Scope:

Being prepared for a mine site emergency is critical in order to effectively respond and control any unexpected occurrence.

Emergencies may be site specific where onsite emergency response team personnel can effectively respond to the situation or the incident may involve the use of outside personnel and other resources necessary to coordinate effective response.

The following plan has been designed and developed for Mount Polley to coordinate and effectively respond to any and all mine emergencies.

Goals:

- To ensure and maintain a high standard of emergency response training for mine personnel.
- To identify and ensure adequate resources are available on site and off site in order to facilitate effective emergency response.
- To introduce and train management in the roles of the” Control Group”
- To introduce and train all workers in the relevance of the Mine Emergency Response Plan.
INTRODUCTION & OVERVIEW

Why have a Mine Emergency Response Plan?

A definitive plan to deal with all types emergencies is important and essential as a part of the mining plan as is mandated by the Health, Safety & Reclamation Code for Mines in British Columbia.

Besides the major benefit of providing guidance during an emergency, developing the plan has other advantages. Unrecognized hazardous conditions that would aggravate an emergency situation may be uncovered, allowing them to be eliminated. The planning process may bring to light deficiencies, such as the lack of resources (equipment, trained personnel, supplies), items that can be rectified before an emergency occurs. In addition an emergency plan promotes safety awareness and shows the organization's commitment to the safety of workers and other parties who may be affected by an eventuality.

The lack of an emergency plan could lead to severe losses such as multiple casualties and possible financial collapse of the organization.

Since emergencies will occur, preplanning is necessary to prevent possible disaster. An urgent need for rapid decisions, shortage of time, and lack of resources and trained personnel can lead to chaos during an emergency.

Time and circumstances in an emergency mean that normal channels of authority and communication cannot be relied upon to function routinely. The stress of the situation can lead to poor judgement resulting in severe losses.

2. What is the overall objective of this plan?

This emergency plan specifies procedures for handling sudden unexpected situations. The objective is to reduce the possible consequences of the emergency by:

- Preventing fatalities and injuries;
- Reducing damage to and protecting company property, inclusive of all machinery and equipment
- Preventing and/or reducing damage to the environment
- Accelerating the resumption of normal operations.
Development of the plan begins with a risk assessment. Which will describe:
- How likely a situation is to occur
- What means are available to stop or prevent the situation and
- What is necessary for a given situation?

From this analysis, appropriate emergency procedures can be established.

3. What is a risk assessment?

Although emergencies by definition are sudden events, some occurrences can be predicted with some degree of certainty. The first step is to find which hazards pose a threat to Mount Polley’s mining operation.

When a list of hazards is made, records of past incidents and occupational experience are not the only sources of valuable information. Since major emergencies are rare events, knowledge of both technological (chemical or physical) and natural hazards can be broadened by consulting with fire departments, insurance companies, engineering consultants, government departments and other mining companies.

4. What are technological and natural hazards?

Areas where flammables, explosives, or chemicals are used or stored should be considered as the most likely place for a technological hazard emergency to occur. Examples of these hazards are:
- Fire
- Explosion
- Building collapse
- Major structural failure
- Spills of flammable liquids
- Accidental release of toxic substances
- Deliberate release of hazardous biological agents, or toxic chemicals
- Other terrorist activities
- Accidental release of tailings
- Loss of electrical power
- Loss of water supply
- Loss of communications

The risk from natural hazards is not the same across Canada but the list would include:
- Floods,
- Earthquakes,
- Tornados,
Other severe wind storms,
Snow or ice storms,
Severe extremes in temperature (cold or hot), and
Pandemic diseases like influenza.

The possibility of one event triggering others must be considered. An explosion may start a fire and cause structural failure while an earthquake might initiate all the events noted in the list of chemical and physical hazards.

5. What are the series of events or decisions that should be considered?

Having identified the hazards, the possible major impacts of each are itemized, as:

- Sequential events (for example, fire after explosion)
- Evacuation
- Casualties
- Damage to plant infrastructure
- Loss of vital records/documents
- Damage to equipment
- Disruption of work

Based on these events, the required actions are determined. For example:

- Declare emergency
- Sound the alert
- Evacuate danger zone
- Isolate source, if possible
- Call for external aid, if needed
- Initiate rescue operations
- Attend to casualties
- Fight fire

The final consideration is a list and the location of resources as needed:

- Medical supplies
- Auxiliary communication equipment
- Power generators
- Respirators
6. What are elements of the emergency plan?

The following Mine Emergency Response Plan includes:

- All possible emergencies, consequences, required actions, written procedures, and the resources available
- Detailed lists of key personnel including their home telephone numbers, their duties and responsibilities
- Floor plans, site plans and plans of the location of stored hazardous liquids and gases in and around the property
- Large scale maps showing evacuation routes and service conduits (such as gas and water lines).

The plan provides key personnel members with written instructions about their particular emergency duties and outlines the course of action they should take in the event of an emergency.

The following are the more relevant parts of the Mine Emergency Response Plan and may not cover every situation in every workplace but reference the most critical elements.

7. Objective

The objective is a brief summary of the purpose of the plan; that is, to reduce human injury and damage to property in an emergency. It also specifies those staff members who may put the plan into action.

The objective identifies clearly whom these staff members are since the normal chain of command may not prevail in the event of an emergency. At least one of them must be on the site at all times when the mine is operational. The extent of authority of these personnel must be clearly indicated.
8. Organization

One individual will be appointed and trained to act as Emergency Co-coordinator as well as a "back-up" co-coordinator. However, personnel on the site during an emergency are key in ensuring that prompt and efficient action is taken to minimize loss. In some cases it may be possible to recall off-duty employees to help, but the critical initial decisions usually must be made immediately.

Specific duties, responsibilities, authority, and resources are clearly defined.

Among the responsibilities that must be assigned are:

- Reporting the emergency
- Activating the emergency plan
- Assuming overall command
- Establishing communication
- Alerting staff
- Ordering evacuation
- Alerting external agencies
- Confirming evacuation complete
- Alerting outside population of possible risk
- Requesting external aid
- Coordinating activities of various groups
- Advising relatives of casualties
- Providing medical aid
- Ensuring emergency shut offs are closed
- Sounding the all-clear
- Advising media

This list of responsibilities are clearly defined for all key personnel, however, in some instances where the mine is operating with reduced numbers of personnel it may be necessary to assign them with multiple duties.

External organizations that may be available to provide assistance (with varying response times) include:

- Ministry of Energy & Mines
- Ministry of Water, Land & Air Protection
- Ministry of Forests
In the event that outside emergency personnel are required to respond to an emergency on the mine site they will be fully briefed of any hazards that they may encounter at the areas they are responding to.

These organizations will be liaised with in the planning stages to discuss each of their roles during an emergency. Mutual aid with other mines is in place in the event of an emergency.

Pre-planned coordination is necessary to avoid conflicting responsibilities. For example, the police, fire/rescue departments, ambulance services and any other responding agency may be on the scene simultaneously.

A pre-determined chain of command in such a situation is required to avoid organizational difficulties. Under certain circumstances, an outside agency may assume command.

Possible problems in communication have been mentioned in several contexts. Efforts will be made to seek alternate and effective means of communication during an emergency, especially between key personnel such as overall commander, on-scene commander, Mount Polley response personnel, engineering, fire/rescue departments, medical and other outside agencies.

The Mine Emergency Response Plan lists the telephone numbers of all personnel and agencies critical for effective response and control of any outlined or perceived emergency.

9. Procedures

Many factors determine what procedures are needed in an emergency, such as
The degree of emergency,
The size of organization,
The capabilities of the organization in an emergency situation,
The immediacy of outside aid,
The physical layout of the premises, and
The number of structures determines procedures that are needed.

Common elements in all emergencies include pre-emergency preparation and provisions for alerting and evacuating staff, handling casualties, and for containing the emergency.

Natural hazards, such as floods or severe storms, often provide prior warning.

The Mine Emergency Response Plan takes advantage of such warnings with, for example, instructions on sand bagging, removal of equipment to needed locations, providing alternate sources of power, light or water, extra equipment, and relocation of personnel with special skills. Phased states of alert allow such measures to be initiated in an orderly manner.

The evacuation order is of greatest importance in alerting staff. To avoid confusion, only one type of signal will be used for the evacuation order. Commonly used for this purpose are the Mill fire alarms with personnel mustering at the first aid station.

The all-clear signal is less important since time is not such an urgent concern and will be communicated by radio, telephone or by word of mouth.

The following "musts" are part of the Emergency Response Plan:

- Identifying evacuation routes & alternate means of escape.
- Keeping all routes free from obstruction
- Providing training in all emergency response procedures
- Specifying safe locations for staff to gather for head counts to ensure that everyone has left the danger zone. Assign individuals to assist any handicapped employees in emergencies.
- Carrying out treatment of the injured and search for the missing simultaneously with efforts to contain the emergency.
- Providing alternate sources of medical aid when normal facilities may be in the danger zone.
• Containing the extent of the property loss should begin only when the safety of all staff and neighbors at risk has been clearly established.

10. Testing and Revision

Completing a comprehensive plan for handling emergencies is a major step toward preventing disasters. However, it is difficult to predict all of the problems that may happen unless the plan is tested. Exercises and drills will be conducted to practice all or critical portions (such as evacuation) of the plan. A thorough and immediate review/de-briefing after each exercise, drill, or after an actual emergency will point out areas that require improvement.

The plan should be revised when shortcomings have become known, and should be reviewed at least annually. Changes in plant infrastructure, processes, and materials used and key personnel are occasions for updating the plan.

It should be stressed that provision must be made for the training of both individuals and teams, if they are expected to perform adequately in an emergency. An annual full-scale exercise will help in maintaining a high level of proficiency.

In order to maintain a workable and effective plan in place it is necessary to identify some of the most common errors found with most emergency response plans, these being;

1. No upper management support
2. Lack of employee buy-in
3. Poor or no planning
4. Lack of training and practice
5. No designated leader
6. Failure to keep the plan up to date
7. No method of communication to alert employees
8. Applicable Codes and Standards are not a part of the plan
9. No procedures for shutting down critical equipment
10. Employees are not told what actions to take in an emergency
IDENTIFYABLE POTENTIAL MINE SITE/MINE LEASE EMERGENCIES

1. Major Structural Fires

2. Mill, Mine Maintenance and warehouse buildings

3. Forest Fires

4. Land Movements

5. Building Collapse

6. Weather Related Occurrences

7. Avalanches

8. Vehicle accidents

9. Spill Response Procedures

A. **Major Structural Fires**

Structural fires may present a minimal potential hazard at Mount Polley as most buildings are constructed of steel and cement. The offices and administration complex within the main building would pose a greater threat taking into consideration the materials from which they are constructed of. The following functions listed below are essential in maintaining the integrity of the fire suppression systems and also providing adequate and effective response in the case of an outbreak of fire.

- **Fire Prevention**

  Monthly fire suppression systems inspections are essential to ensure the integrity of all systems. Scheduled maintenance and repairs are imperative in order to maintain the integrity of fire suppression systems.
Particular attention to housekeeping and observing the National Fire Code will ensure that fire protection remains effective at all times. Combustibles shall not be stored inside buildings unless they are part of a work process. Flammable materials such as paints and aerosols shall be stored in approved and appropriate storage cabinets.

- **Evacuation of the Entire Building**

  All persons shall be evacuated from the building involved and shall assemble in a common area that is a safe distance away and upwind of any fire and smoke. Circumstances permitting, the normal designated gathering or muster area shall be the “First Aid Station” located in front of the main administration building.

- **Head Counts of Persons**

  This includes all workers and visitors in the area who have signed in at the administration building inclusive of other workers not directly related to the area but who may have had occasion to enter that area, this being the case a head count shall be performed for all workers and visitors who have reported for work or signed in, on arrival at the mine site.

- **Contact the Local Fire Department**

  In the event of a fire and to ensure that other resources are readily available, if needed, it is essential to contact the local fire department at “Big Lake”.

- **Shut Down Utilities**

  Shut off and isolate power to the fire area, this will eliminate any further fuelling of the fire.
• Flammable Gas Containers

If it can be achieved safely and if at all possible remove gas cylinders and propane tanks from the fire area.

• Victim Recovery

If unknown, the start of a search for unaccounted persons should commence at the area last seen. After searching this area, a systematic search should be made commencing, if possible, at the most hazardous area and completing the search with the least hazardous.

• Water Sources

One of the most important factors to consider when fighting fire shall be maintaining an adequate supply of water and ensuring that alternate sources are readily available.

B. Mill, Mine Maintenance & Warehouse Buildings

Successful evacuation and accurate accountability of personnel from the mill complex will preclude the necessity to put emergency response team members at risk if they were required to enter the buildings for the purposes of searching for victims.

