EMERGENCY RESPONSE PLAN
~ Kidd Mine Site ~

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A. General Emergency Response Information

A.1 Introduction to Emergency Response Plan

Kidd Operations is committed to responding quickly and appropriately to all emergencies and crises involving the operations at all times. The Kidd Mine Emergency Response Plan has been designed to align with the Incident Command System (ICS) and supports the company policy pertaining to Sustainable Development, Risk Management and local policies related to Occupational Health and Safety, Environment and Community.

A.2 Purpose of the Emergency Response Plan

The purpose of the Kidd Mine ERP is to identify potential worst-case scenario emergency situations (U/G and Surface) based on probability of occurrence and severity of the consequence. Each section of the ERP outlines procedures for organizing personnel, facilities, equipment, and communication at the scene of the emergency in order to facilitate a safe and effective rescue and recovery and to ensure that all requirements of applicable laws are met.

It must be understood that every emergency situation is unique; therefore flexibility, pre planning and management input is required. The responses outlined in this plan should be viewed as guidelines to aid in the response process.

A.3 General Information

The Kidd Mine Site is located in Northeastern Ontario, off highway 655, approximately 24 kilometres north of the City of Timmins.

Legal Name: Glencore Canada Corporation
Address: 11335 Highway 655 North, Timmins, Ontario, P4N 7K1
Telephone No.: 705-264-5200

The main areas of the Kidd Mine Site include:

- Administration Building
- Refrigeration Plant
- Compressor House
- #1 & #2 Headframes
- Loadout Facility
- Pastefill Plant
- Fuel Storage
- Primary Crusher
- Effluent Treatment Pond Area
- Shops / Warehouse
- Orica Power Magazines
- Cold Storage Buildings
- Feldman Lake Pump house and Pipeline
- Water Tower Ventilation Mine Workings
- Pit Ramp Access and Portal
- Underground Mine Workings

- Ventilation Mine Workings
- Fire Protection Tanks
- Landfill Site
- Rail Line (Between mine and concentrator)
- McIntyre Tailings Facility

A.4 Classifications of Emergency

An emergency can be defined as an existing or imminent event that requires prompt coordination of actions and resources to protect the health and safety of people, the environment, the community, and the operation.

When an emergency situation occurs, the priorities for Kidd Operations - Mine site are:

- protecting the health and safety of employees, contractors, and surrounding community.
- limiting the impact to the environment.
- solving or remedying the emergency at hand.
- protecting property, plant, and equipment.
- communicating to all appropriate stakeholders via the Incident Communication Escalation Process posted in CPCR (KMN-17-HS-GDL-00002)
- returning to normal operations as soon as possible

Emergencies are normally managed at the operations level however depending on the severity of the situation, the assistance of the Emergency Response Team, the Emergency Control Team, outside agencies (such as the police, ambulance or fire and emergency services) and Corporate Crisis Management Team may be required.

Regardless of the incident, Incident Commanders are required to notify the appropriate Emergency Control Team Members as the incident or emergency progresses and/or escalates.

The classifications of emergencies are described below, along with the initial actions associated with each emergency. At Kidd Mine, the Incident Commander shall determine the level of emergency.

Level I

This level of emergency is confined to a building or area with limited effect on other parts of the Mine site or public. This level of emergency can be controlled and/or contained utilizing resources available on site and does not require the resources of the Emergency Control Team.

Examples of a Level 1 – Small spill contained in plant.

Level II

This level of emergency is also confined to a building or area with no effect on other parts of the mine site or public, however it requires the assistance of Mine Rescue and/or outside resources, such as community fire services, police, ambulance, or other emergency response services. The member of the Emergency Control Team (Management Team) should be notified. Traffic to and from the site during a Level II emergency is restricted to vehicles and personnel required to respond to the emergency.

Examples of a Level 2 – An underground Fire

Level III

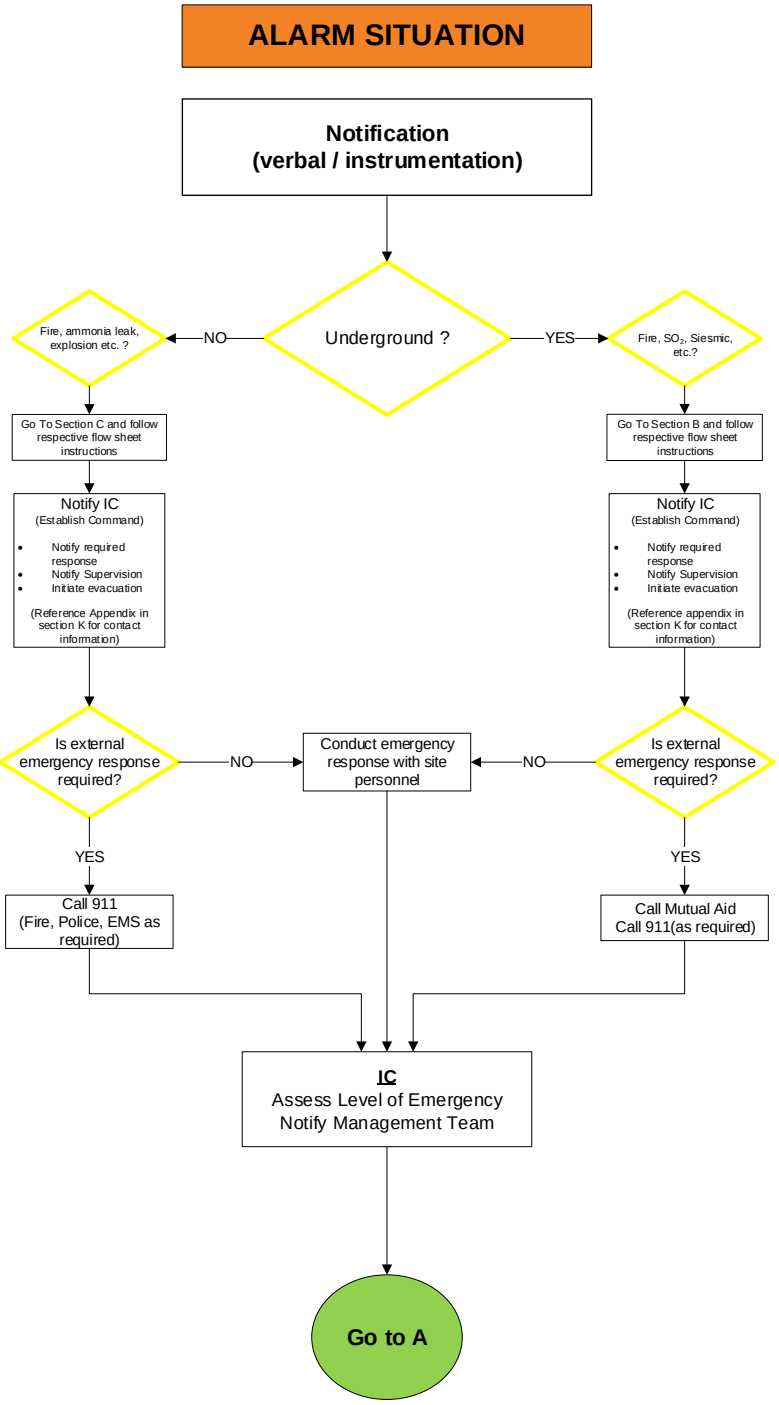
This level of emergency involves any situation that could pose a significant threat to personnel in other buildings or areas, the public and/or the environment. The Emergency Control Team will be required, as well as outside resources. Traffic on and off the site during a Level III emergency is restricted to vehicles and personnel required to respond to the emergency. For Level III incidents please refer to the Zinc Crisis Management Plan.

Example of a Level 3 – Flooding or overtopping of the mine water treatment system, or a train derailment at the level crossing of Hwy 655

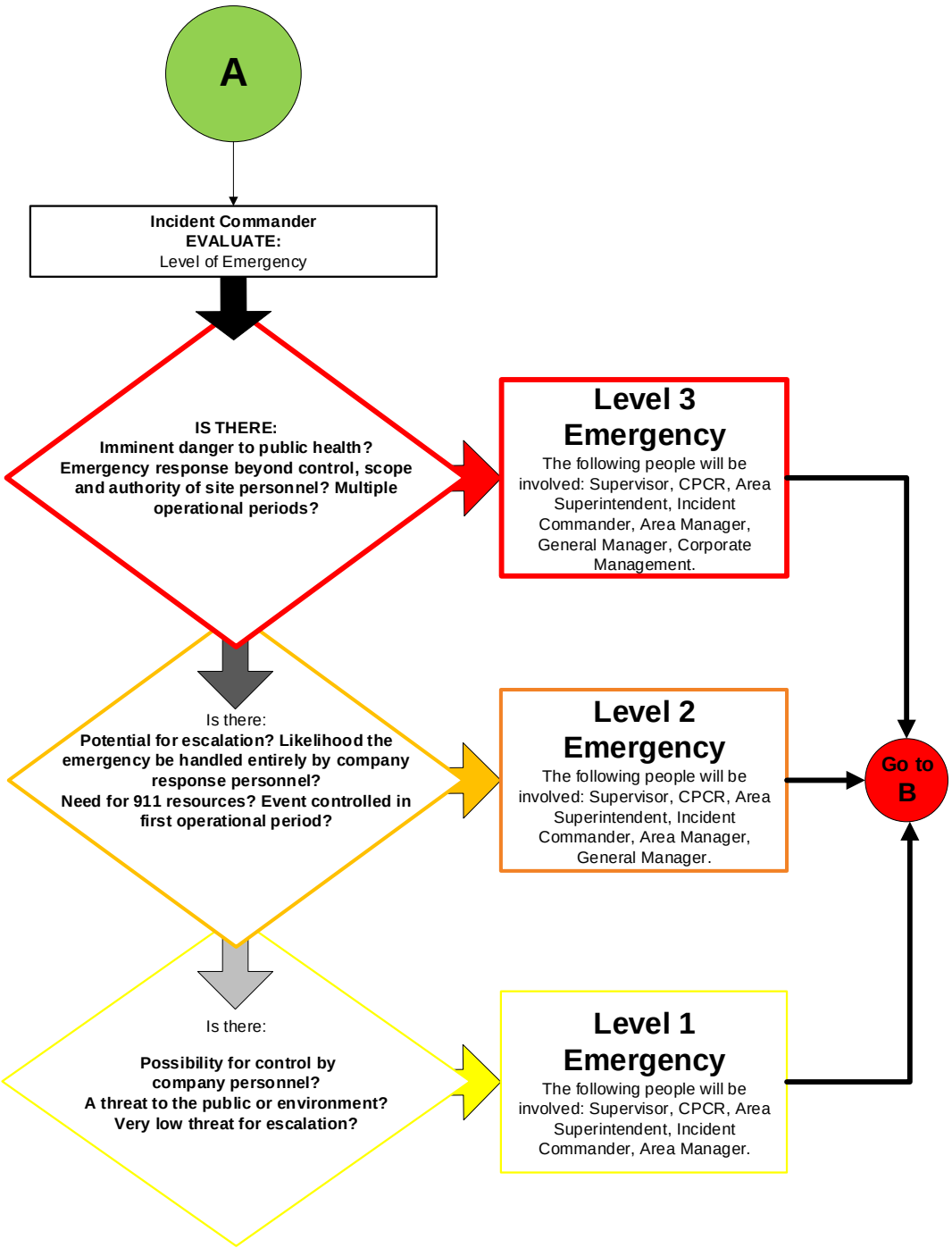
The above levels (I, II, III) would all be considered Level I based on the Zinc Crisis Management Plan crisis escalation levels.

