

EMERGENCY STENCH GAS RELEASE

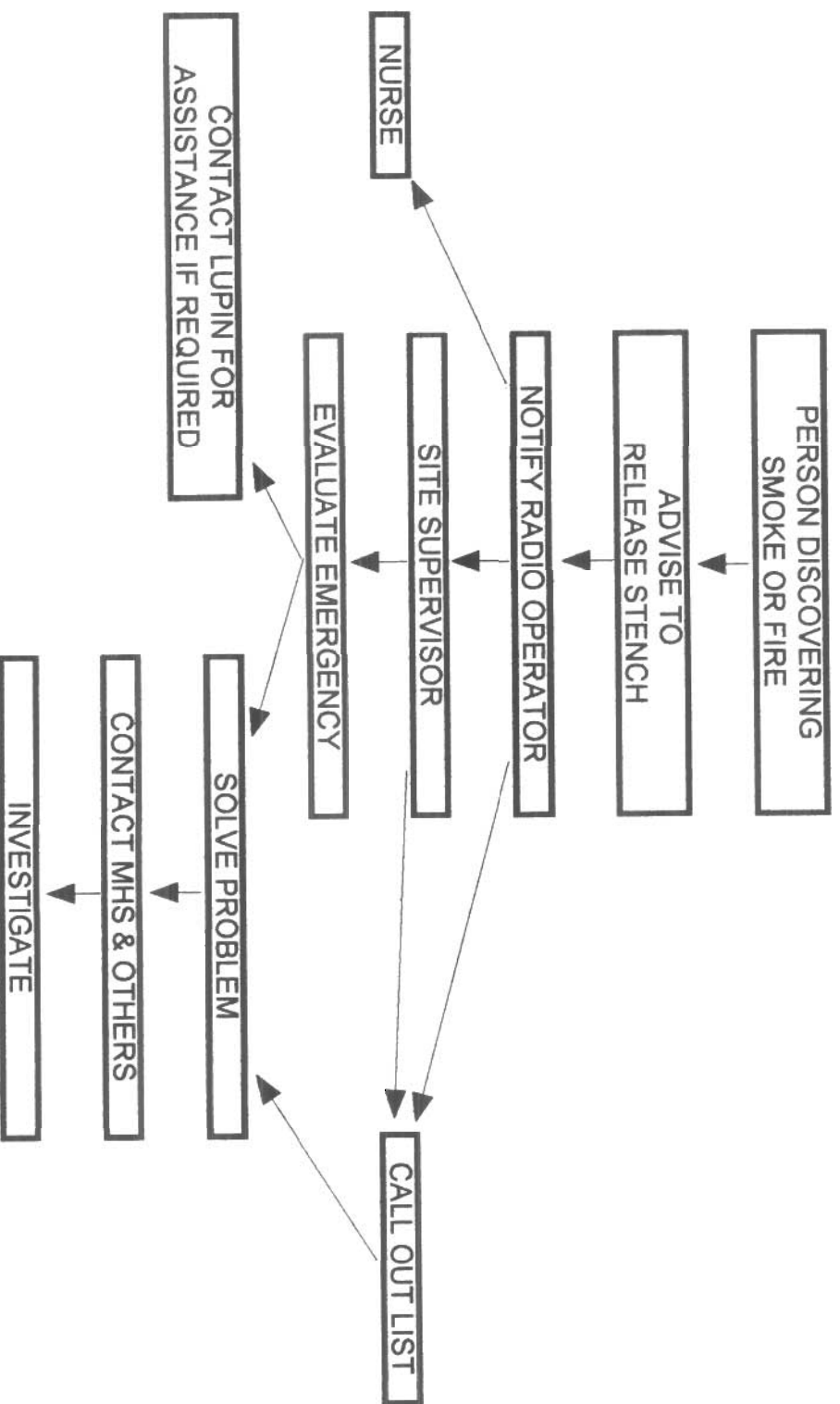
In the event of an emergency underground and/or surface which requires the notification of all persons underground, ULU is equipped with ethanethiol (stench gas) warning system.

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.

Additional assistance will be obtained from Lupin minesite if required.