Basic Evacuation Procedure:

Reasons for Evacuation:

When an emergency occurs that is significant enough to affect the health and safety of employees in any work area, an evacuation of the areas may be required.

Examples of emergencies requiring evacuation are fires that cannot be controlled or contained, the release of toxic gases and any other situation where the health and safety of personnel may be at risk.
**It is of the utmost importance, with safety in mind, that a fire be contained at the initial/incipient phase where a hand held fire extinguisher may be most effective**

Procedure for Evacuation:

**Evacuating a specific area:**

1. Anyone finding or recognizing an emergency situation that would be cause for evacuation should ensure that everyone in the immediate area is aware of the emergency by raising/sounding the alarm.
2. Attempts should be made to contain the condition using all reasonable measures without compromising ones own or anyone else’s health and safety.
3. If appropriate, close doors around the area to starve the fire of Oxygen and contain any toxic gases.
4. Evacuate the area by attempting to head directly into any flow of fresh air. If this is not possible, head directly outside the affected area using the shortest and safest route possible.
5. When safely outside and at a safe distance, assign someone to watch over the entrances in the event that other personnel may inadvertently enter the affected area.
6. All employees, with the exception of those with assigned duties shall muster at the **FIRST AID STATION**.
7. After personnel from the affected area have mustered at the First aid Station an accurate headcount shall be conducted taking into account any personnel who have been assigned Emergency response duties and any other personnel who may have responded to the alarms from other areas of the mine.
8. The supervisor of the area affected by the emergency shall conduct the headcount.
9. Personnel shall only be allowed to return to their worksite when the designated Control Officer/Incident Commander has given the “all clear”.

**C. Forest Fires**
With the mining area having been "logged off" the potential of a large fire in the pit is minimal, however the potential of forest fire still exists around the property, hence the following considerations should be taken.

- **Forest Fire Prevention**

  It is essential that any burning of combustibles be carried out in a diligent manner, taking into consideration the proximity of forest and timber. Educate and inform visitors and contractors of the importance to be aware of ignition sources if working in or close to forested areas of the mine site.

- **Fire Discovery**

  Close and early attention shall be made during and after lightening storms to ensure that any fires that have started are extinguished before they spread.

- **Initial Attack**

  Upon the discovery of a fire and with a failed initial attempt to extinguish it, trained response personnel shall be dispatched as soon as possible. Response time is critical in order to achieve early suppression.

- **Ministry of Forests**

  The Ministry of Forest’s fire suppression crews have extensive training and expertise in this field and should be contacted at the onset of a fire.

- **Access and Egress to the Mine site**

  In the event of a forest fire breaching the mine access road, this would probably prevent any egress or entry of the mine site and measures such as providing alternate means of transportation, if necessary, would have to be taken into consideration.
Another concern would be if persons were stranded at the mine site, food would need to be brought in other than by road.

- **Available Equipment**
  Mobile equipment such as dozers, front-end loaders and any other available resources shall be readied to respond to the construction of fireguards under the direction of a qualified person.

- **Transportation of crews**
  The transport of personnel to the fire site shall be necessary by means of crew cabs or other acceptable modes.

- **Time scheduling**
  A person shall be appointed to keep accurate record of the times and names of personnel accessing and regressing the fire site.

### D. Land movement

#### Prevention of Burial

Either a shift boss or a qualified person will examine dumps or stockpiles at intervals not exceeding 4 hours before any work is performed below in the run-out zone or on top of the dump.

The conditions noted shall be recorded in the daily logbook. Items of concern include:

- **Dumps and Stockpiles**
  - Cracks appearing on the dump floor or face.
  - Subsidence of the dump floor.
  - Material hanging up on the face of the dump.
  - Water flows or pooling

- **Pit walls:**
  - Cracks developing along or near the edge.
  - Cracks in the face.
MOUNT POLLEY MINING CORPORATION

- Overhangs developing on the bench face.
- Water flowing into the rock

If any of the above items are observed contact the Shift boss who will inspect the site and determine what actions are to be taken. In the event that the area appears unsafe do not enter and contract the Shift boss immediately for direction.

If cracks are observed on the rock dump floor the area shall be blocked off and monitored to determine if additional movement is occurring. Dumping in the area shall not recommence until the Mine Superintendent gives approval.

Overburden and soils piles will slough and compact as they are being built. Dumping shall take place back from the edge and dozed over. If bulging of the face or curved cracks are observed dumping shall cease in the area and the area shall be monitored for additional movement. Dumping in the area shall not recommence until the Mine Superintendent gives approval.

**E. Building Collapse**

The roofs on the buildings at Mount Polley have been built to withstand a 30-year high for snow load, thus it would be highly unlikely that a building would collapse due to snow load. However, an indicator has been installed on the main Mill building to indicate depth of snow.

Ice build up on the roof of the main Mill building has been an inherent problem at Mount Polley but shall be remedied by laying heat tape down during 2005.

**Collapse Prevention**

Monitoring of snow load and frequent inspection of building structures shall be made to identify any defect in structural integrity.

**Evacuation of the Buildings**

Personnel will be evacuated from the building in the event of a potential or identifiable structural defect.
Evacuation will adopt the same procedure as that which shall be followed for fire and that being to leave the area and “muster” at the First Aid Station

Head Counts

In the event of an emergency all personnel on the Mount Polley property shall be accounted for

Structural Integrity

If the structural integrity is compromised in some way, any rescue attempt shall be preceded by an inspection by a qualified and authorized person

Utilities

All electrical supplies together with any gas or water supplies not necessary for any rescue operation shall be isolated from the building involved.

Support Equipment

Any equipment such as lifting or raising devices shall be immediately made available to any rescue operation or any other effort to render the building safe.

F. Weather Related Occurrences

Heavy snowfall, rainfall, cold temperatures and high winds can create adverse weather conditions, which could have impact on the safety of personnel and mine production.
To safeguard personnel, property and equipment, operations would need to be shut down if a foreseeable potential for a dangerous occurrence was perceived.
Weather related problems might affect operations at the mine, the safety of personnel on the mine site and the well being of personnel traveling to and from the mine site.
Traveling on the mine site or on the highway may involve vehicle accidents and would require that a proactive approach be taken to avoid such occurrences.
Prevention of Weather Related Occurrences

Consideration should be given to the severity of the weather and the shutting down of operations to ensure the safety of personnel, property and equipment. Having workers return home may be an option, taking into consideration whether the roads are safe and passable.

Head Count

As is standard procedure, a head count should be taken in the event of any emergency situation.

Travel

To minimize the risk of injury, use buses or multi-passenger vehicles if travel is deemed to be a safe and an appropriate measure. In the event of extreme weather conditions at the mine site, consider escorting haul trucks and personnel to an area for assembly.

G. Avalanches

The potential for avalanche in and around the Mount Polley mine site is minimal. Potential areas where an avalanche hazard may exist would be on inactive waste dumps around the property having slopes angles of between 30 & 45 degrees.

Prevention of Occurrence

Ensuring that avalanche areas are monitored and stabilized before any work is conducted near or around them can minimize the risk of an incident. If work has to be carried out below a potential avalanche zone, then those personnel will be required to carry a transceiver on their person.

Head Count
In the event of an unlikely avalanche, a head count of all workers on site shall be taken.

Pre-Response

Before any search or rescue attempt, the avalanche zone shall be inspected and an assessment made as to the stability of the slope. If a hazard does exist, control measures shall be taken to ensure stability of the slope. Access will only be allowed to designated personnel.

Support personnel

The local dog masters, if any, need to respond A.S.A.P by the quickest transportation available. Refer to resource listings

Support Equipment

Equipment such as shovels, probes and transceivers will be made available in the event of a slide.

H. Vehicle incidents

There is a potential for vehicle accidents involving multiple casualties on the Mine-Access road. There would be a reasonably high risk of multiple casualties taking into consideration the volume of traffic and the mode of transportation, that being buses and multi-passenger vehicles.

Access control

One of the early priorities would be to prevent access to the scene by assigning 2 persons as guards, one at each end of the mine access road. Travel into and out of the mine can then be restricted to essential and key personnel.
Emergency Response Personnel

If indeed there are multiple casualties it may be necessary for additional outside medical help. It would take a minimum of 1 hour for help to arrive from Williams Lake and if available, 30 minutes response from Likely; therefore, it is of the utmost importance that a “Triage station” be established so that casualties can be transported in the order of emergency medical importance.

Transportation

Consideration must be given to the situation where there are multiple casualties needing transportation to medical facilities in Williams Lake. If this is the case it may be necessary to facilitate the use of crew cabs or other multi-passenger vehicles as long as they can provide the necessary comfort for the casualties.
## STANDARD PROCEDURE

<table>
<thead>
<tr>
<th>SUBJECT: Mine-site Emergency Procedure Policy</th>
<th>PROCEDURE NO:</th>
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<td>EFFECTIVE DATE: February, 2005</td>
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### OBJECTIVE:

1. To provide a pre-determined course of action during a Mine-site emergency situation.

2. To provide a listing of the duties and responsibilities of personnel.

3. To minimize losses and personal injury during a Mine-site Emergency Situation.

4. To restore operations to normal.

### GENERAL DIRECTIVE:

When an emergency situation has been communicated, all personnel should return to their office or post (if possible) except those designated as part of the “Emergency Control Group”. They must report to the “Emergency Control Officer” as soon as possible. (Emergency Control Center / Conference Room)

### SUMMARY OF PRIMARY RESPONSIBILITIES:

1. The General Mine Manager is responsible for having the required number of personnel and supervisors trained in mine rescue and, if necessary. In the case of an emergency, will assemble the Emergency Control Group for the direction of rescue and recovery operations.

2. Department Heads will ensure their personnel are familiar with this policy and review the procedures with them quarterly.
3. The Emergency Control Group will consist of the General Manager, Chief Engineer, Mill Superintendent, Mine Superintendent, Maintenance Superintendent, Human Resources Superintendent and Safety Superintendent or designate.

4. The Emergency Control Center will be located in the Conference Room.

5. In the absence of the General Manager a designated Senior Person will be in charge of the mine during an emergency and will assume the duties of the Emergency Control Officer.

**ACTIONS:**

1. Prior to the arrival of the General Manager, the designated Senior Supervisor on site shall assume the duties of the Emergency Control Officer during an emergency.

2. The Emergency Control Officer shall:


3. Specific responsibilities and duties of management and key personnel as outlined in the “Mine-site Emergency Contingency Plan.

4. Information regarding the nature of the emergency is to be communicated to the public only on approval by the General Mine Manager.

5. All ‘OUTSIDE’ phone lines must go through the receptionist or person designated by Emergency Control Officer.

6. A de-briefing shall be held after each emergency, to review and revise the Emergency Procedure, if required.
The Mount Polley Mine Emergency Contingency Plan is formulated and planned to afford maximum resources and manpower to minimize the effects of any and all emergency situations that may occur at the Mount Polley Mine.

Managers, supervisors and workers alike will receive the training required to ensure that knowledgeable decisions and competent practices are conducted in carrying out their duties for the protection and preservation of lives and protection of mine property.

The Emergency Contingency Plan will be reviewed on an annual basis or when changes and/or additions to the mine-site occur such as to affect the Emergency Contingency Plan.

Managers, supervisors and workers will receive refresher training in the Emergency Contingency Plan on an annual basis and/or when changes and/or additions to the mine-site occur such as to affect the ECP.

The Mine-site safety department has been charged with ensuring that the training and re-training of managers, supervisors and workers in the Emergency Contingency Plan and any revisions is conducted when necessary.

__________________________________
General Manager
MOUNT POLLEY MINING CORPORATION

STANDARD PROCEDURE

SUBJECT: Emergency Control Officer Duties

PROCEDURE NO:

EFFECTIVE DATE: February 2005

REVISION DATE:

EMERGENCY CONTROL CENTER OFFICER:

The Emergency Control Officer will be the General Manager or in his absence, his designate.

This checklist is provided as a guide to ensure all essential tasks are performed during a Mine-site general emergency. As well, it will provide a record of actions taken during the emergency for evaluation of the emergency procedures. Separate notes should be kept for all times and actions taken during the emergency that are not covered by the checklist.

Name of the Emergency Control Centre Officer: _____________________________________________

Date: ____________________________ Time: ____________________________ (am/pm)

Relieved by: ____________________________ Time and Date: ____________________________

CHECK:

- Ensure that Emergency Control Group is in place.
- Ensure that Governmental Agencies have been contacted.
- Ensure Emergency Response Team preparations are underway.
- Obtain information on Emergency Response assistance available from other mines, if required.
assign senior personnel duties:

- mine/building/plans
- briefing officer
- maintenance
- transportation & medical evacuation
- communications

- ensure mine plans of the incident area are available, including copies for emergency response personnel.
- determine plan of action and ensure mine rescue personnel are briefed accordingly. (briefing to be conducted in the mine rescue station)

- ensure standby teams and equipment are available as required.
- ensure mine rescue teams are debriefed following each assignment.