For guidance on responding to these levels of emergency refer to the Zinc Crisis Management Plan visit the Kidd Operations Homepage – Sustainable Development and Environmental, Health & Safety – Emergency Response Plan (Mine & Conc sites) – 1. Mine Site – 5. ERP Reference Documents – 1. CORPORATE CRISIS MANAGEMENT – Zinc Crisis Management Plan_EN

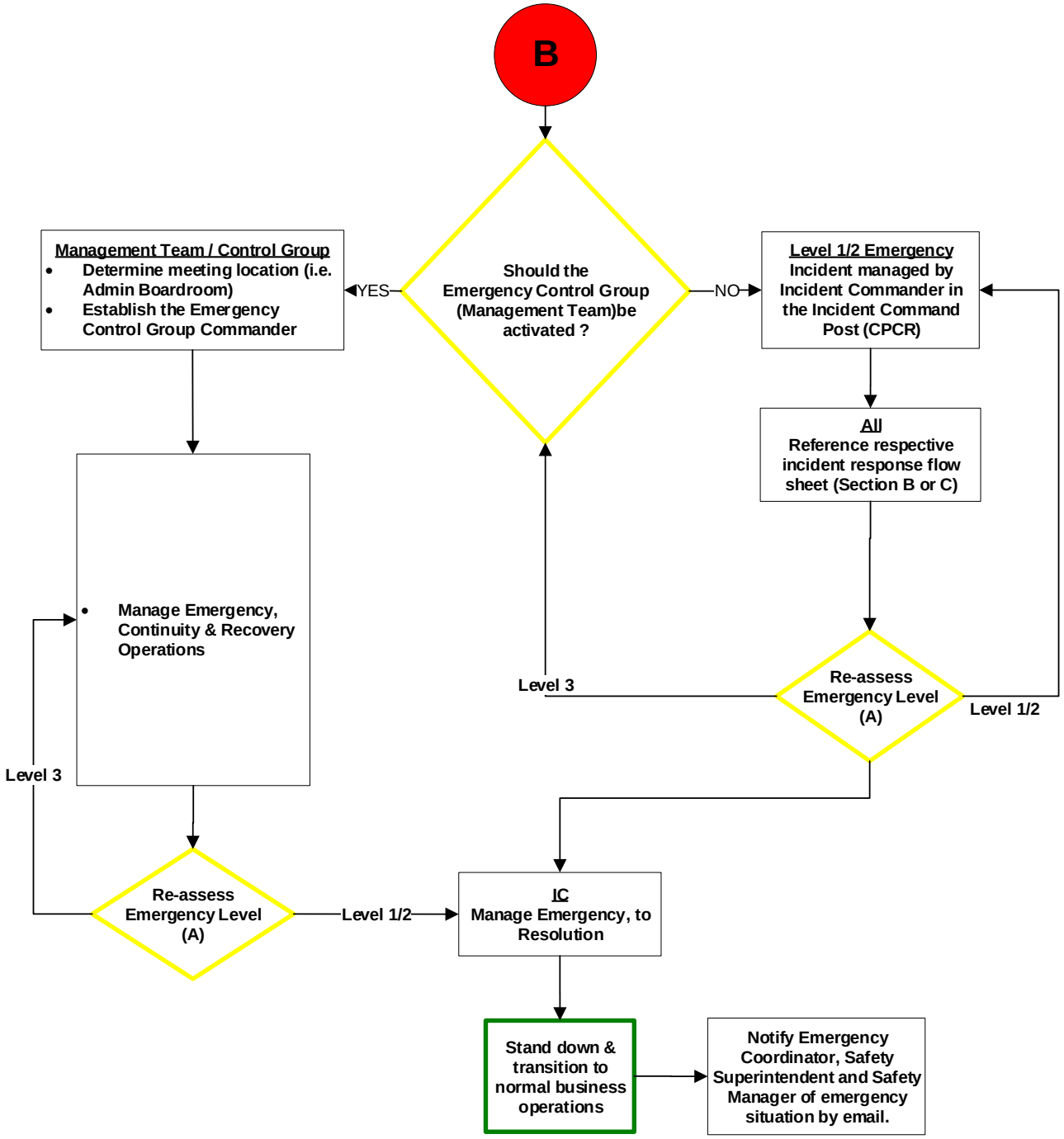
A.5 Immediate Action Decision Flowchart



A.6 Immediate Action Decision Flowchart (A)



A.7 Immediate Action Decision Flowchart (B)



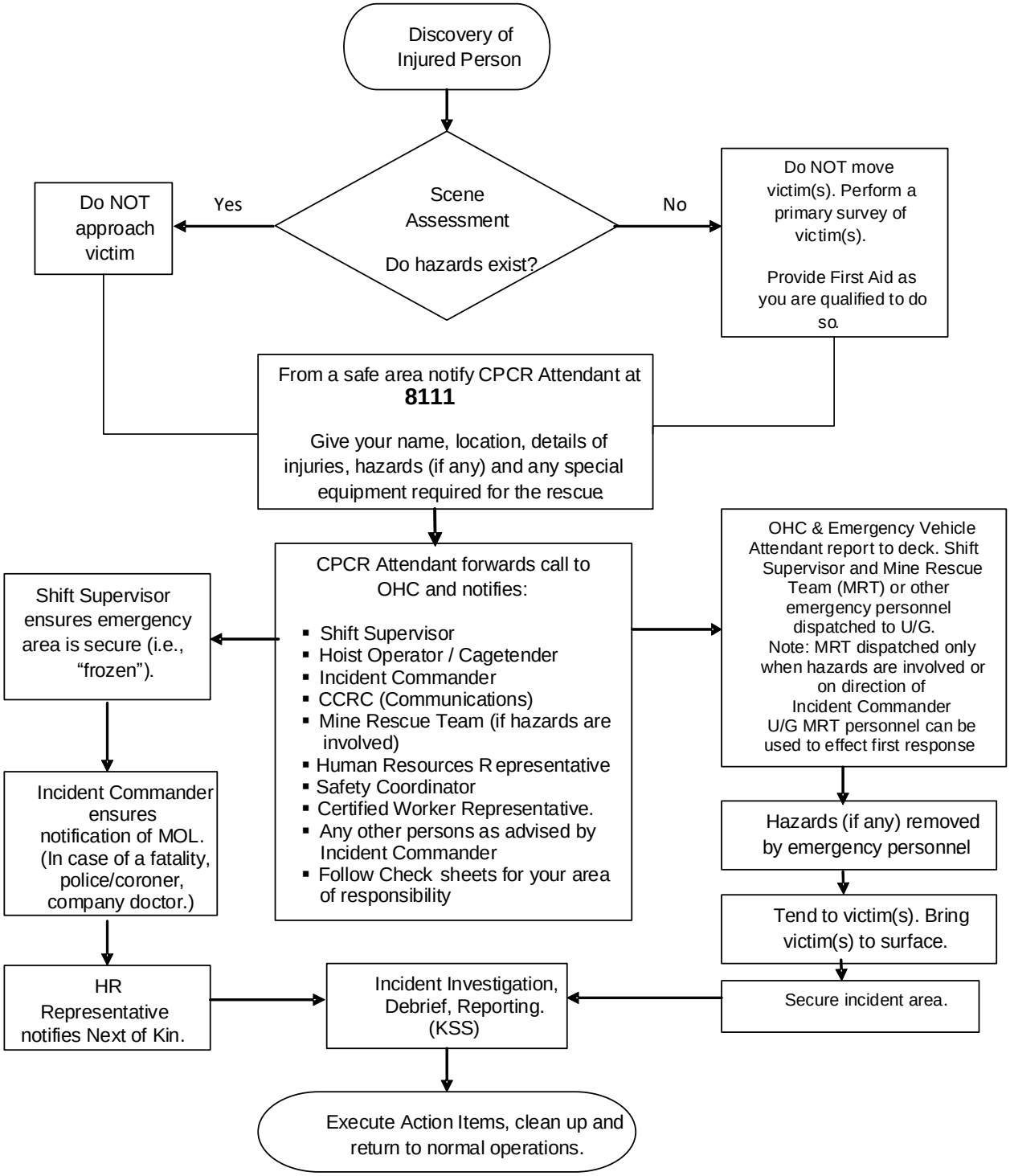
B. Functional Plans (U/G Emergencies)

This next section of the Emergency Reponses Plan outlines Kidd specific emergency plans that have been established to address possible unique emergencies to Kidd Mine. These plans have been developed to provide guidance for carrying out activities that are not specifically addressed in the overall emergency response or within the roles and responsibilities of individuals within Kidd Mine's Emergency Response Organization.

In some cases, the emergency actions described in this section may be in a condensed form that reflects more extensive procedures that have been developed or have been put in place by Kidd Mine personnel. These include contingency plans, protocols, standards, work practices and procedures.

B.1 Critical Injury (Underground):

CRITICAL INJURY PROCESS FLOW



Critical Injury Definition

For the purposes of the OHS Acts, “critical injury” means an injury of a serious nature that:

- Places life in jeopardy.
- Produces unconsciousness.
- Results in substantial loss of blood.
- Involves the fracture of a leg or arm but not a finger or toe.
- Involves the amputation of a leg, arm, hand or foot but not a finger or toe.
- Consists of burns to a major portion of the body.
- Causes the loss of sight in an eye.

Discovery of Critically Injured Victim (Responsibilities of Worker)

Upon arriving at an incident scene, the first action to take, for your safety and the safety of any victims, is to perform a hazard assessment:

- Are there any electrical wires down?
- Is there a leak of hazardous environment?
- Is there a risk of fire or explosion?
- Is there a risk of ground fall?
- Is there a danger of becoming a victim if you approach the scene?
- Can you determine what factors caused the incident?

“DO NOT ATTEMPT TO RESCUE INJURED PEOPLE UNTIL ALL HAZARDS ARE UNDER CONTROL!”

If, after completing the hazard assessment it has been determined that it is safe to approach the victim(s), perform a primary survey, following the ABC’s: Airway - Breathing - Circulation.

Be sure to check for airway obstruction, proper breathing, and major arterial bleeding. Do not move the victim(s) unless life-threatening conditions exist. Be cautious of spinal injury and take all precautions to prevent further injury.

Alert the Central Process Control Room (CPCR) Attendant at extension 8111. If you are not near a phone, send someone for help – do not leave the victim(s) unattended if at all possible. Report the following information to the CPCR Attendant:

- Your name
- Name of victim(s), if known
- Location of incident
- Extent of injuries or what happened, if known

