																												
Loss Control department's comments and signature _____																												
Signature: _____ Date: _____																												
General Manager's comments and signature: _____																												
Signature: _____ Date: _____																												