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<tr>
<th>name or e.r.t. person</th>
<th>location</th>
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</table>
AFTER THE EMERGENCY IS OVER:

- Ensure that all personnel have been accounted for.

- Ensure all planning; briefing and de-briefing sessions are catalogued.

- Initiate the investigation regarding the incident.

- Ensure Emergency Response Team members are provided for.

- Ensure that all Emergency Response equipment is restored to a “Ready State”

- Notify Governmental Agencies regarding cessation of emergency situation
# Chief/Senior Engineers Duties:

1. Upon notification of Emergency Situation immediately proceed to Emergency Control Center.

2. Arrange to provide the following:
   - Provide complete and up to date plans showing the relevant areas of the mine that have been affected by the emergency
   - Provide assistance and advise as required by the Emergency Control Officer.
   - Make recommendations to the Control Officer:
<table>
<thead>
<tr>
<th>SUBJECT: Mill Superintendent Duties</th>
<th>PROCEDURE NO:</th>
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<td>EFFECTIVE DATE: February 2005</td>
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**Mill Superintendent Duties**

**Mill Building Emergency:**

1. Ensure that all Mill Department Employees are evacuated from the Mill Building (If deemed necessary)

2. Immediately notify the Safety Department as to the nature of the emergency.

3. Notify the Emergency Response Team Members if the emergency is in the mill complex

4. Contact the First Aid Attendant, if casualties are involved.

5. Contact the Environmental Coordinator, if spillage of chemicals are involved.

6. Stand-by to render advice and assistance.

**All Other Emergencies:**

Immediately proceed to the Emergency Control Center.
Mill Superintendent

Duty Checklist

- Employees evacuated from Building and checked off on Master Sheet.

Contact:

<table>
<thead>
<tr>
<th>Name</th>
<th>Time Called</th>
<th>Time Arrived</th>
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<tbody>
<tr>
<td>Safety Department</td>
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<td>Maintenance Department:</td>
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<td>First Aid Attendant:</td>
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<td>Mine Secretary:</td>
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<tr>
<td>Environmental Coordinator:</td>
<td></td>
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- Provide advice/assistance on-site.
### SUBJECT: Mine Superintendent

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</tr>
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<td></td>
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</tbody>
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**EFFECTIVE DATE:** February 2005

**REVISION DATE:**

---

**Upon receiving notification of an emergency situation:**

1. Immediately proceed to the Emergency Control Center.

2. Assist in determining and identifying the situation regarding the cause, location and nature of the incident and the present location of personnel.

3. Assemble and provide all available personnel who have the expertise to aid in the emergency situation.

4. Assemble and provide all available equipment required to aid in the emergency situation.
SUBJECT: Maintenance Superintendent Duties

PROCEDURE NO: 

EFFECTIVE DATE: February 2005

REVISION DATE:

**Maintenance Superintendent Duties:**

1. Upon notification of an Emergency situation immediately proceed to the Emergency Control Center.

2. Determine the location of any maintenance personnel.

3. Arrange to have all key personnel notified to stand by: Electricians, Mechanics, Crane Operators and any other specialized equipment operators.

4. Assign an Operator for the Emergency response truck and move the Emergency Vehicle[s] as, if and when required.

5. Ensure mobile equipment and personnel transportation vehicles are available.

6. Inspect and test telephone/radio communication systems.

7. Arrange for the transportation of any support personnel who may be required to assist the Mine Rescue response team.

8. Arrange for all necessary onsite manpower assistance.
Human Resources Superintendent

Objectives:

1. Immediately proceed to Emergency Group Control Center.

2. Conduct duties as per checklist:

Checklist:

- Administer on-site communications with Supervision and Workers.
- Administer contact and communications with family members.
- Administer communications with news media.
- Administer communications with site contractor’s head offices.
- Administer communications to governmental agencies.
- Administer communications with other mine Sites, if additional assistance is required.
- Closely monitor and ensure proper and appropriate communication with outside parties.
Upon Notification of Emergency Situation:

1. Immediately proceed to the Mine Rescue Station and organize the Emergency Response personnel together with the appropriate rescue equipment.

2. Establish Emergency Response team rotation schedule, if the situation necessitates this.

3. Supervise the gathering of all necessary equipment and vehicles.

4. Ensure that SCBAs are bench tested under the supervision of the Team Captain[s].

5. Brief Emergency Response Team Captain[s] and Members regarding the nature of the emergency situation.

6. Brief Emergency Response Team Captain[s] and Members regarding their assignments.

7. Ensure that proper and adequate communication is established and maintained with all Active Teams throughout the operation.

8. Ensure that a complete record is kept regarding assignments, communications and de-briefing of Teams.
Assemble Equipment:

- Radios
- SCBA
- Stretcher/Equipment
- Lifting Bags
- Foam Machine[s]
- Rope/Tackle equipment
- First Aid Equipment
- Ambulance

Emergency Response Team Assignments & Debriefing:

ERT #: ___ Location Sent: _____________________
Time: _________am/pm

Initial Instructions given:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Communications Received:

________________________________________________________________________
________________________________________________________________________
Follow-up Instructions Given:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Time Returned: __________am/pm

Team Debriefing:
Emergency Response Team Members:

Captains Name: _________________________ Captains Signature: ____________________________

Debriefing conducted by: _______________________

Date: ______________ Time: ___________ am/pm
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

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   1.2. Definition of an Emergency
   1.3. Definition of a Reportable Spill
   1.4. Legal Definition:
   1.5. Objectives:
   1.6. Plan Audits and Revisions:
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### MOUNT POLLEY MINING CORPORATION

**Emergency Spill Response Contingency Plan**

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<td>G</td>
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</tbody>
</table>
1. **Overview**

   **1.1. Policy:**

   To ensure preparedness and to maximize valuable time in case of an emergency.

   To confirm Mount Polley Mining Corporation commitment to operating its business at the highest standards to protect the health and safety of workers, the public, and the environment.

   **1.2. Definition of an Emergency**

   A current or imminent situation that requires prompt coordination of actions of trained persons to protect health, safety, or welfare of people and to limit damage to property and to the environment.

   **1.3. Definition of a Reportable Spill**

   - A release or discharge into the environment, not authorized under the BC Environmental Management Act of a substance in an amount equal to or greater than the amount listed in Appendix E.

   - A release of mine influenced water of any volume (outside of permitted effluent discharge volumes) is reportable.

   - A release or deposit any deleterious substance in any water.

   **1.4. Legal Definition:**

   A spill means any polluting substance whether gaseous, liquid or solid that, in the opinion of the minister, is capable of causing pollution if it were to:

   - Escape into the air
   - Be spilled onto any land or into any body of water, or
   - Escape onto any land or into any body of water.
1.5. **Objectives:**

1. Ensure compliance with B.C. Environmental Management Act: Part 7
2. Ensure compliance with the Federal Metal Mining Effluent Regulation.
5. Outlines response strategies to spills of potentially hazardous substances at or near the mine-site.
6. Facilitate the rapid deployment of trained personnel to deal with spills so that the environmental impact and risk are minimized.
7. Provides Guidelines for Communicating environmental incidents and issues to corporate management.
8. Ensure that responsible personnel are:

   - Familiar with the Emergency Spill Response Contingency Plan.
   - Aware and are trained in the potential hazards associated with the Plan.
   - Understand and are trained in the responsibilities of Team Members.
   - Locations of spill containment materials.
   - Action Plan for respective substances.
   - Reporting procedures.

1.6. **Plan Audits and Revisions:**

The Environmental Superintendent is responsible for conducting an annual review of this plan and revising it when necessary.

1.7. **Training:**

It is the responsibility of the Environmental Superintendent, with the assistance of the Safety Department, to organize, coordinate and conduct training sessions of the mine-site Emergency Response Team Members.
2. Contact Numbers
2.1. Critical Personnel Contact Phone Numbers

General Manager (Tim Fisch):
- Bus. Ph: 250-790-2215
- Home Ph: 250-296-4135
- Cell Ph: 250-267-1856

Mine Operations Manager

Environmental Superintendent (Art Frye):
- Home Ph: 250-492-4023
- Cell Ph: 250-809-4595

Administration Manager (Dale Reimer):
- Bus. Ph: 250-790-2215
- Home Ph: 250-494-8369
- Cell Ph: 250-305-8530

Human Resources Superintendent (Paul Allen):
- Bus. Ph: 250-790-2215
- Home Ph: 250-790-2097
- Cell Ph: 250-267-2097

Senior Safety Coordinator (Wally Rennie):
- Bus. Ph: 250-790-2215
- Home Ph: 250-398-2915
- Cell Ph: 250-267-5434

Mill Operations Superintendent (Doug Ablett):
- Bus. Ph: 250-790-2215
- Home Ph: 250 303-1479

Mill Maintenance Superintendent (Darcy Hannas):
- Bus. Ph: 250-790-2215
- Home Ph: 250-296-0048
- Cell Ph: 250-267-7024

Electrical Superintendent (Randy Drobot):
- Bus. Ph: 250-790-2215
- Home Ph: 250-296-4383
- Cell Ph: 250-305-8539

Mine Maintenance Superintendent (Merv Wourms)
- Bus. Ph: 250-790-2215
- Home Ph: 250-314-1232
- Cell Ph: 250-305-9530

Company President (Brian Kynoch)
- Cell Ph: 604-488-2654
2.2. Agency Critical Contact Phone Numbers

Poison Control Centre: 1-800-567-8911
Hospital Emergency Room: 1-250-392-8225
BC Ambulance Service: 911 1-250-392-5402

Big Lake Fire and Rescue: 911 1-250-243-2400
City Hall Williams Lake: 1-250-392-2311
Likely Fire and Rescue: 911 1-250-790-2286
Report Forest Fires: 911 1-800-663-5555
RCMP Williams Lakes Detachment: 1-250-398-6211

Government Agencies:

<table>
<thead>
<tr>
<th>Provincial Emergency Program: 24 hour service:</th>
<th>1-800-663-3456</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC Ministry of Environment (Williams Lake, Enviro. Protection)</td>
<td>1-250-398-4716</td>
</tr>
<tr>
<td>BC Ministry of Environment (Williams Lake, Enviro. Management)</td>
<td>1-250-398-4530</td>
</tr>
<tr>
<td>BC Ministry of Environment (Kamloops)</td>
<td>1-250-371-6220</td>
</tr>
<tr>
<td>Ministry of Mines District Inspector of Mines (Steve Rothman):</td>
<td>1-250-319-2054</td>
</tr>
<tr>
<td>Ministry of Health (non-emergency health information)</td>
<td>811</td>
</tr>
<tr>
<td>Environment Canada (24hEmergency – report to BC Ministry of Justice)</td>
<td>1-800-663-3456</td>
</tr>
<tr>
<td>Environment Canada (Vancouver Office)</td>
<td>1-604-664-9100</td>
</tr>
</tbody>
</table>

Spill Response Advice:

Canutec (Canadian Transport Emergency Centre) 1-613-996-6666
Canwest Propane 1 800-943-7678
Orica (Williams Lake) 1-250-398-2611
Quandra Chemical Reagent 1-604-940-2830 1-888-940-2830
Anachemia Science 1-800-361-0209
Brenntag Canada Inc. 1-800-661-1830 1-604-685-5036

Commercial Clean-Up Services:

Triple P Sanitation: 1-250-392-4414
Gord’s Septic Services 1-250-392-4647
Orville’s Septic Service 1-250-395-4638
Arrow Transport 1-250-571-7764/7760
2.3. Regulatory Reporting Numbers

The Emergency Contingency Plan Control Officer/Designate must contact the Provincial Emergency Program (PEP).

1-800-663-3456

This is a 24-hour toll free number.

The Provincial Emergency Program staff will notify all concerned agencies, including the following, as appropriate:

The local PEP office.

The Williams Lake RCMP 1-250-392-6211
The Williams Lake Fire Department 1-250-392-4321
The Williams Lake Ambulance Service 1-250-392-5402

Ministry of Environment (Williams Lake Enviro. Protection) 1-250-398-4716
Ministry of Environment (Williams Lake, Enviro. Management) 1-250-371-6220

Ministry of Health. 1-800-663-7867

Environment Canada (24hEmergency – report to BC Ministry of Justice) 1-800-663-3456
Environment Canada (Vancouver Office) 1-604-664-9100

Soda Creek Indian Band 1-250-989-2323
Williams Lake Indian Band 1-250-296-3507
3. Spills

3.1. Potential Spill Materials:

1. Gasoline
2. Diesel Fuel
3. Waste Oil
4. Coolant
5. Hydraulic Fluid
6. Mill Tailings
7. Propane
8. Lime
9. Mill Reagent PAX
10. Mill Reagent NaHS
11. Acids
12. MIBC
13. Ammonia Nitrate
14. Concentrate
15. Mine Influenced Water
16. Till/mud/soil/rock
3.2. Potential Spill Types:

1. Minor spills from equipment due to leaks.
2. Minor spills from containers being damaged or knocked over.
3. Minor/Major spills from fuelling stations.
4. Major spills from storage tanks outside the Mill.
5. Major spills from storage tanks inside the Mill.
6. Major spills from transportation and delivery vehicles.
7. Spills from slurry tailings line.
8. Releases of mine influenced water from water collection or transportation facilities.