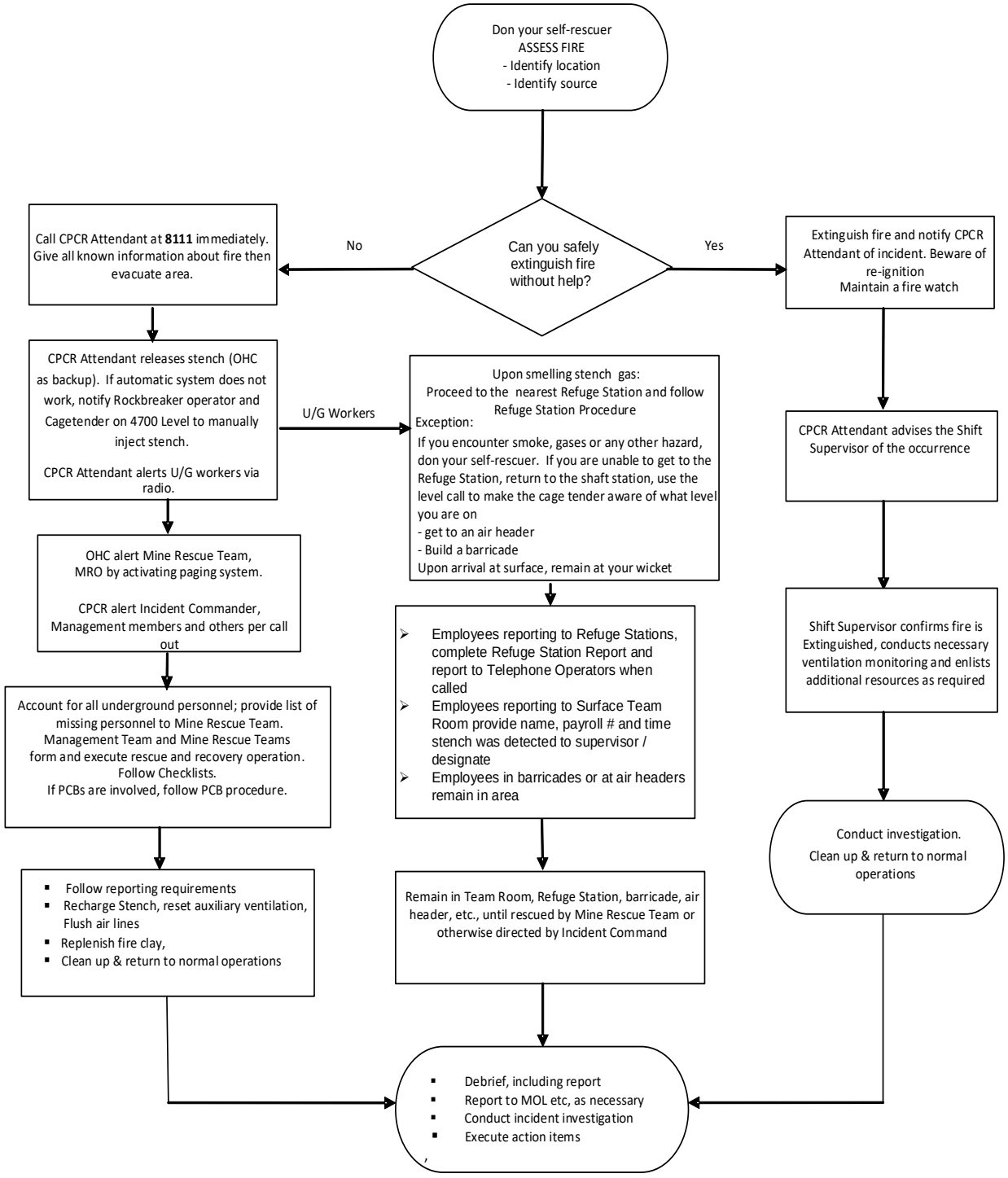
Send someone to the shaft or nearest entrance to incident scene to wait for the Shift Supervisor or other rescue personnel. Unless for the purpose of saving a life / relieving human suffering or to prevent further damage to property, do NOT disturb the incident scene (i.e., move or remove anything) until an investigation has taken place.

Reporting Requirements

- Refer to Ministry of Labour notification / reporting requirements for a critical injury or fatality.
- Refer to Ministry of Labour notification / reporting requirements for accidents, explosions or fire causing disabling injury.
- Refer to Kidd Safety System (KSS) for the Incident Investigation Report.
- Refer to KOP-SAF-PRO-00007 Incident Investigation Standard.

B.2 Underground Fire:

UNDERGROUND FIRE PROCESS FLOW



The major hazards to life during and after an underground fire are carbon monoxide poisoning and suffocation in an atmosphere deficient in oxygen. The smoke and gases will travel very quickly from the point of the fire throughout the underground mine workings, moving towards exhaust paths potentially compromising the safety of all personnel underground. It is therefore imperative that the smell of smoke or something burning be investigated immediately and the appropriate response taken.

Discovery of Fire (Responsibilities of Worker)

If you discover fire or smoke, stay calm and don your self-rescuer. Do not panic. Assess the situation – can you safely determine the source of the smoke and extinguish the fire? If you can safely extinguish the fire:

- Use the appropriate extinguishing media for the fire. Do not use water on fires where electricity may be involved. Refer to Table B-2 for types of fires and corresponding extinguishing techniques
- Ensure that the fire is extinguished completely. Be aware of re-ignition.
- Maintain a fire-watch
- Immediately report the incident to CPCR and your Shift Supervisor, who will investigate further.

Table B-2 Classification of Fires

Fire Class	Extinguishing Technique
Class A Fire – refuse, wood, etc.	▪ Use water, dry chemical extinguishers (located at all electrical equipment or refuge Stations), sand, fines, etc.
Class B Fire – oil fire	▪ Foam, carbon dioxide or dry chemical extinguisher should be used on small oil fires. ▪ A fire burning on a solid surface can be smothered with sand, fines, or gravel. ▪ A fire burning on a liquid surface, as in a sump or container, may be extinguished using a fog nozzle or by cutting off the air supply to the fire.
Class C Fire - electrical fire	▪ If possible, cut power off at the nearest switch. ▪ Extinguish fire with dry chemical or carbon dioxide extinguishers only.
Mobile Equipment Fire	▪ Apply the emergency brakes and shut down vehicle completely. If the vehicle is on the ramp, turn vehicle to the wall, or if possible, leave in areas off the ramp. ▪ Extinguish the fire with the A-B-C extinguisher mounted on the equipment, or, if equipped, activate the fire suppression system.
Tire Fires (On equipment and in storage areas)	▪ If safe to do so, barricade the equipment. ▪ Retreat to a minimum distance of 300m metres for potential tire pyrolysis explosions. ▪ Do **NOT** attempt to extinguish the tire yourself.
Lithium-Ion Battery Fire	▪ Extinguish battery fires with water. Fires started by a lithium-ion battery in nearby materials can be extinguished with any appropriate extinguishing agent. ▪ Remove surrounding materials and isolate the batteries. ▪ Drop single burning batteries into a bucket of.
Acetylene Fire	▪ If possible, turn off valves at the cylinder. ▪ If it is not possible to turn off the valves, cool the cylinder by using a water hose. Turn off the valves when cylinder is no longer hot. ▪ If the acetylene continues to burn, guard the area, and ventilate. ▪ Do not smoke.

Fire Reporting & Evacuation

At the first sign of fire or explosion don your self-rescuer. If you are not able to extinguish the fire by yourself or if the air is smoky, leave the area immediately, retreating towards the closest refuge station or fresh air source. Immediately contact the CPCR Attendant at 8111 from the nearest phone or by RADIO and report the following information:

- Name, payroll number and location
- Location of fire / smoke
- Size and type of fire
- Injuries, if known
- Request a release of the stench gas.

Once all information has been given, evacuate the area, following the Evacuation Procedure Following Stench described below.

Evacuation Procedures Following Stench

Upon smelling stench gas, it is critical to STOP WORK, move mobile equipment out of main haulage ways, turn off all equipment, leaving the key in the ignition and evacuate the area immediately. Inform anyone you see that the stench gas has been released. Note the time that you smelled the stench. This information is important in determining the effectiveness of the ventilation network and the stench gas notification system.

The options for evacuation are listed below.

- If you encounter smoke, don your self-rescuer.
- Go to the nearest Refuge Station. Follow Refuge Station procedures once inside.
- The most qualified person (position or seniority) will maintain order and report to the CPCR Attendant when called. If no call is received with 60 minutes, call the CPCR Attendant.
- If the way to the refuge station is impassable, follow the procedure below.
- If you are at a Shaft Station, call the cage tender on the Level Call Signal, to be hoisted. (In #3 or #4 mine via 4 shafts, when hoisted, go to the 4700 Collar Refuge Station).
- If you are travelling in the ramp and you smell stench gas, turn off to the nearest level where there is a refuge station. Follow Refuge Station procedures.
- If you are above 800 in the ramp continue to surface, when you reach the portal call CPCR at 8867, give Name, Company (payroll #) and what time you smelled stench and your approximate location in the ramp – proceed to the Administration Building, and report to the appropriate wicket, or CPCR.

If you are not able to safely reach a refuge station due to smoke or other hazards, retreat from the smoke / hazard, shut off any auxiliary fans, if possible, tie off ducting to prevent rapid contamination of area and create a barricade to protect yourself from the smoke and fire gases.

The optimal location to build a barricade is in a heading that is not connected to other mine workings, free from gas and supplied with a compressed air header and water lines. To create a barricade, follow these steps:

- Utilize any available materials to build the barricade, such as timber, boards, canvas, vent tube. Ensure you are at a compressed air header.
- If possible, create some sort of signage outside the barricade area indicating the number of people inside to point out your presence to mine rescue team members.

Open a compressed air line in the barricade to provide additional air. If you have a radio, or phone (Teams), give your location to the CPCR Attendant. Remain inside the barricade until rescuers arrive with proper apparatus for ensuring a safe exit.

When there is neither the time nor material to build a barricade, look for an air header or hose. Use available materials (e.g., clothing, lunch bag, etc.) to direct the flow of air to your face and wait there until rescuers arrive.

If you have a continuous flow of compressed air and your self-rescuer has gone beyond its life them remove it and wait while maintaining the flow of compressed air across your face.

Refuge Stations

Each refuge station is equipped with an air source, a telephone, potable water, and pails of clay to seal openings from smoke or gas. The following procedures should be followed when entering a refuge station during an emergency situation:

- The first employee to arrive at the refuge station will turn off the refuge station fan, turn on the air source, then seal the inside door and all other holes with clay provided and ensure that the P-trap is filled with water.
- Open the door as more people arrive. Reseal the door and station one person at the door to admit others and reseal the door.
- The most senior person in the Refuge Station will complete a Refuge Station Emergency Report (please see KMN-17-ERP-FRM-11144 -Refuge Station Report) by recording the names of each person in the refuge station, their payroll number, time when they smelled the stench gas or were informed to go to the refuge station and the area in which they were working. Make note of any mine rescue team members. This person will also be responsible for taking any calls in the refuge station. The Tag Board Checkers will contact the Refuge Station for information. To control the number of calls coming into the CPCR do not call the CPCR unless to report injured personnel or other serious hazards.
- If you have not received a call within 60 minutes of the stench, contact the CPCR at 8867.
- The air source should be kept open all the time.
- Remain in refuge station until the mine rescue team arrives or when the Incident Commander calls with the “All Clear” announcement.

Evacuation of Refuge Stations

Where a Refuge Station is in a location where there could be increased risk to personnel, the Refuge Station may be deemed unsafe to use, and personnel may be directed to travel to another location where the hazard is reduced. The decision to close any Refuge Station will be at the discretion of the Incident Commander. Personnel will be contacted, and specific instructions given if they are to proceed to another Refuge Station.

Advanced Fresh Air Base

Where it is determined by the Management Team and Incident Commander/Briefing Officer that an Advanced Fresh Air Base (AFAB) is necessary to expedite the response to either a fire or

non-fire emergency, a refuge station may be evacuated and converted to a Mine Rescue base of operations.