UNDERGROUND EMERGENCY - STENCH GAS RELEASE - ULU



EMERGENCY PROCEDURES - ULU

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

Surface Supervisor:

1. Release stench or designate person to do so
2. Designate person to fuel and prepare equipment including underground jeeps
3. If there are not enough surface crew members to fulfill tasks, then Site Supervisor to request help from other departments
4. Report to control area
5. Assist as required

Radio Operator:

1. Inform Site Supervisor
2. Inform the Nurse
3. Radio call to have everyone to report to office control area for further instructions
4. Record information from caller as per the Surface/Underground Emergency sheets

Site Supervisor:

1. Contact the person requesting the stench gas release and verify all relevant information is recorded
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. Inform General Manager and Ulu Project Manager
8. Contact Lupin if assistance is required
9. Have stench gas system recharged immediately

UNDERGROUND EMERGENCY - STENCH GAS RELEASE (con't)

Nurse:

1. As per 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 Site Supervisor 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 reenter mine

Elect./Systems:

1. Programs telephones for emergency service
2. Disconnect short wave radio and remove room extensions
3. Assist Nurse as required

Camp Manager:

1. As per Camp Manager checklist

EMERGENCY PROCEDURES - ULU

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 valve

The 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

EMERGENCY PROCEDURES - ULU

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

Stretcher

Splint kit

Oxygen therapy unit

Paramedic jump kit

EMERGENCY PROCEDURES - ULU

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

EMERGENCY PROCEDURES - ULU

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) when tests show a depletion of breathable oxygen from extended occupation of a refuge station
 - OR**
 - b) when the breathing air in the refuge station is adversely affected by outside contaminants

EMERGENCY PROCEDURES - ULU

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 and Site Supervisor immediately
10. If mobilization or evacuation is required, notify the Surface Supervisor to have equipment and vehicles readied

INSTRUCT THE CALLER TO STAY WITH THE INJURED/ILL UNTIL HELP ARRIVES

EMERGENCY PROCEDURES - ULU

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 Site Supervisor immediately on the radio
5. Advise the control center of any unusual occurrences (i.e. smoke) coming from the portal
6. The guard must remain in place until released by the control center

EMERGENCY PROCEDURES - ULU

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			
14			
15			
16			
17			
18			
19			
20			

EMERGENCY PROCEDURES - ULU

SURFACE CREW CHECKLIST

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

1. The Surface Supervisor 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.

EMERGENCY PROCEDURES - ULU

HEALTH SERVICES CHECKLIST:

1. Report to Health Services Office _____
2. Inform Yellowknife Stanton Hospital @ 403-920-4111
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 _____
9. Arrange medivac if required _____

EMERGENCY PROCEDURES - ULU

SWITCHBOARD OPERATOR CHECKLIST:

1. Check with Elect./Systems to verify the telephones have been put on Emergency mode
2. Monitor incoming telephone calls
 - direct calls for the Nursing Station only if related the emergency
 - direct all other calls to the Site Supervisor 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 switchboard procedures were canceled (by the Site Supervisor only)

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

EMERGENCY PROCEDURES - ULU

TELEPHONE BLOCK PROCEDURE CHECKLIST:

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

1. All phone extensions from rooms (as per list) and the telephone booth will be disconnected with the telephones being brought to the control area
2. Disconnect the short wave radio
3. If directed, remove lines 2 and 3 (at the control box) so there are no incoming/outgoing lines. Leaving line 1 will allow calls to and from Lupin only
4. Standby to assist as required
5. Do NOT remove the Emergency Block from telephones unless directed by the Site Supervisor or his designate

ULU PHONE EXTENSIONS

- 21 MAIN DESK**
- 23 SITE SUPERVISOR DESK**
- 25 PHONE BOOTH**
- 26 1ST AID ROOM**
- 27 CAMP SUPERVISOR'S ROOM**
- 28 KITCHEN**
- 29 SITE SUPERVISOR'S ROOM**
- 30 NURSE'S ROOM**
- 31 MAINTENANCE DESK**
- 36 MINE/UNDERGROUND**

EMERGENCY PROCEDURES - ULU

CAMP MANAGER CHECKLIST

1. Contact control center to find out the number of persons injured/ill. In consultation with the Nurse - 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