3.3. Potential Spill Locations:

1. General Mine-site grounds.
2. Mill Building and surrounding areas.
3. Fuelling station.
4. Access road to mine site.
5. Access road around mine site.
6. Open Pits.
7. Ditches and pipeline routes.
8. Water storage sumps and ponds.
9. Creeks, lakes and surface water bodies in and around the mine site, including the Hazeltine Creek effluent discharge site.

3.4. Spill Response Materials Locations

1. Underground fuel island (Wight Pit).
2. Light vehicle fuel island (Warehouse).
3. Fuel Island (beside the Crusher).
4. Maintenance areas (Pit Shop, Finning/Shovel Crew Laydown)
5. Springer Pit.
6. TSF Laydown.
7. Warehouse (Entrance and in yard, with spare materials in stock).
8. Environmental Trailer.
3.5. Spill Assessment Potential

Transportation:

The area of greatest vulnerability for spills is transport related incidents resulting from road conditions, and mechanical failures. Contingency plans are filed by the Shipper of the transport company with Transport Canada and drivers are required to be in possession of these files in order to address these types of incidents. Ensure that Shipping Paper is carried in the cabin of the transport vehicle.

The Company:

Undertakes to provide information to the Shipper on avoidance of poor road conditions and rescheduling of deliveries, if necessary. Ensures to maintain the mine road conditions in as favorable condition as possible. Provides the manpower and equipment required to control and minimize the effects on the environment.

Fuels:

Standard procedures are in effect for the safe unloading of fuels to storage tanks and safety berms are provided to contain spills at the storage facilities. Emergency Contingency Plans for effective response to spills are addressed in this document.

Lime:

Unloading of granular quicklime from bulk tank trucks can result in spillage. These spillages, if any, will be cleaned up with a front-end loader and disposed of by recycling the material to the crusher.

Explosives:

Transport, handling and transfer of explosives are addressed within the Emergency Contingency plan of this document. Explosive materials storage is in separate containers and conform to the Ministry of Mines and Transport Canada standards.

Tailings:

The tailings lines are protected by against vehicle collision. The pipeline is also contained in a ditch along the access road to the tailings pond.

Mine Influenced Water:

Site water collection sumps, ponds, and ditches, water transport pipes, and the Hazeltine Creek Discharge System, all have the potential to release water into the environment, possibly entering surface water bodies. Breaches may occur due extreme runoff events, physical damage to pipes or other facilities, or pump failure.
Hazeltine Creek Effluent Discharge System

The installation of continuous monitoring for conductivity, temperature, and flow provides employees with immediate notification of changes in the discharge. As well, the emergency “shut down” system will prevent the discharge of water which exceeds the set limits for continuous monitoring as defined by Mount Polley Mining Corp. the Metal Mines Effluent Permit, and Ministry of Environment PE-11678. Pump failure triggers emergency “shut down” and all storage tanks are designed to overflow into existing effluent storage facilities.

Other Consumables:
All consumables are contained within their original shipment containers prior to transfer to end user containers. End user spillage Emergency Contingency Plans are addressed in this document.
4. **Response**

4.1. **Contact Group**

Spills of chemicals, fuels and other substances may occur as isolated events or they may occur with other emergencies such as fire, explosion, natural causes or accident.

A number of response personnel may be involved to protect mine property and the health and safety of mine personnel and the public.

The key persons involved during a spill occurrence would be as follows:

- The person discovering the spill, and his/her Supervisor.
- The General Manager or his designate (who may be the On-Call Supervisor if the General Manager cannot be reached outside of regular hours).
- The Area Superintendent.
- The Environmental Superintendent.
- The Safety Superintendent or his Designate.
- The Emergency Response Team Leader (RTL).
- The clean-up crews.

The responsibilities of key personnel are outlined in the Personnel Responsibilities section.

Applicable telephone numbers are kept current and posted at the mine-site.
4.2. First-On-The-Scene Personnel Responsibilities

4.2.1. Person discovering the spill:

Assess the hazard to one’s own health and safety and to others in the vicinity.

If the risk of gas poisoning exists ensure to conduct atmospheric testing with the appropriate equipment prior to entry.

If fire or explosion hazards are perceived immediately retreat to safe distance.

4.2.2. In both these situations:

Barricade/Flag the area.

Place physical guards at a safe distance.

Warn others in the immediate vicinity of the situation.

Notify the Area Supervisor IMMEDIATELY following initial response action.

Arrange for appropriate operating equipment to be shut down, if applicable, to minimize the extent of the spill.

If warranted, notify on-site Industrial First Aid Attendant for first aid.

Fire fighting response will be co-ordinated by Area Supervisor in attendance backed up by Emergency Response Team personnel.

The Supervisor or the person discovering the spill with the following information must contact the General Manager or his designate IMMEDIATELY following initial response action:

- Name of person discovering the spill.
- The time of the spill.
- The location of the spill.
- The type of substance spilled.
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

- The quantity of material been spilled.
- The cause of the spill.
- The weather conditions.
- Perceived potential for hazard, and any injury to aquatic systems, wildlife or people.
- Actions already taken.
- Whether a fire or explosion hazard is deemed to exist.
- Personnel already notified.
- If the spill is contained.
- Any environmental effects that have or could occur.
- Any injuries.

Note:

Ensure every remedial action is taken safely and efficiently to stop and/or minimize the extent of the spill.

The Supervisor must remain in place to direct personnel and equipment upon instructions from the Command Post.
4.3. Levels of Emergency

Level 1- A spill that is **below the external reportable quantity** or an emergency where the **potential health and safety risks are low** (no employees are injured). Incidents that can be cleaned up or resolved with little impact on the mine and or environment. No command post is necessary in such an incident.

Level 2- A spill that is **above the external reportable quantity** or an emergency whereby the **health and safety of staff member(s) may be jeopardized**. It is a spill that requires the initiation of the emergency measures. No external help is needed in this situation but a command post may need to be established.

Level 3- A spill that is **above the external reportable quantity** or an emergency where there is **great potential health and safety risks**. There may be casualties. This type of emergency requires internal and (may requir) external intervention. A command post may be set up both onsite and offsite.

<table>
<thead>
<tr>
<th>Level</th>
<th>Is the spill above external report quantity?</th>
<th>Potential Health and Safety Risk</th>
<th>Command Post</th>
<th>External Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No</td>
<td>Low</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Yes</td>
<td>Maybe</td>
<td>Maybe</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Maybe / yes</td>
</tr>
</tbody>
</table>
4.4. Main Response Elements

Find and Identify

Mitigate the source of the spill
Establish Communication System
Collect Information
Isolate the Emergency Scene

Notify

Site supervisors, managers, and employees (according to procedures outlined in this document)
Regulatory bodies and agencies as required (Ministry of Environment, Environment Canada, Provincial Emergency Program), if required.
Soda Creek Indian Band and Williams Lake Indian Band, if required.
Notification to public and media, if required.

Ensure Public Health and Safety Protection

Work with appropriate first responders
Mine Rescue Team and site First aid attendants
Ambulance
Fire Department
Police
Search and Rescue

Environmental Protection

Establish Spill Plan
Manage spill response equipment and resources
Conduct spill material clean up

Terminate the Incident

Complete an incident report
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

4.5. Personnel Responsibilities

**General Manager/Designate:**

- Deploy response crews and equipment operators to undertake the actual cleanup and supervise their work.
- Notifies Corporate, PEP, First Nations groups, and Media.
- Maintain responsibility for the activities at the site of the spill.
- Maintain contact with and co-ordinate work with the Environmental Superintendent.
- Terminates the Incident, conducts brief.

**Environmental Superintendent:**

- Notifies Government Agencies.
- Monitors Environmental Impact.
- Establishes decontamination measures with safety coordinator.
- Update the Spill Contingency Plan as required, for all potentially hazardous materials, accurate names of personnel and phone numbers.
- Plan and co-ordinate required skills.
- Be responsible for assessing new spill hazards as they develop and take preventative actions, whether covered in the manual or not.
- Check and maintain the operating status of required response equipment, which may be required at a spill.
- Train emergency response personnel with respect to their duties, or work with the Safety Department to do so.

**Superintendent of Affected Area:**

- Has authority to direct response operations.
- Needs to clear incident action plan with the General Manager (or designate).
- Determines level of Incident.
- Assigns Command Post if necessary.
- Executes the incident action plan.
- Enforces worker safety and environmental protection.
- Briefs team on specific assignment.

**Communications**

Responsible for the communication and emergency assistance.
Notifies emergency response personnel by telephone or radio in the event of an emergency.
MOUNT POLLEY MINING CORPORATION

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- Assigns scribe
- Records incident details and subsequent developments as they occur.
- Responsible for establishing communication and emergency assistance.
- Establishes external support system (if required)
- Assisting Safety Supervisor.
- Maintains communication contact with the work parties via walkie-talkies, signal horns, or other means

Health and Safety:

- Advises the incident commander on all aspects of health and safety on the site.
- Recommends stopping the work if any of the work operations threaten worker or public safety.
- Ensure proper PPE is used and maintained.
- Controls entry and exit at the access control points.
- Monitors onsite hazards and conditions.
- Enforces the Buddy system.
- Control the decontamination of all equipment, personnel and samples from the contaminated areas.
- Assist In the disposal of contaminated clothing and materials.
- Advise medical personnel of potential exposures and consequences.

4.6. Emergency Response Team Members:

- Consult Appendix G of this manual, to review the site plan relative to building location of the spilled material and specific location of the material within the building/site.
- Consult the appropriate ACTION PLAN contained in this document, to review the properties of the spilled material and recommended response actions.
- If further information is required, contact one of the resource services listed on Page 3 of this document.
- Assess the spill requirements for manpower, equipment, materials, tools and protective gear to contain the spill, in consideration of the resources available.
- Mobilize these resources and take responsibility for implementation of the response actions in the spill site.
- If the spill is too large or complex to be handled entirely by the Company’s resources, call an appropriate group or agency listed on page 3 of this document.
- Contact the Environmental Superintendent to determine what, if any, sampling should be done and to discuss the spill and any environmental implications.
- Once the initial response action is underway, contact the General Manager and designate review the situation and strategy.
Federal and provincial legislation provide for the regulation of an extensive list of products, substances or organisms classified as dangerous. The products fall into one of nine classes:

- Class 1 explosives
- Class 2 gases
- Class 3 flammable liquids
- Class 4 flammable solids, spontaneously combustibles and substances that, on contact with water, emit flammable gases
- Class 5 oxidizing substances and organic peroxides
- Class 6 poisonous (toxic) and infectious substances
• Class 7 radioactive materials

• Class 8 corrosives

• Class 9 miscellaneous products or substances
  - miscellaneous identified dangerous goods
  - certain specified goods considered dangerous to the environment
  - dangerous wastes
## Hazardous Material Response Plan

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<th>Hazardous Materials Checklist</th>
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<tr>
<td>1. Isolate the Area and Deny Entry</td>
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<tr>
<td>- Determine the Hazard Area Involved</td>
</tr>
<tr>
<td>- Establish Control of the Hazard Area</td>
</tr>
<tr>
<td>- Determine Incident Control Zones (Hot, Warm, Cold)</td>
</tr>
<tr>
<td>- Advise All Units of Area to be Isolated</td>
</tr>
<tr>
<td>2. Identify and Verify the Materials Involved</td>
</tr>
<tr>
<td>- Obtain Shipping Papers or Facility Documents (<em>only if safely possible</em>)</td>
</tr>
<tr>
<td>- Write Down All Information Obtained</td>
</tr>
<tr>
<td>- Verify the Source and Accuracy of all Information</td>
</tr>
<tr>
<td>3. Hazard and Risk Assessment</td>
</tr>
<tr>
<td>- Evaluate the Following Concerns</td>
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<td>Health    Physical Properties</td>
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<td>Flammability Chemical Properties</td>
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<td>Reactivity</td>
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<td>- Assess Container Integrity (Stress, Breach, Release, etc.)</td>
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<td>- Determine all Exposures</td>
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<td>- Estimate Likely Harm Without Intervention</td>
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<td>4. Evaluate Protective Clothing and Equipment</td>
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<tr>
<td>- Determine Proper Type and Level of Protective Clothing Required</td>
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</table>