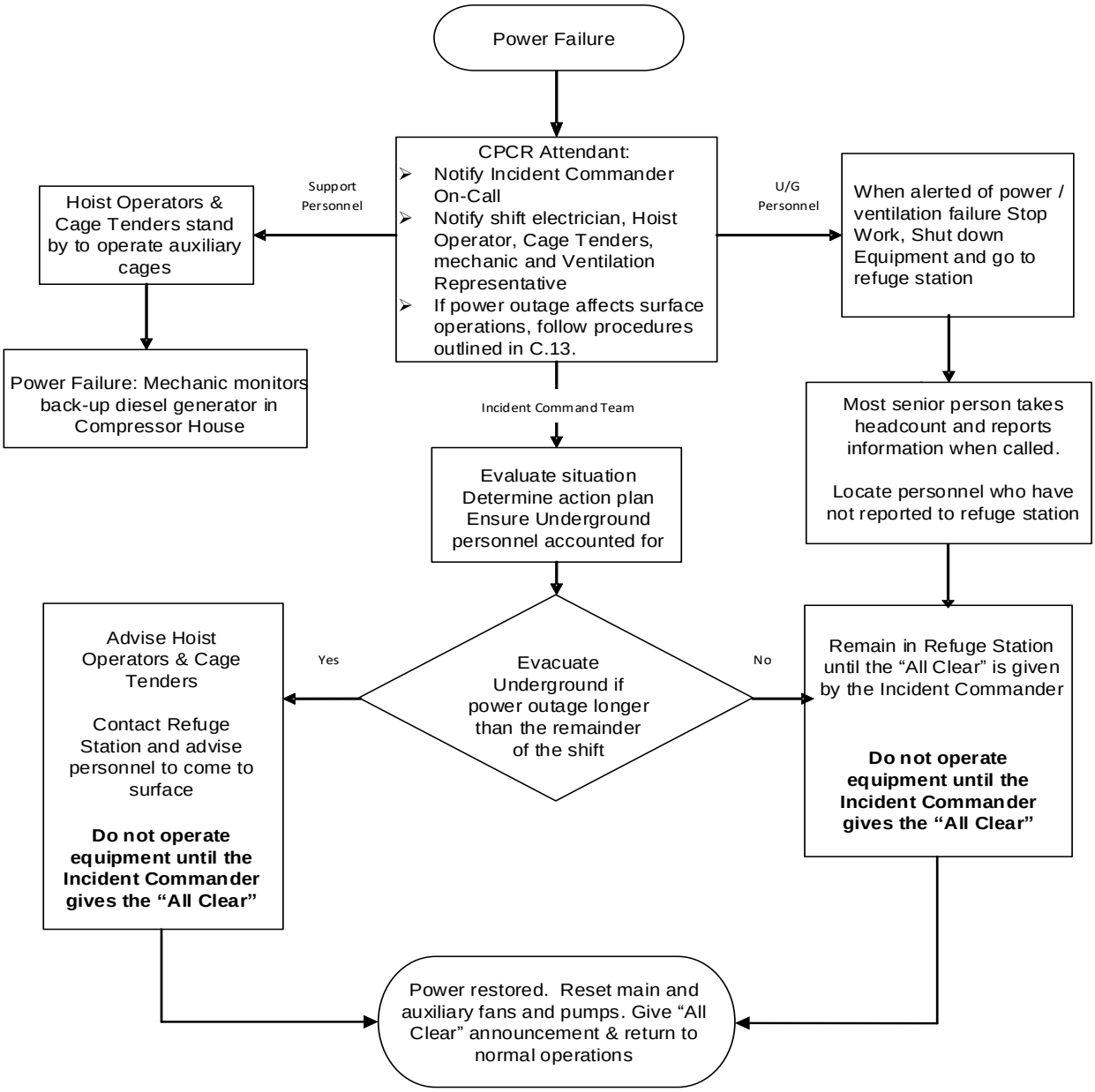
Depending on the location and nature of the emergency, any Refuge Station could be used for this purpose, as long as there is an established safe route of travel for all emergency personnel accessing the AFAB. Personnel will only be evacuated from a Refuge Station prior to the general “all clear” announcement when general conditions (atmosphere, physical stability) have been confirmed to be free from hazards and that releasing personnel from a specific Refuge Station will facilitate the emergency response.

Personnel will only be removed under the direction of the Incident Commander, and with the assistance of Mine Rescue personnel, to ensure the safety of the workers so affected. Workers will be directed to go to other safe refuge, or directly to surface, as appropriate for the emergency at hand.

Communications shall be made directly with those persons in the affected Refuge Station, and strict instructions regarding communications with others, route of travel, and method of transport will be given to ensure the safety of all personnel.

B.3 Power Failure:

POWER FAILURE PROCESS FLOW



Notice of Power Outage (Responsibility of Employees)

There are a number of ways to be alerted of a power outage:

- Verbal alert by supervisor or other personnel.
- Ventilation fans will stop running. Check area sub-station to ensure it has not tripped or if there is a power outage.
- Electrical equipment stops running. Check area sub-station to ensure it has not tripped or if there is a power outage.
- Lights at substations along the ramp are out.

Once notified of the power outage, all workers must:

- STOP WORK
- Shut down equipment. For electrical equipment, turn the power switch to the 'off' position to ensure that when the power is restored it does not run unattended. For diesel equipment, shut off and park in an area that permits passage; use the emergency brake. Shut down compressed air feed to drills by closing the valve at the header. Diesel pick-ups must stop and park in an area that permits passage.
- Walk via the safest route to the nearest refuge station, alerting everyone that the power is out and to STOP WORK.
- The most qualified person (position or seniority) will maintain order and report to the Tag Board checker when called. If no call is received with 60 minutes, call the CPCR Attendant.
- Remain in the refuge station until otherwise instructed by the Incident Commander.

Diesel equipment must not be started until the main ventilation system has been fully restored and the CPCR Attendant has communicated the "All Clear". The only instances in which a diesel truck can operate underground during a power failure is to transport injured personnel or to transport electrical or mechanical personnel to the back-up diesel generator or main fans, providing no other conveyance is available. (i.e.: using the small cage is not an option)

If the power outage will be lengthy, you may be requested to take the small cage to surface. All travel to the cage shall be by foot unless otherwise instructed.

Short Interval Interruptions – Electrical Distribution System

Short Interval Interruptions result from Ontario Hydro automatic resets after clearing intermittent fault, or unforeseeable switching requirements.

Power may go off and on several times at short intervals, either because of Ontario Hydro's automatic reset scheme or because of unforeseeable switching requirements.
Before attempting to reset our system, make sure the voltage has stabilized.

To confirm the Electrical power system stability, call:

- Hydro One Transmission Operations Centre 1 866-384-4743,
- Access code 39847#

- Reason code 05#
- Station code 400#.

This will transfer you directly to the Ontario Grid Control Centre operator. The CPCR Attendant will identify himself or herself in the following manner: Central Process Control Room attendant at the Kidd Operations - Mine Site Highway 655 Timmins Ontario.

Identify the situation to the OGCC operator:
"We experienced a momentary power Interruption on the H7T line stopping the mining process".

Confirm with the OGCC operator if their system has been stabilized and the mining process can be resumed. When the Hydro One operator confirms to the CPCR Attendant that services have been stabilized the Checklist - Electrician Resetting Power - Power Failure (KMN-17-ERP-FRM-14142) may be implemented.

The CPCR Attendant will contact the Surface Plant shift electrician and assign this person to complete the Resetting Power Check Sheet.

The shift electricians will report to the CPCR and the CPCR Attendant will give them a copy of the Checklist - Electrician Resetting Power - Power Failure (KMN-17-ERP-FRM-14142) The CPCR Attendant will also use the check sheet to monitor the status of the electrical recovery.

The shift electrician will perform the following checks as per the appropriate checklist:

- Report any breaker that has a fault indication on the protection relay.
- Inform CPCR that further investigation to the cause of the fault is required
- The CPCR Attendant will contact the Electrical Supervisor, Process Owner or Plant Electrical Engineer before the shift electrician attempts re closure of any 15KV power system circuit breaker that has indicated a fault condition.
- If there is a fault indication on the Main incoming breakers for Buss A or Buss B, the shift electrician will leave the circuits open and report the condition to the CPCR Attendant.
- The electrician will continue on with the checklist and return to the faulted circuit upon completion of the check sheet.

Interruption Resulting from Permanent Fault(s) Within the Electrical Systems

Power will go off and stay off. Diesel generator 1, 2 and 3 located at the powerhouse, the Mine D generator in the blue shed, and generators at the surface mechanical shop and CO2 Plant will start automatically. Robotic switches in both head frames and powerhouse will operate to connect essential loads (such as lighting in critical areas, elevators, and auxiliary hoists) to standby power provided by the diesel generators. The 4-mine emergency power 13.8 breaker transfers will occur automatically.

The diesel generator in the surface shops, the CO2 Plant and the diesel pumps in the fire pump house and Feldman Lake will start to provide the areas with essential power requirements or will ensure adequate flow of water to critical systems.

The Central Control Room will be supplied on the emergency power system and UPS backup.

The CPCR Attendant will contact the Surface shift electrician to verify if the power disturbance is a result of the Hydro One network or is localized to the Kidd Mine site.

When the shift electrician verifies the Kidd system is on and the power outage is a result of the Hydro One network, the CPCR Attendant will contact:

- Hydro One at 9-1-866-384-4743
- Access code 39847#
- Reason code 05#
- Station code 400#

Identify only YOUR ELECTRICAL POWER situation to the Ontario Hydro operator. We experienced a Power failure on the H7T line causing interruption to the mining process.

Confirm with the OGCC operator the cause of the fault and when they expect Power system can be re-established. Ask the Hydro One shift operator to call the Kidd Mine Central Process Control Room before the power has been restored to the H7T transmission line to ensure that no personnel are working on equipment that could become “live”.

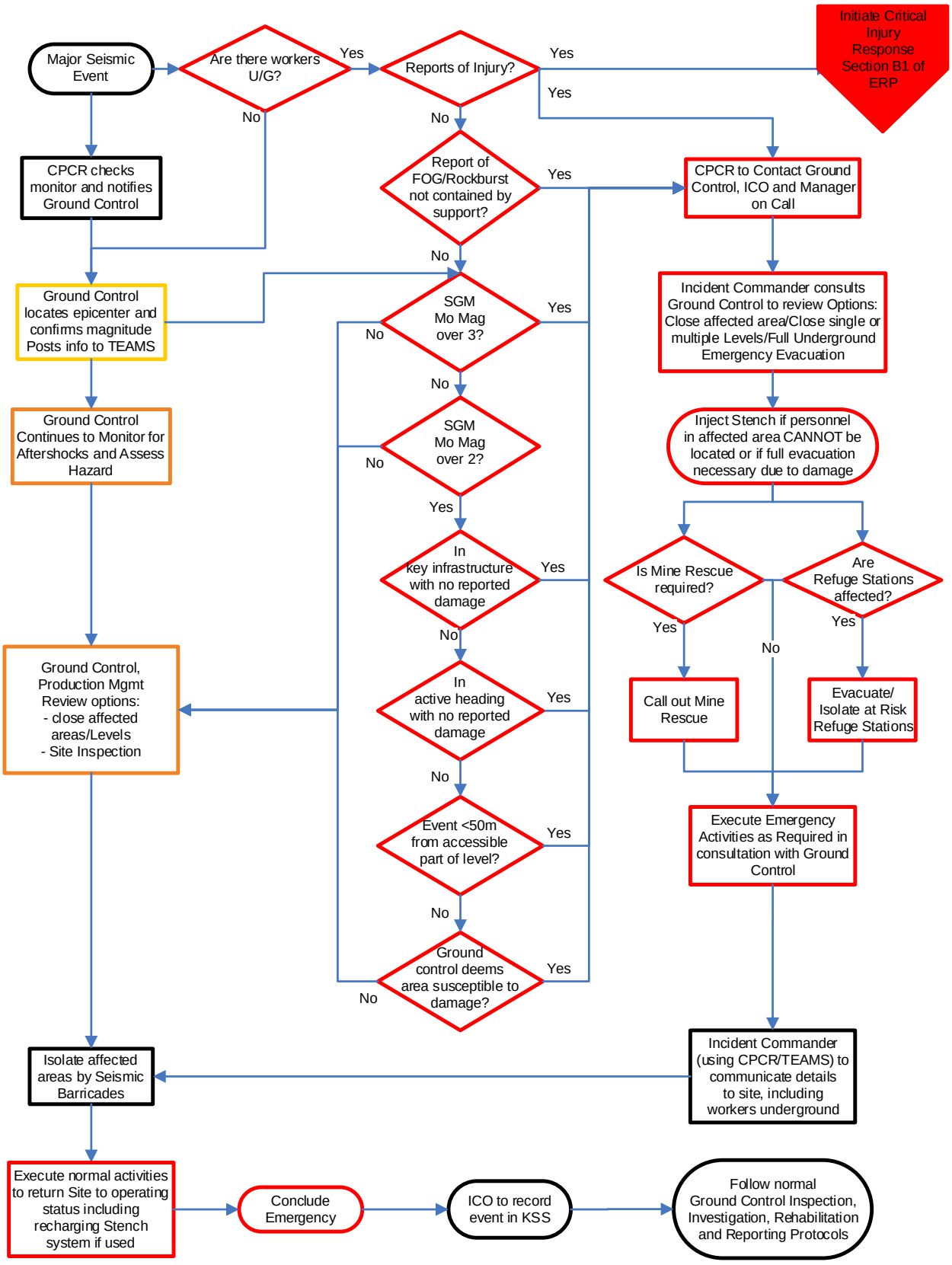
Power Interruption Exceeds 30 Minutes

The CPCR Attendant will advise workers to STOP WORK and report to Refuge Stations. Follow check sheet listed below:

Systems affected by Power Outage		
T1	**T2**	**10 MVA**
No. 4 Shaft Hoisting Plant and lighting for it on 4700 and 46-1.	Mine D - pumping stns, loading pockets, fans	CO_2 Plant
NVR Fans	Booster Fans, 6000 level	Lime Plant
2800 Crusher & Conveyor	#3 Mine	Surface Crusher & Conveyors
#1 Mine Pump on 1200 & 2400 levels	Refrigeration Plant	South Rock Dump Reservoir
Admin Building	Paste Plant	Feldman Lake Pump House
Power house	#2 Mine- pumping stations on 3600 and 4800 levels, loading pockets, on 2800 and 4900 levels.	Surface Diesel Shops
Surface Compressors	#2 Mine Hoisting Plant	Warehouse
Surface Conveyors	4700 Crusher & 4800 Conveyors	Hwy 655 Railway crossing
Geho pumps, 6800 level	Kiruna & #48 Conveyor System	CBC Tower
6800 loading pocket	No. 2 Mine Pumps (3600 & 4800)	Cell Phone Tower
6650 Conveyors	All power from 2800 level to the mine bottom exept for the D mine hoisting plant on 4700 and 46-1.	
Paste Plant		
All power from surface to and including 2400		
Power to 6650, 6700, 6800 and 6850.		

During the power interruption, the CPCR Attendant will contact the surface shift electrician to complete the Emergency Power Check list.

B.4 Seismic Event:



SEISMIC EVENT PROCESS FLOW
Responsibilities of Underground Personnel during a Seismic Event

If you feel a seismic event:

- Report the event to the CPCR Attendant immediately.
- If there is any obvious damage, or a fall of ground, avoid exposing yourself to the hazard, and report the location and nature of the failure to the CPCR Attendant.
- Clear the area, warning others, and fence the area if safe to do so.
- Personnel to proceed to refuge station and remain on level if safe to do so. If travel blocked by Fall of Ground, go to most heavily supported area in smallest drift – remain calm.
- Report event to your supervisor.

Responsibilities of Central Process Control Room Operator during a Seismic Event

Depending on the location and size of the event, the Central Process Control Room Operator may be required to do any of the following:

- Alert personnel to the magnitude and location of the event
- Contact Ground Control and follow all instructions
- Alert Supervisors to check for damage, to locate personnel, or to evacuate and barricade affected areas as advised by Ground Control
- Initiate the ERP if there are any reports of injuries or damage that may result in personnel becoming trapped – follow check sheet and flow chart
- Contact Incident Commander and inform of the event and of any recommendations from Ground Control, and call out any other support personnel as advised
- Contact hoist man and request trial runs of conveyances to confirm no damage in shafts
- Call out Mine Rescue personnel as advised by Incident Commander and/or Ground Control
- Inject Stench as advised by Incident Commander after consultation with Ground Control if there is damage in a main travel way or the potential for missing or trapped workers
- Execute all other normal duties as part of the emergency response – see checklist

Responsibilities of Ground Control during a Seismic Event

Depending on location and size of event, Ground Control may request any of the following:

- Supervisors to inspect for any damage and account for personnel assigned to work in affected area by radio, travel to area etc.
- Supervisors to account for all personnel assigned to work in the affected area and have them evacuated to a designated location and barricade the area.
- Identify any at risk refuge stations that should not be used due to the seismicity and potential for aftershocks.

- Identify any routes of travel that may be at increased risk and recommend alternate routes of travel if they are available.
- Recommend trial runs of all conveyances in the affected shaft(s), to ensure no damage to infrastructure that would interfere with the emergency response or evacuation of the affected area if the event(s) are in close proximity to, or of sufficient magnitude to potentially result in damage.
- Recommend a full Shaft/conveyance inspection if there is potential for damage.
- Stench to be injected upon consultation with the Incident Commander if missing personnel or damage which results in the potential for trapped personnel is reported (see flow chart).
- Participate on an underground emergency response team as required (ground control personnel who are also trained in mine rescue).
- Environment Department to perform dam safety inspection if magnitude >3.0.
- Buildings and other surface infrastructure may require inspection if PPV in excess of 3 inches or 75mm per second on surface.
- Perform necessary inspections once all clear is given as part of normal work duties, including the creation of rehabilitation plans, ground inspection reports, etc.
- Prepare and issue notification documents to the Ministry of Labour, Immigration, Training and Skills Development, and Workplace Safety North, as required.

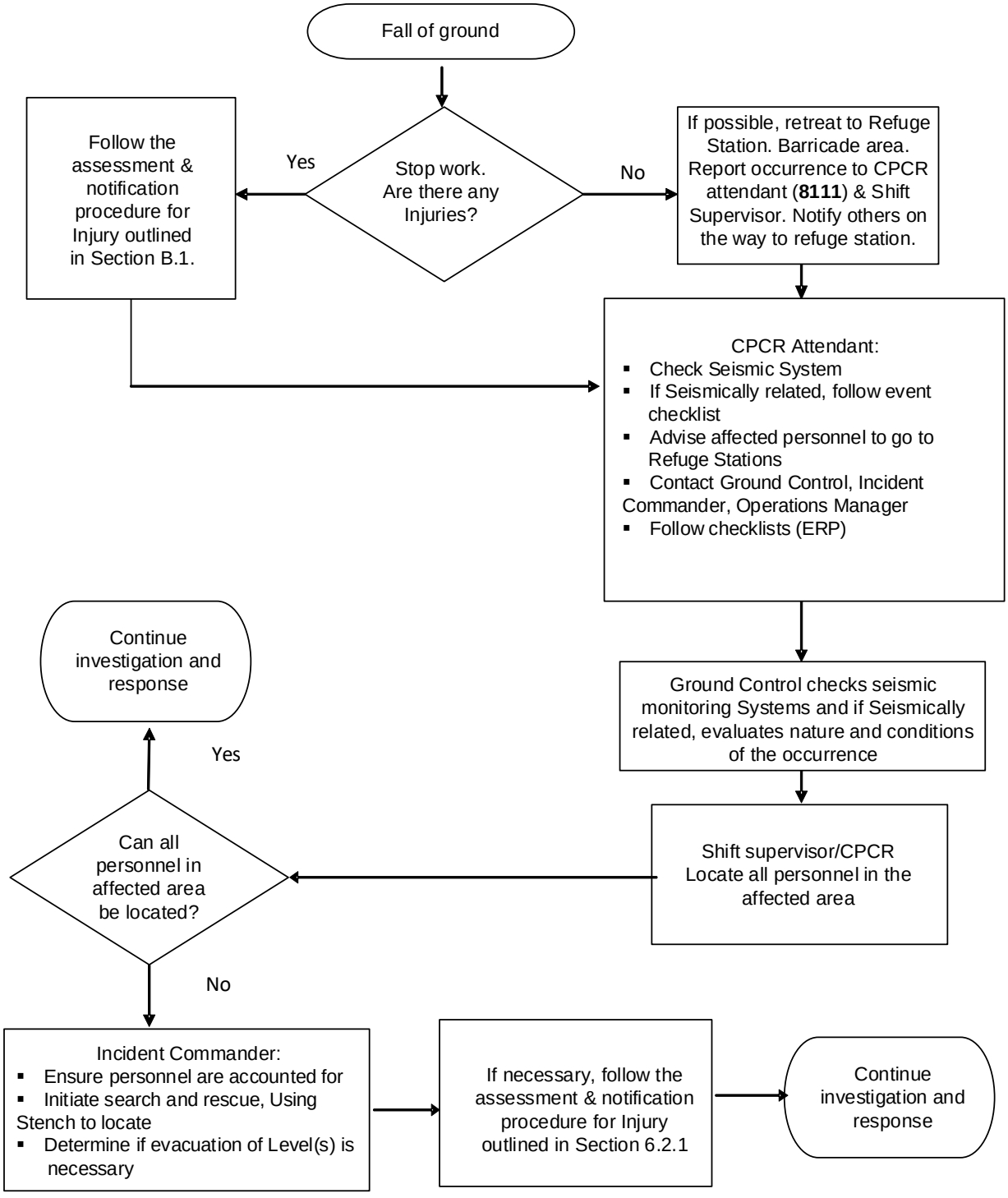
Responsibilities of Incident Commander during a Seismic Event

Depending on location and size of event, if the ERP is enacted, the Incident Commander may be required to do any of the following:

- Report to Emergency Command Centre
- Consult with Ground Control on action taken so far and follow any recommendations.
- Assess the nature of the event, and classify the Level of Emergency based on Section A.4 of the Emergency Response Plan
- Confirm that the appropriate tests have been conducted for conveyances in case they must be used as part of an emergency response or evacuation.
- Deal with injuries in accordance with Section B.1 of the Emergency Response Plan, however, ensure that no additional personnel will be put at increased risk depending on the nature of the event.
- In consultation with Ground Control, obtain resources, including Mine Rescue personnel as required to deal with the emergency.
- Advise that Stench be injected in cases where there are missing or the potential for trapped personnel.
- Ensure all necessary steps are taken as part of determining the ‘all clear” and announce as appropriate – refer to check sheet.
- Gather all reports, check sheets, and other documentation, and contact Safety Department, Emergency Response Coordinator, Manager, General Manager, or any other personnel as required with the details of the event.

B.5 Major Fall of Ground:

MAJOR FALL OF GROUND PROCESS FLOW



Major Fall of Ground

For the purpose of the Emergency Response Plan, a major fall of ground is one that results in:

- injuries; and/or
- suspected missing or trapped personnel; and/or
- a major haulage way or excavation (i.e., main ramp, shaft, level entrance, 01 drifts) made impassable due to the ground fall.

Discovery of Ground Fall (Responsibilities of Employees)

- Stop work.
- If there are injured victims involved, refer to the procedure outlined for Injuries, otherwise:
- Fence off the area or remain on guard.
- If possible, after fencing the area head to the nearest Refuge Station. Warn any others along the way.
- Contact Central Process Control Room Attendant and Shift Supervisor, giving the following information:
  - Name
  - Location of ground fall.
  - Size of piece(s).
  - Inform if there is continued ground movement/caving.
  - Remain in Refuge Station until otherwise advised by the CPCR Attendant.

Duties of Ground Control

- Participate in emergency response as required.
- Assist Mine Rescue as required.
- Ensure proper notification is made in TEAMS and any barricades are installed per SOP's.
- Conduct inspections, prepare Ground Inspection Report, Unusual Occurrence Report, Rehabilitation plans, etc. as required per normal Ground Control protocols.
- Prepare and issue notification documents to the Ministry of Labour, Immigration, Training and Skills Development and Workplace Safety North as required.

Responsibilities of Incident Commander – Fall of Ground

Depending on location and size of event, if the Emergency Response Plan is enacted, the Incident Commander may be required to do any of the following:

- Consult with Ground Control on action taken so far and follow any recommendations.
- Assess the nature of the event and classify the Level of Emergency based on Section A.4 of the Emergency Response Plan.
- Confirm that the appropriate emergency response has been undertaken.