Note: Structural Fire-Fighting Clothing Will Not Provide Protection
5. Coordinate Information and Resources
   - Coordinate Information Between All Branches/Divisions/Groups
   - Conduct Briefing of All Division/Group Officers to Develop Tactical Options
   - Advise Incident Commander of Tactical Options and Recommendations

6. Control, Containment and Confinement
   - Review Tactical Options With Entry Personnel
   - Coordinated All Operations With the Safety Officer
     - Will Decontamination be Required After Entry Operations?
       - Yes Implement Decontamination Procedures Prior to Entry
       - No Continue

7. Decontamination Procedures
   - Decontamination Procedures Determined and Verified
   - Decon Area In Place and Fully Staffed

8. Entry Team Procedures
   - (SOP’s of the department supplying the hazardous materials technicians shall be used for all entries)

9. Termination Procedures
   - Ensure All Personnel Are Briefed as Necessary
   - Signs and Symptoms of Exposure Provided
   - Personnel Exposures Documented
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

Initial Isolation/Protective Action
Hot- Exclusion Zone. Entry Team only
Warm- Decontamination, Properly trained & equipped personnel only
Cold- Staging & Operations
NFPA 704 HazMat* Classification

Health Hazard
4-Deadly
3-Extreme danger
2-Hazardous
1-Slightly hazardous
0-Normal material

Fire Hazard
4-May detonate
3-Shock and heat may detonate
2-Violent Chemical change
1-Unstable if heated
0-Stable

Specific Hazard
Oxidizer OXY
Acid ACID
Alkali ALK
Corrosive COR
Simple Asphyxiant SA
Use NO WATER W
Radiation Hazard

Reactivity
4-May detonate
3-Shock and heat may detonate
2-Violent Chemical change
1-Unstable if heated
0-Stable

Flammability

(*)Not intended to identify non-emergency health hazards)
Hazardous Materials Response Plan

Response Guide by TDG Hazardous Classification

Environmental Canada’s Transportation of Dangerous Goods Act divides hazardous materials into nine major hazard classes. A hazard class is a group of materials that share a common major hazardous property, i.e., radioactivity, flammability, etc. These hazard classes include:

- Class 1-Explosives
- Class 2-Compressed Gases
- Class 3-Flammable Liquids
- Class 4-Flammable Solids
- Class 5-Oxidizers
- Class 6-Poisonous and Infectious Substances
- Class 7-Radioactive Materials
- Class 8-Corrosives
- Class 9-Miscellaneous Hazardous Materials

Notes:
- In some emergency response procedures for TDG hazard classes, a distinction is made between bulk or package quantities. Packing Groups indicate the degree of danger of a product or substance, and are always shown in Roman Numerals: **I great danger, II moderate danger, III minor danger**

  - Class 9, "Miscellaneous Hazardous Materials," refers to those materials that are hazardous but do not meet criteria for inclusion in the aforementioned classes.

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Note: The material presented in this Response Guide has been written in accordance with industry standards. However, this guide cannot anticipate all possible emergency events or situations and emergency responses and therefore cannot be used without the competent review of the emergency response team and plant management. Conditions may develop in operations where standard methods will not suffice and nothing in this guide shall be interpreted as an obstacle to the experience, initiative, and ingenuity of the responders in overcoming the complexities that exist under actual emergency conditions. Responders should use all available resources to determine the appropriate strategies and tactics.
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Class 1: Explosives

Definition

An explosive is any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion, e.g., with a substantial instantaneous release of gas and heat.

General Emergency Response Procedures

1. Identify the material involved.

2. Keep non-essential people away (includes non-essential emergency service personnel).

3. Establish control zones (isolate area and deny entry).

4. Extinguish all sources of ignition in the vicinity. Do not allow vehicles or other sources of ignition in the area.

5. Wear positive pressure SCBA and full protective clothing.

6. Avoid exposure to smoke, fumes, vapors, dust, or direct contact. The combustion products of some propellant explosives are poisonous.

7. Do not allow personnel to touch or move explosives. Explosives should be moved only under the advice and supervision of trained explosive personnel.

8. Contact local police or military bomb units.

9. When a hazmat team is requested to respond to a bomb threat involving hazardous materials, under no circumstances will the hazmat team conduct building or area searches even when hazardous materials are involved. The hazmat team will stage in a safe area, but not less than 200 meters feet from the incident scene.

10. The hazmat team will act as a technical resource for the bomb unit. This may involve the loaning of chemical protective clothing to bomb unit personnel, assistance in dressing, researching chemical data, etc.
1. Do not fight fire in cargo or storage area containing explosives. Withdraw from the area and let the fire burn.

2. If a fire is near explosives, efforts should be taken to prevent the fire from reaching the explosives. For fires involving the motor, cab, or tires of vehicles transporting explosives, flood the area with water.

3. The application of water to burning Class A or B explosives may cause an explosion.

4. Evacuate the area:
   - Class A Explosives – 800 m in all directions.
   - Class B Explosives – 800 m in all directions.
   - Class C Explosives – 450 m in all directions.
   - Blasting Agents- 800 m in all directions.

5. Do not overhaul areas where explosives have burned or exploded.

6. Explosives that have been exposed to heat may be very shock sensitive. Keep all personnel away and do not move these containers.

7. When explosives are involved in fire or serious accidents on the roadways, Canutec (613) 996-6666 should be notified.
Class 2: Flammable Compressed Gases

Definition

A flammable material or mixture having a vapor pressure exceeding 40 psi absolute at 100° F.

General Emergency Response Procedures

1. Identify the material involved.
2. Keep non-essential people away (includes non-essential emergency service personnel.)
3. Establish control zones (isolate area and deny entry).
4. Stay upwind and keep out of low areas.
5. Ventilate confined areas before entering.
6. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for all incidents. In some cases, chemical protective clothing carried by the hazmat team will be required for the safe handling of the incident.
7. Avoid exposure to gas.
8. Since the application of water to pools of liquefied gas will increase the vaporization rate, this is not usually a recommended practice.
9. If a tank truck or tank car is involved in fire, isolate 800 m in all directions.
10. Determine and implement appropriate decontamination procedures for personnel and equipment.
11. Consult CANUTEC (1-613-996-6666) for product information and assistance.

Emergency Response Procedures-Fire

1. Do not extinguish the fire unless the flow of gas can be stopped. The recommended means of extinguishing is to stop the flow.
2. If a leaking tank is involved in fire, cooling the tank with water may reduce the internal pressure and the rate of leakage. If sufficient water is available, use water spray to cool the tanks and adjacent combustibles affected by the heat of the fire. For massive fires, use unmanned monitors. If this is not possible, withdraw from the area and let the fire burn.

3. Un-insulated pressure tanks may rupture violently if there is flame impingement on the vapor space at the top of the tank. If it can be done safely, remove all vehicles or containers not already burning.

4. Let tank, car, tank truck or storage tanks burn unless leak can be stopped.

5. Stay away from the ends of the tank exposed to heat or flame impingement.

6. Observe tanks for evidence of bulging or red hot spots in the metal, and listen for a rising sound from venting safety devices. These indicate that the tank may fail.

Emergency Response Procedures—Spill or Leak

1. Extinguish all sources of ignition in the vicinity (vehicles, traffic light control boxes, machinery, tar pots, etc.).

2. Flammable gases may be heavier or lighter than air. Determine the vapor density of the material from reference sources and use combustible gas detectors to determine the boundary of the gases. Survey the area where the gases are likely to accumulate. Common lighter-than-air flammable gases include:
   - Hydrogen
   - Acetylene
   - Hydrogen cyanide
   - Ammonia
   - Methane
   - Natural Gas
   - Carbon Monoxide
   - Ethylene (ethane)
   - Propane is heavier and will tend to migrate to low laying areas. (Density 1.5)

3. Flammable gases may ignite and flash back to the opening from which the gas originated.

4. Do not allow vehicles or other sources of ignition in the area as long as the combustible gas detector indicates the presence of flammable gases.
5. Do not enter the gas cloud. Be aware that the flammable gases extend beyond any visible cloud.

6. Water spray can be used to absorb water miscible gases, and water spray or explosion proof fans can be used to disperse gas clouds. Do not get water inside containers. Runoff must be contained for later analysis and possible disposal. Do not permit the runoff to enter storm, sewer, or water systems.

7. If it can be done safely, locate all leaks and close valves or otherwise reduce the amount of leakage.

8. If it can be done safely, move undamaged containers to a safe area, being careful to avoid sparks or friction.

9. Post guards and keep spectators at least 800 tm away from leaks from tank cars, tank trucks, or large storage tanks containing compressed gas, liquefied gas, and cryogenics.

10. Wrecking operations or transfer of product should not begin until all the gas is dispersed. Confirmation of gas dispersal should be done with a combustible gas detector.

11. To prevent the build-up of static electricity, bond and ground the containers and equipment before product transfer.

12. Cutting torches or spark generating saws must not be used on the shell of empty or loaded cars or containers.

13. Empty tanks or tanks containing residue should be regarded as containing an ignitable gas-air mixture.
MOUNT POLLEY MINING CORPORATION
Emergency Spill Response Contingency Plan

Class 3: Flammable Liquids

Definition

*A liquid having a flash point below 140° F.*

General Emergency Response Procedures

1. Identify the materials involved.

2. Keep non-essential people away (this includes non-essential emergency service personnel).

3. Establish control zones (isolate area and deny entry).

4. Stay upwind and keep out of low areas.

5. Eliminate ignition sources.

6. Ventilate confined areas before entering.

7. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for all flammable liquid incidents. In some cases, chemical protective clothing carried by the hazmat team will be required for the safe handling of the incident.

8. Avoid exposure to smoke, fumes, vapors, or direct contact.

9. If spilled material has entered storm, sewer, or water systems, notify the proper authority.

   - Maps should be used to determine the direction of flow and destination (outflow) of the system. Consideration should be given to dyking the storm, sewer, or water system ahead of the flow.

   - It may be appropriate to apply foam not only at the spill site, but also into the storm, sewer, or water system.

   - To lessen the chances of ignition, it may be advisable to apply foam ahead of the flowing spill, either into storm drains or manholes down flow from the spill or down flow on the surface of open storm, sewer, or water systems.

10. If a tank truck or tank car is involved in fire, isolate 800 m in all directions.

11. Most flammable liquids float on water. Therefore, the application of water to a spill area may enable the flammable liquid to spread beyond the boundaries of the original incident.
12. The vapors of all flammable liquids are heavier than air. Therefore, in addition to eliminating ignition sources in the immediate spill area, the downwind area and adjacent low areas should be checked for sources of ignition and accumulations of flammable vapors.

13. Consider the need for additional resources and equipment (dyking material, absorbents, foam, over pack, containers, transfer equipment, private cleanup contractors, etc.).

14. Request sufficient foam supplies.

15. Determine and implement appropriate decontamination procedures for personnel and equipment.

16. Consult CANUTEC (1-613 996-6666) for product information and assistance.

**Emergency Response Procedures-Fire**

1. For small fires, use dry chemical, CO2, the appropriate foam or water spray.

2. For large fires use the appropriate foam or water spray. Water may be ineffective on low flash point flammable liquids.

3. If sufficient water is available, use water spray to cool tanks and adjacent combustibles affected by the heat of the fire. For massive fire, use unmanned monitors. If this is not possible, withdraw from the area and let the fire burn.

4. If it can be done safely, remove any vehicles or containers not already burning.

5. Dig trenches or build dikes in the path of the burning liquids to confine the fire and protect exposures.

6. If vapors are burning at the valves, do not extinguish the fire unless re-ignition can be prevented.

7. Observe tanks for evidence of bulging or red hot spots in the metal. Listen for pinging sounds or loud noises from the tank that increases in intensity. Withdraw immediately in case or rising sound from venting safety device or discoloration of tank. These indicate that the tank may fail.

8. Do not puncture or rupture the shell of a transport vehicle involved in a fire as this may liberate more flammable liquid and extend the fire.
9. If safety relief valves are obstructed, try to reposition the tank to allow the valves to function properly, but only if this can be done safely.
1. Extinguish or eliminate all sources of ignition in the vicinity (traffic light control boxes, machinery, vehicles, tar pots, etc.). Use combustible gas detectors to determine the boundaries of the vapors.

2. Do not allow vehicles or other sources of ignition in the area as long as the combustible gas detector indicated the presence or flammable vapors.

3. Keep oxidizing materials away from spilled flammable liquids.

4. Post guards and keep spectators at least 800 m away for leaks from tank cars, tank trucks or large storage containers.

5. Dig trenches or build dikes ahead of the flow to confine the spill for later disposal or recovery.

6. Do not allow flammable liquids to enter storm, sewer, or water systems.

7. Cover flammable liquids with appropriate foam to blanket the surface and reduce the rate of evaporation. When ambient temperatures are less than 100° F, combustible liquids will usually not require blanketing to reduce vapors. Do not permit the runoff to enter storm, sewer, or water systems.