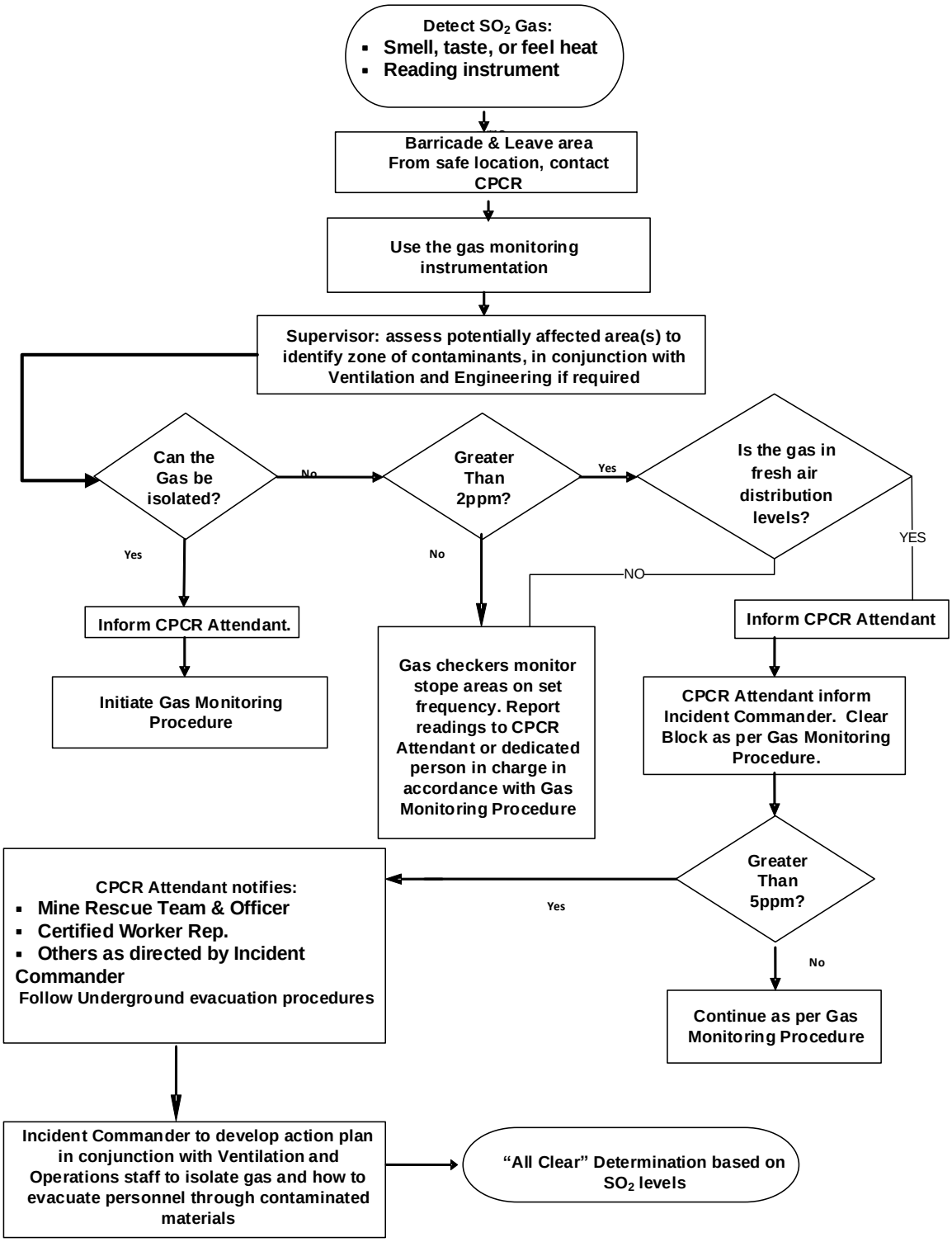
- Deal with injuries in accordance with Section B.1 of the Emergency Response Plan, however, ensure that no additional personnel will be put at increased risk depending on the nature of the event.
- In consultation with Ground Control, obtain resources, including Mine Rescue personnel as required to deal with the emergency.
- Advise that Stench be injected in cases where there are missing or the potential for trapped personnel.
- Ensure all necessary steps are taken as part of determining the ‘all clear” and announce as appropriate – refer to check sheet.
- Gather all reports, check sheets, and other documentation, and contact Safety Department, Emergency Response Coordinator, Manager, General Manager, or any other personnel as required with the details of the event.

Reporting Requirements

All reporting of either a seismic event or a fall of ground will be conducted in accordance with the latest version of the Occupational Health and Safety Act and/or the Mining Regulations. Consult with the Ground Control department and the Safety department for guidance following any rock burst or fall of ground. Reporting to the Ministry of Labour, Immigration, Training, and Skills Development and Workplace Safety North shall be done by the Ground Control Department, using standardized reporting forms.

B.6 Sulphur Dioxide:

SULPHUR DIOXIDE PROCESS FLOW



Sulphur Dioxide (SO2) Emissions in Underground Stopes

Sulphur dioxide emissions in underground stopes are caused by:

- High pyrite and/or pyrrhotite content of ore in large, massive zones.
- The size of the muck – fine muck offers more surface area to oxidize.
- Water, which increases the reaction rates.
- Muck, left undisturbed, will continue to generate heat, which, with time, will accelerate the oxidation process.

Sulphur Dioxide gas reacts with water or moisture to generate sulphurous acid, which can be corrosive to tissue. SO2 is extremely irritating and corrosive and is toxic when inhaled.

Generally, SO2 concentrations above 2 ppm will not get into the general atmosphere because of the dilution effect from the primary ventilation system on the level and in the ramp. However, there remains a possibility that SO2 can enter the general atmosphere; therefore, it is extremely important to leave an area when SO2 gas is detected.

Detecting Sulphur Dioxide (SO2) (Responsibilities of workers)

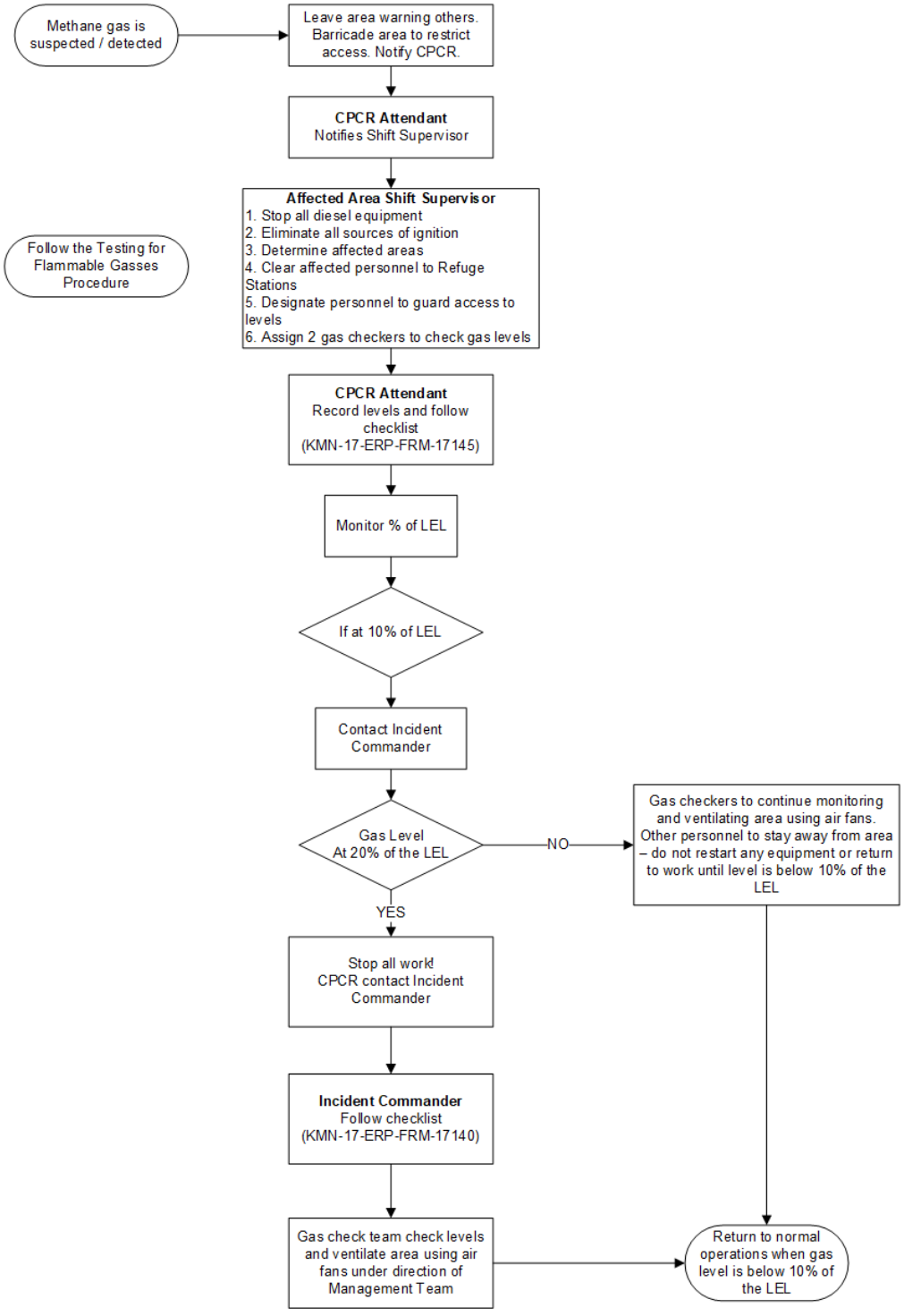
SO2 gas emissions have a distinct odour similar to burning sulphur. SO2 can be detected in a number of ways:

- Taste
- Smell
- Heat
- Burning eyes
- Personal gas monitors

If SO2 is detected, leave the affected area immediately, and, if possible, fence off access to the area. Contact CPCR immediately. Advise any personnel working near the area to remain clear of the area and report to the Refuge Station. Follow any directions given by the Shift Supervisor.

B.7 Methane:

METHANE INCIDENT PROCESS FLOW


Methane gas is suspected / detected
Leave area warning others. Barricade area to restrict access. Notify CPCR.
CPCR Attendant
Notifies Shift Supervisor
Affected Area Shift Supervisor
1. Stop all diesel equipment
2. Eliminate all sources of ignition
3. Determine affected areas
4. Clear affected personnel to Refuge Stations
5. Designate personnel to guard access to levels
6. Assign 2 gas checkers to check gas levels
Follow the Testing for Flammable Gasses Procedure
CPCR Attendant
Record levels and follow checklist
(KMN-17-ERP-FRM-17145)
Monitor % of LEL
If at 10% of LEL
Contact Incident Commander
Gas Level
At 20% of the LEL
NO
Gas checkers to continue monitoring and ventilating area using air fans. Other personnel to stay away from area – do not restart any equipment or return to work until level is below 10% of the LEL
YES
Stop all work!
CPCR contact Incident Commander
Incident Commander
Follow checklist
(KMN-17-ERP-FRM-17140)
Gas check team check levels and ventilate area using air fans under direction of Management Team
Return to normal operations when gas level is below 10% of the LEL

Methane Incident Overview

Methane gas is encountered primarily during diamond drilling and can continue to be released from these holes. Methane is explosive in concentrations between 5% and 15% of the underground mine atmosphere. Signs of methane might include unpleasant odours or bubbling gas in a drill hole or water.

Common terms used in monitoring levels of methane are described in the table below:

Term	Description
General Mine Atmosphere	Any point at least 0.3 meters (one foot) from the back, floor, or walls in a mine, and at least 0.9 meters (three feet) laterally away from the collar of a borehole or other openings that can release gas into the underground mine.
LEL	Lower Explosive Limit

Gas Monitoring

All diamond drills are equipped with methanometers located within several feet of the active drill hole collar, which will automatically de-energize the drill when combustible gas levels rise above 10% of the LEL. Drills cannot reactivate until methane concentrations drop below 10% of the LEL.

Portable monitors appropriate for combustible atmospheres are available at 4700 Collar Refuge Station or the Mine Rescue Room.

Methane Monitoring

Methane suspected, unknown concentration:

- Shut down any electrical or diesel equipment in the area.
- Install barricades to restrict access.
- Leave the area and warn others.
- Notify CPCR immediately.

At or above 10% of LEL:

- Ensure any remaining electrical or diesel equipment in affected area has been shut down and improve ventilation if possible.
- Review fenced off areas to ensure restricted access. Leave the area and warn others.
- Notify CPCR immediately.

At or above 20% of LEL:

- Stop all work and notify anyone working on the level to retreat to the Refuge Station.
- Post guards on the fresh-air side to further restrict access.
- Notify CPCR immediately.

Central Monitoring Alarm activated:

- Stop all work and warn anyone on the level to clear the area and retreat to Refuge Station.
- Notify CPCR immediately.

At or above 40% of LEL:

- All work must stop, and emergency evacuation procedures implemented for the affected level(s).

Open flames are not permitted in areas with suspected methane gas contamination.
At 100% of LEL Reporting requirements to the MOL under Regulation 854 Section 21 5 (b).

B.8 Water Management During Large Rain Events

For managing water during large rain events refer to the following documents:

- Water Management Program (KMN-08-OP-PRG-00009)
- Spring Run-off Walkthrough Procedure and Checklist" (KMN-08-CT-PRO-00006)

B.9 Spill Underground

If a spill of 45 gallons or greater is discovered underground:

1. Stop the spill is safe to do so.
2. Contain the spill and isolate the area.
3. Immediately contact CPCR.
4. Complete the internal Environmental Incident Report From (KMN-15-ENV-FRM-00001) and submit to Environmental Department by end of shift.

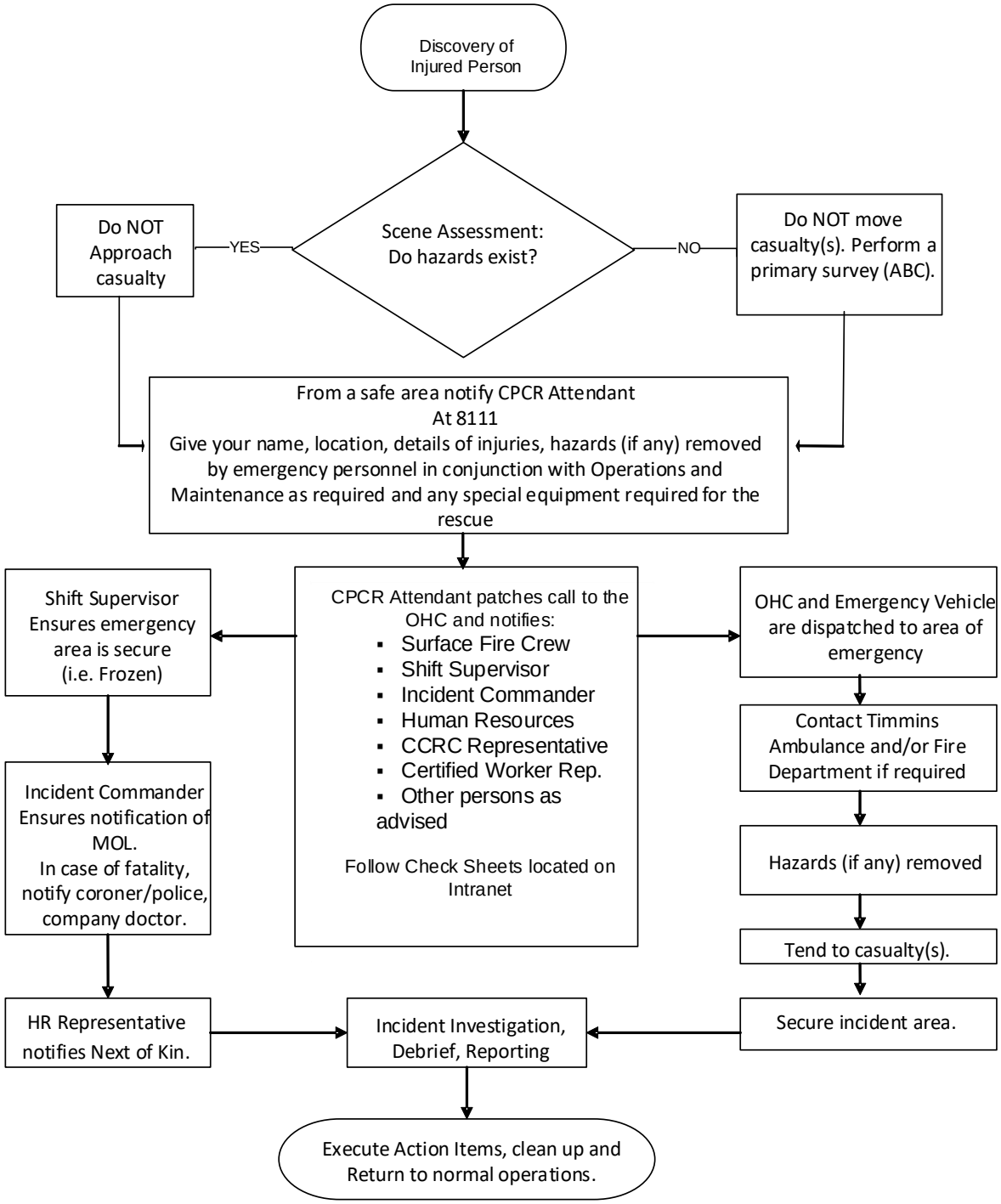
The Environmental Department will determine the appropriate follow up action, depending on the amount of the spill material and if it discharges to the natural environment.
Refer to the following documents:

- Environmental Incident Response and Reporting Procedure (KOP-ENV-SOP-00005)
- Spill Prevention, Contingency and Environmental Emergency (E2) response plan (KMN-ENV-PLN-00004)
- CPCR Attendant – Environmental Incident Response (KMN-10-ENV-SWI-00001)
- Checklist – CPCR Attendant – Spill Response (KMN-17-ERP-FRM-29140)
- Internal Environmental Report Form (KMN-15-ENV-FRM-0001)
- External Environmental Incident Report Form (KMN-15-ENV-FRM-0002)

C. Functional Plans (Surface Emergencies)

C.1 Critical Injury (Surface):

SURFACE CRITICAL INJURY PROCESS FLOW



Discovery of Critically Injured Casualty

Upon arriving at an incident scene, the first action to take, for your safety and the safety of any victims, is to perform a hazard assessment:

- Are there any electrical hazards?
- Is there a leak of hazardous material?
- Is there a risk of fire or explosion?
- Is there a danger of becoming a victim if you approach the scene?

“DO NOT ATTEMPT TO RESCUE INJURED PEOPLE UNTIL ALL HAZARDS ARE UNDER CONTROL!”

If, after completing the hazard assessment it has been determined that it is safe to approach the victim(s), perform a primary survey, following the ABC’s: Airway – Breathing – Circulation.

Be sure to check for airway obstruction, proper breathing, and major arterial bleeding. Do not move the victim(s) unless life-threatening conditions exist. Be cautious of spinal injury and take all precautions to prevent further injury. Alert the Central Process Control Room (CPCR) Attendant at extension 8111 or use radio.

If you are not near a phone, send someone for help – do not leave the victim(s) unattended if possible. Report the following information to the CPCR Attendant:

- Your name
- Name of victim(s), if known
- Location of incident
- Extent of injuries or what happened, if known

Send someone to the nearest entrance to incident area to wait for the Shift Supervisor. Unless for the purpose of saving a life / relieving human suffering or to prevent further damage to property, do NOT disturb the incident scene (i.e., move or remove anything) until an investigation has taken place.

If hazards exist that threaten your safety, DO NOT approach the victim(s). From a safe location, alert the Central Process Control Room (CPCR) Attendant at extension 8111 or use radio. Report the following information:

- Your name
- Name of victim(s), if known
- Location of incident
- Extent of injuries or what happened, if known
- The hazards that exist if any
- The need for any special equipment

Stay clear of the incident area and guard or install a ‘B’ barricade until rescue personnel have arrived.

Reporting Requirements

- Refer to MOL notification / reporting requirements for a critical injury or fatality.
- Refer to Ministry of Labour notification / reporting requirements for incidents, explosions or fire causing disabling injury or failure of any engineered device: Dam failure, run of material, floods, etc. See Notice and Reporting Under the Act, Sections 51 to 53 & Reg. R.R.O 1990 Reg 854, s. 21
- Please refer to KSS for the Incident Investigation Report.

C.2 Energized Systems:

ENERGIZED SYSTEMS (LIGHTNING & ELECTRICITY)

Accidents involving high voltage systems including electrical power lines or lightning can result in severe injuries or death. When the electrical flow reaches the ground, it spreads out like ripples in a pool of water.

Emergency Response Following a Lightning Strike (Witness)

Victims of lightning strikes are not always in a fatal situation. Typically, a lightning strike will cause cardiac and / or respiratory arrest that can be corrected by proper resuscitation (CPR). Many lightning related deaths occur when the victim does not receive prompt medical attention.

If you witness a lightning incident, it is imperative to follow the below steps:

- Survey the scene for safety.
- Activate the Emergency Response System by calling 8111 (CPCR)
- If necessary, move the victim with care to a safer location.
- Evaluate airway, breathing and circulation and begin CPR if necessary and trained.
- Evaluate and treat for hypothermia, shock, fractures and/or burns.

Emergency Response Following a Lightning Strike (Person)

Electricity seeks all paths to the ground and that path may include mobile equipment. If a part of the mobile equipment you are operating comes in contact with lightning, then anything in contact with your equipment will also become energized. The earth itself will become energized for some distance around your unit.

- If electrical contact is made, stay in your vehicle or mobile equipment. You are relatively safe inside your vehicle as long as you do not touch or step onto anything outside the vehicle that will provide a path for the current to flow to ground.
- Once the storm has passed, and if the vehicle / equipment is not damaged, slowly drive out of the energized area, at least 10 meters (33 ft.) clear of the ground strike and any wet ground.
- Because of the danger of exploding tires, large mobile equipment with inflated rubber tires should be moved to an open area 300 metres away from workers and other equipment. There is a danger of tires exploding for up to 24 hours.

- If you must abandon your vehicle because of an emergency such as a fire, be aware of the possibility that the ground below your machine is energized and use extreme caution.

- To make a safe escape, keep both feet together, hands by your side, and make a short jump from your vehicle. The goal is to ensure that your entire body clears the vehicle and that you land on your feet without stumbling. Do not allow any part of your body to touch the vehicle while you are touching the ground. Do not take steps away from the vehicle. It is safest to hop or shuffle away without moving your feet more than a few centimeters (a couple of inches) at a time. Keeping your feet together will ensure that you do not straddle two zones with different voltages.

Discovery of a High Voltage Energized System (Responsibilities of Worker)

Power lines can be brought down in a number of situations including storms, lightning, trees, ice, motor vehicle accidents and contact with overhead equipment (i.e. cranes, hoists, backhoes). Even if the power line does not come down, if it is in contact with a tree, vehicle, or mobile equipment, the ground can be energized, along with the tree, vehicle, or equipment.