8. Water spray can be used to absorb water miscible vapors, and water spray or explosion-proof fans can be used to disperse vapors. Do not get water inside containers. Runoff must be contained for later analysis and possible disposal. Do not permit the runoff to enter storm, sewer, or water systems.

9. If it can be done safely, attempt to close valves or otherwise reduce the amount of leakage.

10. Since most flammable liquids float, for leaks near the bottom of the tank, water may be added to the tank to float the flammable liquid if the leak cannot be controlled or stopped. The water flow can be adjusted so that only water leaks out and the flammable liquid does not overflow the tank. This will provide time to offload the remaining flammable liquid.

11. Wrecking operations or transfer of product should not begin until the area is determined safe. A combustible gas detector should be used to check the area continually during the entire operation.
12. To prevent the buildup of static electricity, bond and ground containers and equipment before product transfer.

13. Empty tanks and tanks containing residue should be regarded as containing an ignitable vapor-air mixture.

14. Cutting torches or spark generating saws must not be used on the shell of empty or loaded cars or containers.

15. If it can be done safely, move undamaged containers to a safe area, being careful to avoid sparks or friction.

16. Do not separate tractor units from their trailer, as the support gear on the trailer may fail.
Class 4: Flammable Solids

Definition
Any solid material, other than an explosive, which under conditions normally incident to transportation is likely to cause fires through friction or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently it creates a serious transportation hazard.

Included in this class are spontaneously combustible and water reactive materials. Two materials shipped in bulk that can cause major problems for responders are phosphorous and sodium.

General Emergency Response Procedures

1. Identify the materials involved.

2. Keep non-essential people away (this includes non-essential emergency service personnel).

3. Establish control zones (isolate area and deny entry).

4. Stay upwind and keep out of low areas.

5. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for all incidents. In some cases, chemical protective clothing carried by the hazmat team will be required for the safe handling of the incident.

6. Avoid exposure to smoke, fumes, vapors, or direct contact. Toxic products may be produced from contact with water, heat, and other substances.

7. Consider the need for additional resources and equipment (dyking material, absorbents, foam, over pack containers, transfer equipment, private cleanup contractors, etc.).

8. If spilled material has entered storm or sewer systems, notify the proper authority.

9. Determine and implement appropriate decontamination procedures for personnel and equipment.

10. Consult CANUTEC (1-613 996-6666) for product information and assistance.

Emergency Response Procedures-Fire
1. Do not use water or foam on water-reactive materials.

2. If it can be done safely, remove containers from fire area.

3. Chemical reference sources will indicate appropriate extinguishing agents. Agents such as dry chemical, soda ash, lime, or sand may be appropriate for use on water-reactive materials, but they must be moisture-free.

4. Water may be used to cool containers exposed to fire, but if the water contacts water-reactive materials, the incident could escalate rapidly.

**Emergency Response Procedures-Spill or Leak**

1. Keep ignition sources away.

2. Extinguish all sources of ignition in the vicinity. Do not allow vehicles or other sources of ignition in the area.

3. If it can be done safely, attempt to close valves, plug, reposition containers, or otherwise reduce the amount of leakage.

4. Keep water-reactive materials dry and do not get water inside containers containing water-reactive materials.

5. Keep material out of storm, sewer, and water systems.

6. Dig trenches or build dikes around spills of water-reactive or environmentally damaging materials to prevent water from reaching them.

7. Powder spills can be covered with a plastic sheet or tarp to minimize spreading and prevent water/moisture contact. 
   
   *Warning: If the sun is shining directly on the plastic sheeting, moisture may collect on the underside of the sheeting, producing a reaction with water reactive materials.*
Class 5: Oxidizers and Organic Peroxides

Definition
An oxidizer is a substance that yields oxygen readily to stimulate the combustion of other material.

Organic peroxide is an organic derivative of the inorganic compound hydrogen peroxide where organic radicals have replaced one or more of the hydrogen atoms. Organic peroxides readily release oxygen to stimulate the combustion of other materials.

General Emergency Response Procedures

1. Identify the materials involved.
2. Keep non-essential people away (this includes non-essential emergency service personnel).
3. Establish control zones (isolate area and deny entry).
4. Stay upwind and keep out of low areas.
5. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for all incidents. In some cases, chemical protective clothing carried by the hazmat team will be required for the safe handling of the incident.
6. Ventilate confined areas before entering.
7. Avoid exposure to smoke, fumes, dust, vapors, or direct contact. Burning oxidizers frequently produces toxic products.
8. Caution should be exercised when water is used on oxidizers, as most oxidizers are water-soluble and will produce solutions that can impregnate wood and other organic combustibles. Upon drying, these materials can spontaneously ignite and burn vigorously.
9. In accidents involving chlorates and other oxidizing materials, care is necessary to prevent ignition by friction or contact with acids.
10. When chlorates are mixed with organic matter, or even dust, a flammable mixture is formed.
11. Chlorates mixed with finely divided combustible material may burn with explosive violence.

12. Leaking of nitric acid, perchloric acid, or hydrogen peroxide may cause fire. These materials are also corrosive.

13. Organic peroxides generally have the special property that if they are heated beyond their transportation temperatures; they are likely to detonate.

14. Consider the need for additional resources and equipment (dyking materials, absorbents, foam, over pack containers, transfer equipment, private cleanup contractors, etc.)

15. If spilled material has entered storm or sewer systems, notify the proper authority.

16. Determine and implement appropriate decontamination procedures for personnel and equipment.

17. Consult CANUTEC (1-613-996-6666) for product information and assistance.

**Emergency Response Procedures-Fire**

1. If it can be done safely, remove any containers not already burning.

2. Cool affected containers with flooding quantities of water. For massive fires, use unmanned monitors. If this is not possible, withdraw and let the fire burn. Runoff water must be contained for later analysis and proper disposal.

**Emergency Response Procedures-Spill or Leak**

1. Keep flammables, combustibles and organic materials away from spilled material.

2. Avoid contact with spilled material.

3. Extinguish all sources of ignition in the vicinity. Do not allow vehicles or other sources of ignition in the area.

4. If it can be done safely, attempt to close valves, plug, or otherwise reduce the amount of leakage.

5. Water spray can be used to absorb water miscible vapors, and water spray or explosion-proof fans can be used to disperse vapors. Do not get water inside containers. Runoff must be contained for later analysis and possible disposal. Do not permit the runoff to enter storm, sewer, or water systems.
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6. Keep material out of storm, sewer, and water systems.

7. Dig trenches or build dikes ahead of the flow to contain the spill for later disposal.

8. Powder spills can be covered with a plastic sheet or tarp to minimize spreading.
Class 6: Pesticides and Poisons

Definition

Pesticides are chemical agents used to destroy pests. Poisons are substances that, through chemical action, usually kill, injure, or impair an organism.

General Emergency Response Procedures

1. Identify the materials involved.

2. Keep non-essential people away (this includes non-essential emergency personnel).

3. Establish control zones (isolate area and deny entry).

4. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for all incidents.

   - Due to the construction and materials used for firefighter turnout clothing, the clothing may actually absorb and hold the pesticide or poison if contact with the smoke, fumes, dust, vapors, or material occurs. The firefighter would be re-exposed each time the clothing were worn if proper decontamination operations were not performed.

   - In most incidents involving pesticides or poisons, the chemical protective clothing carried on the hazmat team will be required for safe handling of the incident.

5. Stay upwind and keep out of low area. If you can smell pesticide, you are too close and not sufficiently protected.

6. Avoid exposure to smoke, fumes, vapors, dust or direct contact.

7. Determine signs and symptoms of exposure and advise all personnel operating at the site. Some symptoms may not become present for up to 48 hours following exposure.

8. Ventilate confined areas before entering. It is not advisable for fire personnel to enter tanks or other confined spaces that contain or have contained pesticides and/or poisons.

9. If spilled material has entered storm, sewer, or water systems, notify the proper authority. Maps should be used to determine the direction of flow and destination (outflow) of the system. Consideration should be given to dyking ahead of the flow.
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10. Determine and implement appropriate decontamination procedures for personnel and equipment.

11. Flush any contacted material from skin or clothing immediately.

12. Remove and isolate any contaminated clothing at the site and avoid spreading contamination to non-contaminated areas.

13. Consult CANUTEC (1-416-996-6666) for product information and assistance.

Emergency Response Procedures-Fire

1. Consider protecting exposures and allow the fire to burn. This may create less of a hazard to people and the environment, especially if runoff cannot be confined.

2. For small fires, use dry chemical, CO2, water spray or the appropriate foam.

3. For large fires use the appropriate foam or water spray.

4. Do not extinguish fire unless the flow can be stopped.

5. If sufficient water is available, use water spray to cool containers exposed to the fire.

6. Dike fire control water for later analysis and/or disposal.

Emergency Response Procedures-Spill or Leak

1. For a liquid pesticide spill, extinguish or eliminate all sources of ignition in the vicinity as many pesticides have flammable liquids as the carrier of the poison. Use combustible gas detectors to determine the boundary of the vapors if the pesticide is a flammable.

2. Do not allow vehicles or other sources of ignition in the area as long as the combustible gas detector indicates the presence of flammable vapors.

3. If it can be done safely, attempt to close valves, plug, or otherwise reduce the amount of leakage.
4. Water spray can be used to absorb water miscible vapors, and water spray or explosion-proof fans can be used to disperse vapors. Do not get water inside containers. Runoff must be contained for later analysis and possible disposal. Do not permit the runoff to enter storm, sewer or water systems.

5. Keep material out of storm, sewer, and water systems.

6. Dig trenches or build dikes ahead of the flow to confine the spill for later disposal or recovery.

7. Powder spills can be covered with a plastic sheet or tarp to minimize spreading.
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Class 6: Infectious Substances

Definition

*Substances or materials hosting or contaminated by communicable pathogens. Examples include medical waste, laboratory samples, etc.*

General Emergency Response Procedures

1. Identify the materials involved. Infectious substances include the red infectious waste bags and "sharps" containers from hospitals (sharps containers are used for the disposal of needles and other sharp instruments). Caution should be used if these containers are encountered.

2. Keep non-essential people away (this includes non-essential emergency service personnel).

3. Establish control zones (isolate area and deny entry).

4. Wear positive pressure SCBA and chemical protective clothing. Firefighter protective clothing will not provide adequate protection for all incidents involving infectious substances. The chemical protective clothing carried on the hazmat team may be required for safe handling of the incident.

5. Stay upwind and keep out of low areas.

6. Avoid exposure to smoke, fumes, vapors, or dust. Do not contact damaged containers or spilled material. Virus and disease-bearing substances are often present.

7. If leakage is discovered in transit, the vehicle must not be moved and the area must be isolated.

8. If spilled material has entered storm or sewer systems, notify the proper authority.

9. Implement appropriate decontamination procedures. A freshly mixed 10% or stronger bleach/water solution is an effective decontamination solution for most infectious substance exposures.

Emergency Response Procedures-Fire

1. If it can be done safely, remove containers from the fire area. Do not touch or move damaged containers.
2. Use dry chemical, soda ash, or lime for small fires.

Emergency Response Procedures—Spill or Leak

1. Cover damaged containers or spill area with dampened towel or rag, and keep wet with liquid bleach.
   
   • To decontaminate the area and equipment, a garden sprayer with a 10% bleach/water solution can used to spray exposed surfaces.
   
   • Recently mixed bleach/water solutions should be used, as premixed solutions lose their strength after a few days.

2. Dike spills for later disposal.

3. Keep material out of storm, sewer and water systems.
Class 7: Radioactive Materials

Definition

Radioactive materials contain charged particles (ions) and have a specific gravity greater than 0.002 microcuries per gram. These charged particles may cause damage to molecules, cells, or tissues. Atoms that emit ionizing radiation are said to be radioactive; radioactivity is the process whereby atomic changes, known as decay or disintegration, occur through the emission of ionizing radiation.

General Emergency Response Procedures

1. Identify the materials involved. Radioactive materials are often shipped in lead containers.

2. Keep people as far away as practical, at least 50 m upwind.

3. Establish control zones (isolate area and deny entry). Use radiation-monitoring devices to determine control zones and assess areas for contamination.

4. Wear positive pressure SCBA and full protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for radioactive incidents.

5. Avoid exposure to smoke, fumes, vapors, dusts or direct contact.

6. All personnel should utilize dosimeters. Zero dosimeters prior to use.

7. Entry should not be made until appropriate radiological personnel are on scene and the degree of radiation is known.

8. Enter Exclusion Zone only to save a life, and limit entry into the Exclusion Zone to the shortest possible time.

9. If spilled material has entered storm, sewer, or water systems, notify the proper authority.

10. Implement appropriate decontamination procedures for personnel and equipment.

11. Delay clean up until arrival or instructions of qualified radiation personnel.

12. Equipment used in the Exclusion Zone shall not be removed until appropriate decontamination procedures have been performed and the equipment has been monitored and declared clean.
13. Contact a radiological team for assistance and equipment.

14. Consult CANUTEC (1-613-996-6666) for product information and assistance.

**Emergency Response Procedures-Fire**

1. Do not move-damaged containers, but undamaged containers should be moved to a safe area if it can be done safely.

2. Assume the fire involves radioactive materials.

3. Avoid exposure to smoke, fumes, or dust. Airborne contamination is a great cause of concern for emergency responders. Stay upwind from the fire area.

4. Evacuate downwind area.

5. The fire should be extinguished as quickly as possible, with a minimum amount of water. Try not to disturb the radioactive containers.

6. Fight fire from a maximum distance. Do not allow personnel into the area after fire knockdown.

7. For massive fires, use unmanned monitors.

8. Dig trenches or build dikes ahead of the flow to contain the spill for later disposal.

9. The fire area should not be overhead.

**Emergency Response Procedures-Spill or Leak**

1. Do not touch damaged containers or contact the spilled material.

2. Prevent spread of spilled material and keep it out of water systems and sewers. Dike far ahead of large spills to confine the material for later disposal.
Class 8: Corrosives

Definition
Any liquid or solid, including powders, that can destroy tissue, or a liquid that has a severe corrosion rate on steel or aluminum.

General Emergency Response Procedures

1. Identify the materials involved.

2. Keep non-essential people away (this includes non-essential emergency service personnel).

3. Establish control zones (isolate area and deny entry).

4. Wear positive pressure SCBA and chemical protective clothing. This is a minimum level of protective clothing and will not provide adequate protection for corrosive incidents. The chemical protective clothing carried by the hazmat team may be required for the safe handling of most incidents involving corrosives.

5. Stay upwind and keep out of low areas.

6. Avoid exposure to smoke, fumes, vapors, dusts, or direct contact. Highly toxic fumes are often present.

7. Ventilate confined areas before entering.

8. Consider the need for additional resources and equipment (dyking material, absorbents, over pack containers, transfer equipment, private cleanup contractors, etc.).

9. If spilled material has entered storm or sewer systems, notify the proper authority.

10. Determine and implement appropriate decontamination procedures for personnel and equipment.

11. Consult CANUTEC (1-613-996-6666) for product information and assistance.

Emergency Response Procedures-Fire

1. Many corrosive chemicals react violently with water, liberating heat and toxic gases.

2. If it can be done safely, remove undamaged containers from the fire area.

3. Do not get water inside the container.
4. Use water to cool containers that are exposed to flame until well after the fire is out. Do not allow water to get inside container.

**Emergency Response Procedures-Spill or Leak**

1. Avoid contact with spilled material.

2. Extinguish all sources of ignition in the vicinity. Do not allow vehicles or other sources of ignition into the area.

3. Do not apply water unless directed to do so. Contact with water may cause the generation of large quantities of vapors and heat.

4. Do not get water inside the container.

5. Water spray can be used to absorb water miscible vapors, and water spray or explosion-proof fans can be used to disperse vapors. Do not get water inside containers and do not put water on leak or spill area. Runoff must be contained for later analysis and possible disposal. Do not permit the runoff to enter storm, sewer, or water systems.

6. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

7. If it can be done safely, attempt to close valves, plug, or otherwise reduce the amount of leakage.

8. Dig trenches or build dikes ahead of the flow to contain the spill for later disposal or recovery.

9. Powder spills can be covered with a plastic sheet or tarp to minimize spreading.

10. Keep material out of storm, sewer, or water systems.

11. Do not attempt neutralization. Neutralization may cause the production of vapors and heat, creating additional problems.

12. Do not attempt dilution. The quantity of water required to dilute one gallon of concentrated acid to a neutral pH of 7 is in the hundreds of thousands of gallons.
Specific Action Plan

LIME:

PROPERTIES:
White powder to granular.
Very alkaline; very corrosive to eye surfaces.
Effects of acute exposure - corrosive.
Effects of chronic exposure are burns, ulceration, and blindness.

ACTION STEPS:
Report spill.
Stop source if possible.
Contain spill materials.
Protect area.
Remove material.
Reclaim area.
Complete spill report.

NOTIFICATION:
Immediately notify the Area Supervisor.

INITIAL SPILL RESPONSE:
Stop spill at source, if possible.
Avoid dusting.
Keep spilled lime dry.
Prevent from entering watercourses.
If mixed with water, dyke and contain the milk of lime.

HAZARDS and ENVIRONMENTAL THREATS:
Heat generated when mixed with water.
Strong alkaline - protect self from exposure, especially eyes.
No environmental hazard.

ACTION FOR FIRE:
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

Shovel and contain dry material in containers. Dyke and contain milk of lime and pump into proper mill circuit.

**DISPOSAL:**

Dispose of recovered solids by recycling material through the crushing circuit to the mill process.
Specific Action Plan

TAILINGS OR CONCENTRATES

PROPERTIES:
Maybe toxic when ingested and or the fumes, if any, are inhaled from residual milling components.

HAZARDS and ENVIRONMENTAL THREATS:
Will cover and kill vegetation.
May exhibit ARD properties overtime.

ACTION STEPS:
Report spill.
Stop source, if possible.
Contain spill, if possible.
Protect area.

NOTIFICATION:
Immediately notify your Area Supervisor.

INITIAL SPILL RESPONSE:
Stop the flow, if possible.
Prevent spills from entering watercourses
Contain spilled liquid using sand, straw, or commercial absorbents.
If raining cover with tarps

ACTION FOR FIRE:
Slightly flammable

RECOVERY:
Pump or scoop up material.
If necessary, contaminated soil should be excavated.

DISPOSAL:
Recovered spilled materials and contaminated soils should be disposed of in the tailing storage facility.
Specific Action Plan

MINE INFLUENCED WATER
(NOT RELATED TO HAZELTINE CREEK DISCHARGE SYSTEM)

PROPERTIES:
Water that has been affected by mining or mineral processing and may contain elevated levels of metals, suspended solids, reagents, and other parameters, or a pH outside of the natural range.

HAZARDS and ENVIRONMENTAL THREATS:
May have a detrimental effect on aquatic or terrestrial environments and organisms. May cause erosion and deposition of sediment (on land or in creeks).

ACTION STEPS:
Report spill.
Stop source, if possible.
Contain spill, if possible.
Protect area.

NOTIFICATION:
Immediately notify your Area Supervisor and the Environmental Superintendent.

INITIAL SPILL RESPONSE:
Stop the release using water diversions or pumps, or contain water using berms or sumps.
Prevent spills from entering watercourses.
If watercourses are affected, conduct full suite and in situ sampling upstream and downstream of the release point.
Use sediment and erosion control methods including, but not limited to, straw, sediment fence, and geotextiles and retention ponds to minimize erosion and limit sediment transport by water.

RECOVERY:
Pump any water out of emergency sumps or water storage facilities.
Re-vegetate any eroded areas.
Review root causes of the release, and implement changes to prevent a re-occurrence.
Specific Action Plan

MINE INFLUENCED WATER
(RELATED TO HAZELTINE CREEK DISCHARGE SYSTEM)

PROPERTIES:
Water that has been affected by mining or mineral processing and may contain elevated levels of metals, suspended solids, reagents, and other parameters, or a pH outside of the natural range.

HAZARDS and ENVIRONMENTAL THREATS:
May have a detrimental effect on aquatic or terrestrial environments and organisms. May cause erosion and deposition of sediment in the creek and alter creek morphology.

SYSTEM SPILL PREVENTION MECHANISMS:
In the event that trigger thresholds for conductivity, temperature or flow are exceeded in continuous monitoring of the discharge effluent, a warning will be issued to the Mill Control Room immediately through the Man Machine Interface, and the Environmental Department will be notified. These trigger levels (set below permitted allowable levels) allow for the discharge system to be shut off or discharge rates reduced before any guidelines are exceeded.
Pump failure triggers an automatic “shut off”, and water storage tanks have automatic (and manual) overflow systems that drain water into existing effluent storage facilities.

NOTIFICATION:
Immediately notify the Environmental Superintendent.
In addition to regulatory notifications required for releases of mine influenced water, the Ministry of Environment must be notified of discharge guideline exceedances and Environment Canada must be notified (as outlined in Mount Polley Mining Corp.’s Annual Discharge Plan, PE-11678, and the Metal Mining Effluent Regulations).

INITIAL SPILL RESPONSE:
Immediately stop effluent discharge using the manual shut off valves (and tank drains if necessary). If the release is due to physical damage to the discharge line, if possible, stop the release using water diversions, berms, sumps or pumps to prevent water from entering watercourses, and use sediment and erosion control materials and methods, such as straw, sediment fence, geotextiles, and retention ponds to minimize erosion and limit sediment transport by water.
If watercourses are affected, conduct full suite and in situ sampling upstream and downstream of the release point.

RECOVERY:
Pump any water out of emergency sumps or water storage facilities.
Re-vegetate any eroded areas.
Review root causes of the release, and implement changes to prevent a re-occurrence.
Specific Action Plan

RELEASE OF TILL/MUD/SOIL/ROCK

PROPERTIES:
Any form of rock, soil, or till, including mud and suspended till.

HAZARDS and ENVIRONMENTAL THREATS:
May cause deposition or morphological changes to watercourses and increase turbidity. May disturb vegetated areas and promote erosion. May have a detrimental effect on terrestrial or aquatic environments and organisms. Large transfers of material may be hazardous for humans.

ACTION STEPS:
Report incident.
Stop source, if possible and if area is safe.
Contain material, if possible and if area is safe.
Protect area.

NOTIFICATION:
Immediately notify your Area Supervisor and the Environmental Superintendent.

INITIAL RESPONSE:
Stop the release using methods including berms or containment sumps.
Take action to protect any infrastructure or prevent further incidents (example: shut off water in dewatering pipelines that may be affected).
Prevent material from entering watercourses.
If watercourses are affected, conduct full suite and in situ sampling upstream and downstream of the release point.
Use sediment and erosion control methods including, but not limited to, straw, sediment fence, and geotextiles and retention ponds to minimize erosion and limit sediment transport by water.

RECOVERY:
Move material, as possible and as required (example: away from infrastructure).
Install long-term sediment and erosion control works, including re-vegetation of any eroded areas.
Restore aquatic habitats, as required.
Review root causes of the release, and implement changes to prevent a re-occurrence.
APPENDIX C

Protocol for Corporate Reporting of an Environmental Incident
A) Protocol for Corporate Reporting of an Environmental Incident:

1) Corporate reporting of an “environmental incident” is required when:

(a) Any environmental incident occurs that:
   • Poses a serious or imminent threat to human health or to the environment.
   • Precipitates an immediate, external reporting requirement to regulatory authorities.
   • Requires a minimum expenditure of $Cdn25,000 in materials and/or offsite technical or legal support.
   • Is subject of an inquiry from the media.

(b) Any environmental event occurs when:
   • An administrative or judicial enforcement action is taken.
   • A notice of a citizen suit or other significant complaint from the public is received.
   • A private lawsuit premised on personal injury or property damage is filed.
   • A civil or criminal action is taken against any Mount Polley Mining Corp. employee, manager, officer or Director.

2) Protocol for Report

(a) The Environmental Superintendent will immediately notify the General Manager (or his designate).

(b) The general manager will notify the Company President. (CP)

(c) Consultation with the general manager will determine the extent of legal counsel involvement.

(d) The Environmental Superintendent will prepare a “Preliminary Draft Incident Report for the General Manager to authorize and fax as soon as possible to the CP. The “Final Incident Report” will be submitted once the investigation of the incident is complete.

B) Protocol for Communicating Environmental Issue

1) Corporate communication of an “environmental issue” is required when:
(a) A situation arises or an event occurs that has, in the opinion of the Environmental Superintendent, the potential to become an Environmental Incident as defined above.

2) Protocol for Communicating and Environmental Issue.
(a) When an issue becomes apparent, the environmental superintendent will inform the general manager.
(b) Actions plans to mitigate a possible incident will be developed and approved by the General Manager.
(c) The general manager will keep the CP informed of any issues with the potential to become “Incidents”.
## PRELIMINARY INCIDENT REPORT

Mount Polley Mining Corporation  
Environmental Incident Report

<table>
<thead>
<tr>
<th>Date of Incident:</th>
<th>Date Incident Reported:</th>
</tr>
</thead>
</table>

**Incident:**  

<table>
<thead>
<tr>
<th>Department:</th>
<th>Supervisor:</th>
</tr>
</thead>
</table>

**DESCRIPTION OF INCIDENT:** (include detailed timeline of events)

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Time</th>
<th>Time</th>
<th>Time</th>
<th>Time</th>
</tr>
</thead>
</table>

Include figures as required.
Maps
photos

**NEXT STEPS:**
- Internal Root Cause Analysis
- Environmental Assessment and Monitoring
  - Review of required monitoring
- Long Term Mitigation
  - If required.

**Signature of Area Supervisor:**  

_____________________________

**Copies:** Include names of all recipients of report
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

APPENDIX E

Reportable Levels for Certain Substances
## Reportable Levels for Certain Substances

<table>
<thead>
<tr>
<th>Item</th>
<th>Substance spilled</th>
<th>Specified amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ammonium Nitrate</td>
<td>Any quantity that could pose a danger to public safety or 50 kg</td>
</tr>
<tr>
<td>2</td>
<td>PCB Wastes</td>
<td>10 kg</td>
</tr>
<tr>
<td>4</td>
<td>Propane</td>
<td>10 kg</td>
</tr>
<tr>
<td>3</td>
<td>Non-Flammable and Non-Toxic Gases</td>
<td>10 kg</td>
</tr>
<tr>
<td>5</td>
<td>Gasoline, MIBC, Diesel</td>
<td>100 L</td>
</tr>
<tr>
<td>6</td>
<td>Flammable Solids</td>
<td>25 kg</td>
</tr>
<tr>
<td>7</td>
<td>NaHS</td>
<td>50 kg or 50 L</td>
</tr>
<tr>
<td>8</td>
<td>Organic Peroxides</td>
<td>1 kg or 1 L</td>
</tr>
<tr>
<td>9</td>
<td>Toxic Substances</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td>10</td>
<td>Infectious Substances</td>
<td>1 kg or 1 L, or less if the waste poses a danger to public safety or the environment</td>
</tr>
<tr>
<td>11</td>
<td>Radioactive Materials</td>
<td>Any quantity that could pose a danger to public safety and an emission level greater than the emission level established in section 20 of the &quot;Packaging and Transport of Nuclear Substances Regulations&quot;</td>
</tr>
<tr>
<td>12</td>
<td>Acids</td>
<td>5 kg or 5 L</td>
</tr>
</tbody>
</table>
## Appendix E: Reportable Levels for Certain Substances

<table>
<thead>
<tr>
<th>13</th>
<th>Class 9, Miscellaneous Products, Substances or Organisms as defined in section 2.43 of the Federal Regulations</th>
<th>25 kg or 25 L</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>waste containing dioxin as defined in section 1 of the Hazardous Waste Regulation</td>
<td>1 kg or 1 L, or less if the waste poses a danger to public safety or the environment</td>
</tr>
<tr>
<td>15</td>
<td>leachable toxic waste as defined in section 1 of the Hazardous Waste Regulation</td>
<td>25 kg or 25 L</td>
</tr>
<tr>
<td>16</td>
<td>waste containing polycyclic aromatic hydrocarbons as defined in section 1 of the Hazardous Waste Regulation</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td>17</td>
<td>waste asbestos as defined in section 1 of the Hazardous Waste Regulation</td>
<td>50 kg</td>
</tr>
<tr>
<td>18</td>
<td>Waste Oil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>waste oil as defined in section 1 of the Hazardous Waste Regulation</td>
<td>100 L</td>
</tr>
<tr>
<td>19</td>
<td>waste containing a pest control product as defined in section 1 of the Hazardous Waste Regulation</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td>20</td>
<td>PCB Wastes as defined in section 1 of the Hazardous Waste Regulation</td>
<td>25 kg or 25 L</td>
</tr>
<tr>
<td>21</td>
<td>waste containing tetrachloroethylene as defined in section 1 of the Hazardous Waste Regulation</td>
<td>50 kg or 50 L</td>
</tr>
<tr>
<td>22</td>
<td>biomedical waste as defined in section 1 of the Hazardous Waste Regulation</td>
<td>1 kg or 1 L, or less if the waste poses a danger to public safety or the environment</td>
</tr>
<tr>
<td>23</td>
<td>Concentrate, Tailings, Lime</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A hazardous waste as defined in section 1 of the Hazardous Waste Regulation and not covered under items 1 – 22</td>
<td>25 kg or 25 L</td>
</tr>
<tr>
<td>24</td>
<td>A substance, not covered by items 1 to 23, that can cause pollution</td>
<td>200 kg or 200 L</td>
</tr>
<tr>
<td>25</td>
<td>Natural gas</td>
<td>10 kg, if there is a breakage in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas</td>
</tr>
</tbody>
</table>

Note: Information about deleterious substances specific to mine discharge are included in Appendix H.
Appendix F

Mount Polley Mine
Hazeltine Discharge
Emergency Response Plan
Specific to Section 30 of the MMER

April 11, 2013
MOUNT POLLEY MINING CORPORATION

Emergency Spill Response Contingency Plan

Definitions

MTD – Main Toe Drain
ERP – Emergency Response Plan
MMER – Metal Mining Effluent Regulations
TSS – Total Suspended Solids
MPMC – Mount Polley Mining Corporation

Background Information

The Metal Mining Effluent Regulations (MMER) under the Fisheries Act require that “The owner or operator of a mine shall prepare an emergency response plan that describes the measures to be taken in respect of a deleterious substance within the meaning of subsection 34(1) of the Act to prevent any deposit out of the normal course of events of such a substance or to mitigate the effects of such a deposit.”

Table 1 below identifies the deleterious substances referred to in this section. This plan pertains specifically to Mount Polley Mining Corporations’ (MPMC’s) Hazeltine Discharge System and its components.

All sampling as referred to in this Emergency Response Plan refers to the Main Toe Drain (MTD).

a) Identification of a deposit

Within the design parameters of the Hazeltine Discharge System, it is unlikely that any deposit outside the normal course of events will occur. This system is a closed system, conducting water directly from the MTD, through a series of pipes and two tanks to the environment. The MTD maximum flow is estimated at 0.5 m3/s.

<table>
<thead>
<tr>
<th>Deleterious Substances/Parameters</th>
<th>MAX Monthly Mean</th>
<th>MAX Composite Sample</th>
<th>MAX Grab Sample</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Once/week at least 24 hours apart</td>
</tr>
<tr>
<td>MPMC</td>
<td>MPMC</td>
<td>MTD</td>
<td>MTD</td>
<td>Mean</td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.50 mg/l</td>
<td>0.75 mg/l</td>
<td>1.00 mg/l</td>
<td>0.002196</td>
</tr>
<tr>
<td>Copper</td>
<td>0.30 mg/l</td>
<td>0.45 mg/l</td>
<td>0.60 mg/l</td>
<td>0.0431795</td>
</tr>
<tr>
<td>Cyanide¹</td>
<td>1.00 mg/l</td>
<td>1.50 mg/l</td>
<td>2.00 mg/l</td>
<td>n/a</td>
</tr>
<tr>
<td>Lead</td>
<td>0.20 mg/l</td>
<td>0.30 mg/l</td>
<td>0.40 mg/l</td>
<td>0.000272</td>
</tr>
<tr>
<td>Nickel</td>
<td>0.50 mg/l</td>
<td>0.75 mg/l</td>
<td>1.00 mg/l</td>
<td>0.00083</td>
</tr>
<tr>
<td>Zinc</td>
<td>0.50 mg/l</td>
<td>0.75 mg/l</td>
<td>1.00 mg/l</td>
<td>0.0061</td>
</tr>
<tr>
<td>Total Suspended Solids</td>
<td>15.00 mg/l</td>
<td>22.50 mg/l</td>
<td>30.00 mg/l</td>
<td>4.172</td>
</tr>
<tr>
<td>Radium 226²</td>
<td>0.37 Bq/l</td>
<td>0.74 Bq/l</td>
<td>1.11 Bq/l</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Appendix F: Hazeltine Creek Discharge Emergency Response Plan

68
Arsenic
All Total Arsenic levels recorded at MTD are well below the authorized limits.

Copper
The maximum and the mean values for Total Copper at the MTD are below limits outlined in Table 1.

Lead
All Total Lead levels recorded at MTD are well below the authorized limits.

Nickel
All Total Nickel levels recorded at MTD are well below the authorized limits.

Zinc
All Total Zinc levels recorded at MTD are well below the authorized limits.

Radium 226
No testing for Radium 226 has been conducted to date. Testing for Radium 226 will coincide with next scheduled sample and will be ongoing. This parameter will be monitored closely during the 2013 discharge season.

TSS
The elevated TSS levels at MTD in Table 1 were deemed to be a sampling error. Debris can collect in the manhole and piping where the sample is taken and the samples are not filtered. Of 22 samples taken since April 2010, 3 were above MDL, or 13.6% of the samples. Steps are being taken to minimize sampling error in the future.

Risk
There is no reason to expect that any deposit to Hazeltine Creek will occur other than that which is planned. With the exception of the unknown Radium 226 levels, the effluent planned for discharge does not present any of the deleterious substances listed above in elevated levels that would be expected to damage or endanger fish habitat. This parameter will be monitored closely in 2013, however Radium 226 is primarily a concern at uranium mines, and it is unexpected that detrimental levels of this parameter will be observed.

b) Prevention
Measures to be used to prevent, prepare for, and respond to a deleterious deposit are described in the following sections.

Prevent
The installation of continuous monitoring for conductivity, temperature, and flow will provide MPMC with immediate notification of changes in the discharge. In the event that trigger thresholds for conductivity, temperature or flow are exceeded in continuous monitoring of the discharge effluent, a warning will be issued to the Mill Control Room immediately through the Man Machine Interface, and the Environmental Department will be notified. These trigger levels (set below permit allowable levels) allow for the discharge system to be shut off or for discharge rates to be reduced before any guidelines are exceeded. Pump failure triggers an automatic “shut off”, and water storage tanks have automatic (and manual) overflow systems that drain water into existing effluent storage facilities.

Prepare
Implementation of the monitoring plan outlined in the MMER which includes weekly grab samples

Respond

In the event of an unexpected deposit, the system will be manually shut down, and monitoring will be conducted to characterize the deposit and identify its extent.

As per MMER Section 14 (1), acute lethality testing will be completed without delay. A written report meeting the requirements outlined in MMER Section 31 (2) will be submitted within 30 days, as required under MMER Section 31 (2). If the effluent is determined to be acutely lethal, the effluent water quality samples will be characterized without delay and additional acute lethality sampling will be conducted as required under MMER Section 15.

Water quality samples will be taken of the effluent and downstream receiving environment to estimate loading of deleterious substances. As required under MMER Section 24 (1-2), the Inspector will be notified, without delay, if effluent monitoring guidelines in MMER Schedule 4 are exceeded, if the effluent is outside the pH range of 6.5 to 9.5, or if the effluent is acutely lethal. A written report will follow within 30 days of the tests being completed.

The system will not be restarted until it is apparent that all of the applicable parameters are below the maximum guidelines.

c) Responsible Individuals

In the event of a deposit out of the normal course of events the following individuals at MPMC will implement the response plan attached to this document.

If the deposit is identified outside regular hours (ie: at night)

Environmental Superintendent
  Art Frye
  - Extension 227 (Cabin)
  - 250-809-4595 Cellphone
  - 250 492-4023 Home

*If unable to reach Art Frye

Environmental Coordinator
  Colleen Hughes
  - 250-267-0207 cellphone
  - 250-398-2269 Home

Art Frye or Colleen
Contact
  - Provincial Emergency Program – if required
  - Ministry of Environment
  - Environment Canada
d) Training
All components of the discharge system will be published in the MPMC Environmental Department Quality Assurance/Quality Control Manual. All individuals involved with the discharge system’s operation and all Environmental staff will be required to review and understand the system. A digital copy of the Manual will be available on the public network at MPMC and a hard copy will be available from the Environmental Department. The Manual will be kept current at all times. Emergency response procedures will be reviewed annually at Environmental and Engineering Department safety meetings.

e) Equipment
The only equipment required for response to a deposit at this location would be monitoring equipment and associated electronic communication systems. Continuous monitoring of conductivity, temperature and flow is conducted at W7 (700 meters downstream from the discharge and of the effluent discharge). As well, the environmental department has equipment to monitor conductivity, flow, pH, and temperature at any location downstream of the discharge site.

f) Notification
In the event of an unexpected deposit of a deleterious substance, as identified in MMER Schedule 4, MPMC will notify members of the public that may be adversely affected by the deposit. This will include contacting residents of Quesnel Lake (the receiving environment) and notifying the Likely and District Chamber of Commerce without delay. The Williams Lake Indian Band and the Soda Creek Indian Band will be notified without delay. Notifications will include the following information:

- Date and duration of deposit.
- Name, description and loading of the deleterious substance.
- Name of receiving body of water.
- Potential hazards posed by the deposit.
- The circumstance of the deposit, the measures that were taken to mitigate the effects of the deposit, and details of implementation of the Emergency Response Plan.
- Steps that will be taken to ensure a similar event does not occur again.