The following safe work practices should be considered if you come across an energized system:

- Treat downed lines and anything in contact with a power line as energized. Energized wires seldom leap about and give off sparks, so you have no way of knowing whether or not they are energized.
- Call the Kidd Emergency number 8111 (CPCR) and report the emergency.
- When you arrive at the scene, park your vehicle well away from any downed lines. At night, shine a flashlight through the window to make sure you are not parked anywhere near a downed power line.
- Stop traffic and keep people clear. The ground surrounding a downed line will be energized. If a live wire comes in contact with a vehicle, or anything else, that object becomes energized. Secure the area and keep everyone back at least 10 meters (33 ft.)—more if the voltage is over 60 kV (60,000 V).
- Do not let yourself become a victim. Regardless of how badly someone is injured, you cannot help if you are electrocuted. Never touch anything that is in contact with a downed power line, including injured or trapped victims, puddles, vehicles, or trees.

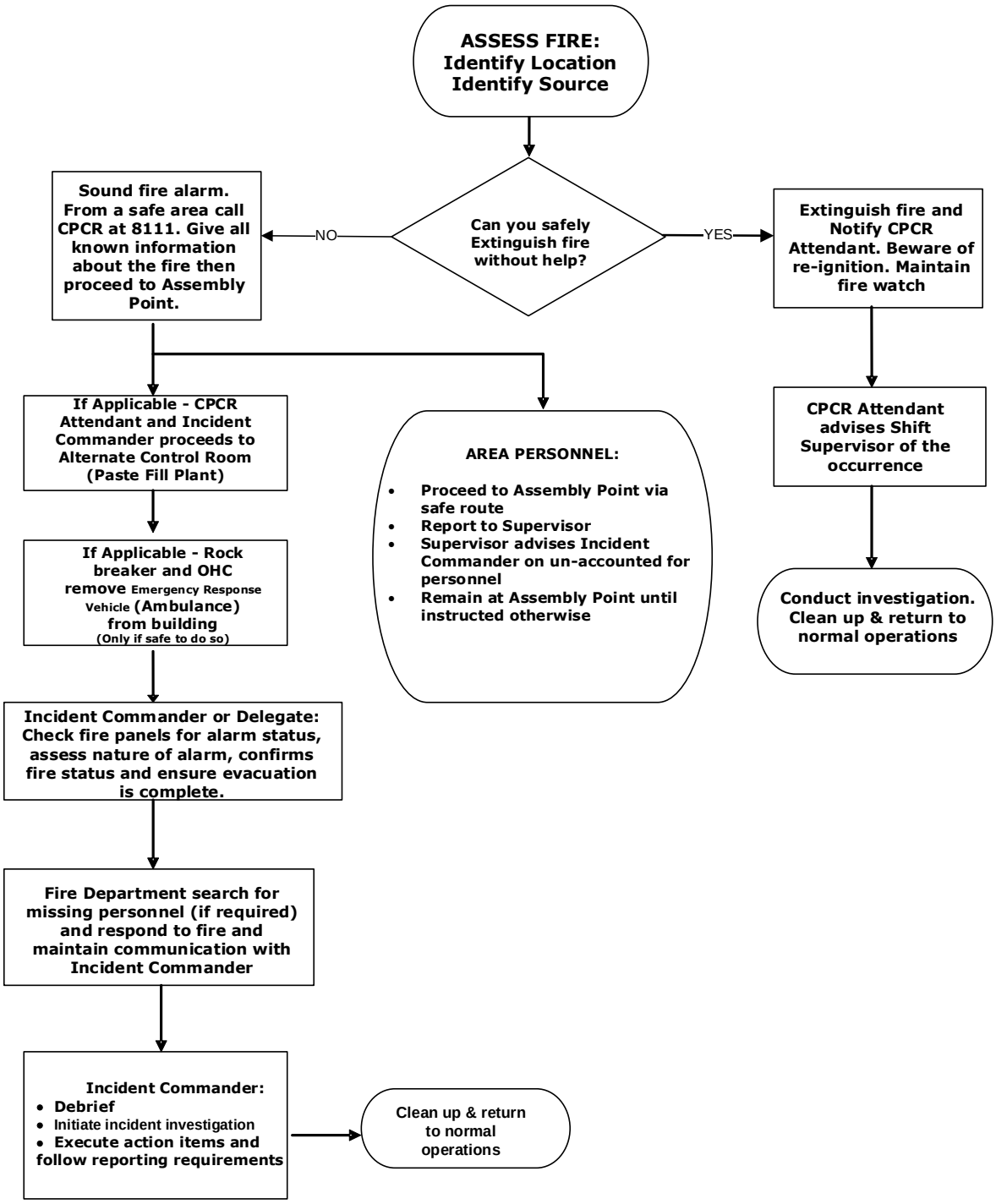
Discovery of a High Voltage Energized System (Responsibilities of Incident Commander)

- A member of the Incident Command team will contact Hydro One immediately, along with the Mine Rescue team and 911.
- Accept confirmation that the system has been de-energized and is safe only from a representative of the power system who is on-site, or a trained Electrical Maintenance employee.
- Rescue workers should not enter an area that might be energized. Anyone trying to reach an injured worker in an energized area would be exposed to the same danger of step potential. The power lines must be de-energized and grounded before rescue workers can approach.

Reference KOP-SAF-GDL-00015 Lightning Guideline for additional information. For information pertaining to working around powerlines, please reference KOP-MTC-GDL-00002 Working Around Power Lines Guideline.

C.3 Surface Building Fire:

ADMINISTRATION OR SURFACE BUILDING PROCESS FLOW



Discovery of a Surface Fire (Responsibilities of Worker)

If you discover a fire, stay calm. Do not panic. Assess the situation – can you safely extinguish the fire?

If you can safely extinguish fire:

- Use the appropriate extinguishing agent for the fire. Do not use water on fires where electricity may be involved or with chemicals that react with water.
- Ensure that the fire is extinguished completely.
- Beware of re-ignition.
- Maintain a fire watch.
- For vehicle / equipment fires, apply the brakes and shut off the vehicle / equipment.
    - If the vehicle's tires are on fire, barricade the vehicle and retreat to a minimum distance of 300 metres away. Do **NOT** attempt to put the tire out.
- Use the fire extinguisher mounted on the vehicle. If the vehicle is equipped with a fire suppression system, activate the system.
- Report occurrence to your Shift Supervisor immediately.

If you cannot safely extinguish the fire:

- If you cannot safely extinguish the fire (i.e., the fire is out of control) or the source of smoke is unknown, pull the fire alarm and evacuate the building via the nearest and safest exit.
- In the case of vehicle / equipment fires, keep clear of the vehicle / equipment and warn others to do the same.
    - If the vehicle's tires are on fire, barricade the vehicle and retreat to a minimum distance of 300 metres away. Do **NOT** attempt to put the tire out.
- From a safe location call the CPCR Attendant (8111) and give the following information:
    - Your name and payroll number.
    - The location, type, and size of fire.
    - Any injuries, if known.
- Proceed to Assembly Point and remain in area for head count and the "All Clear" notice.

Because of the danger of exploding tires, large mobile equipment with inflated rubber tires should be moved to an open area 300 metres away from workers and other equipment. There is a danger of tires exploding for up to 24 hours.

When a fire alarm sounds, everyone in the affected building must:

- Evacuate the building in an orderly manner, shutting down any equipment, tools, or torches that you were using and shutting all doors (not locked) on the way out.
- Assemble at the pre-determined assembly points (Located in the Administration Building Parking Lot)

- Supervisors will verify their department personnel at each of their department assembly points and inform the Incident Commander of any missing persons.
- Wait for further instruction by the Incident Commander and/or Senior Management Representative.

Incident Commander Responsibilities

- Consider wind direction and smoke in relation to underground ventilation.
- If underground personnel begin calling enquiring about the smell of smoke, the decision to hoist will be made by the Management Team based on the conditions at the time.

Supervisor

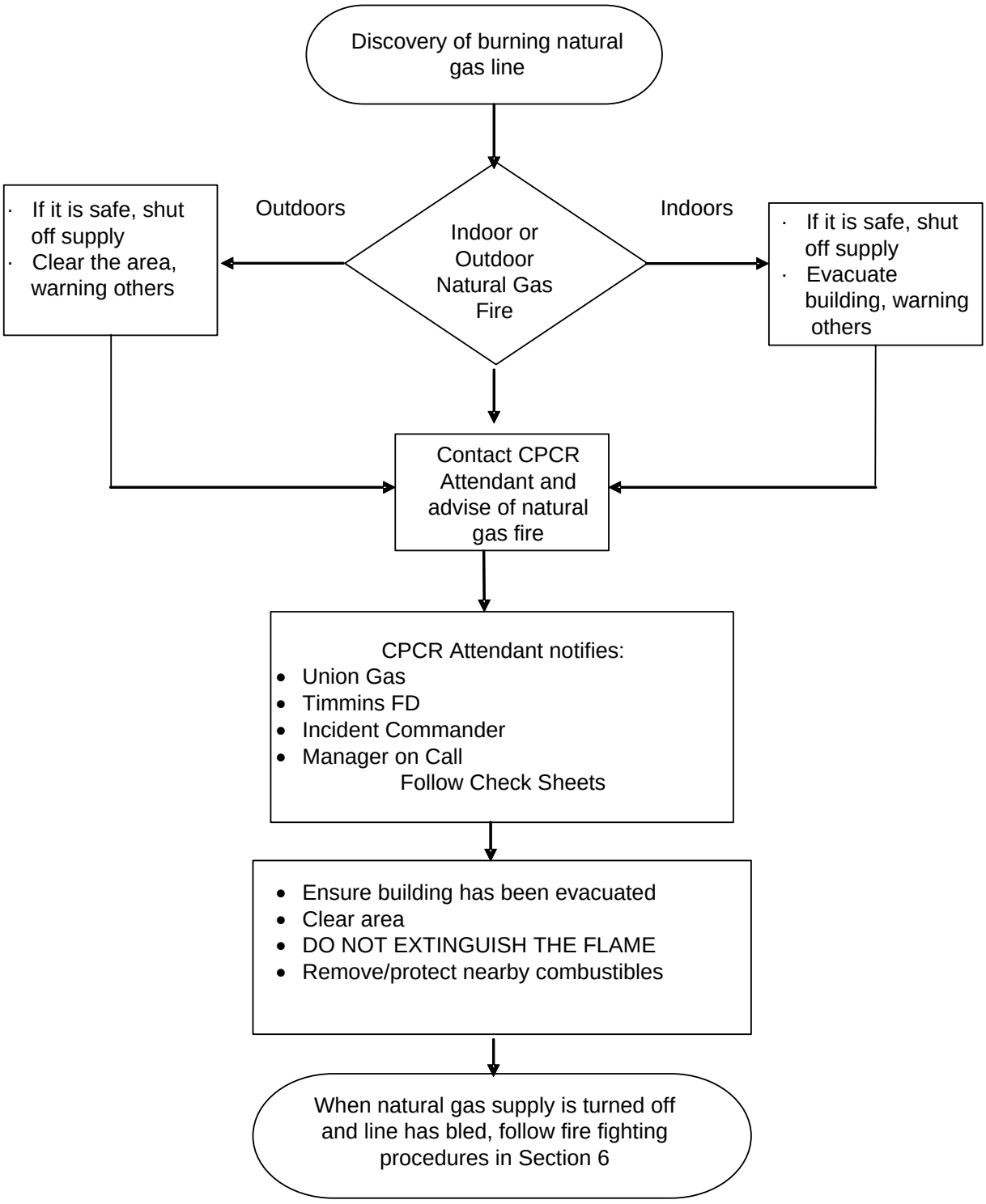
- Supervisor or delegate works with CPCR to compare Emergency Evacuation Checklist to the tags on the board to ensure all workers are accounted for.

Available Service Water

A drawing of the available surface water sources is available and located on the Kidd Operation's home page under the heading Sustainable Development and Environmental, Health and Safety – Emergency Response Plan – Mine Site – ERP Reference Documents – Fire Hydrant Water.

C.4 Natural Gas Fire:

NATURAL GAS FIRE PROCESS FLOW



Discovery of Natural Gas Fire (Responsibilities of Worker)

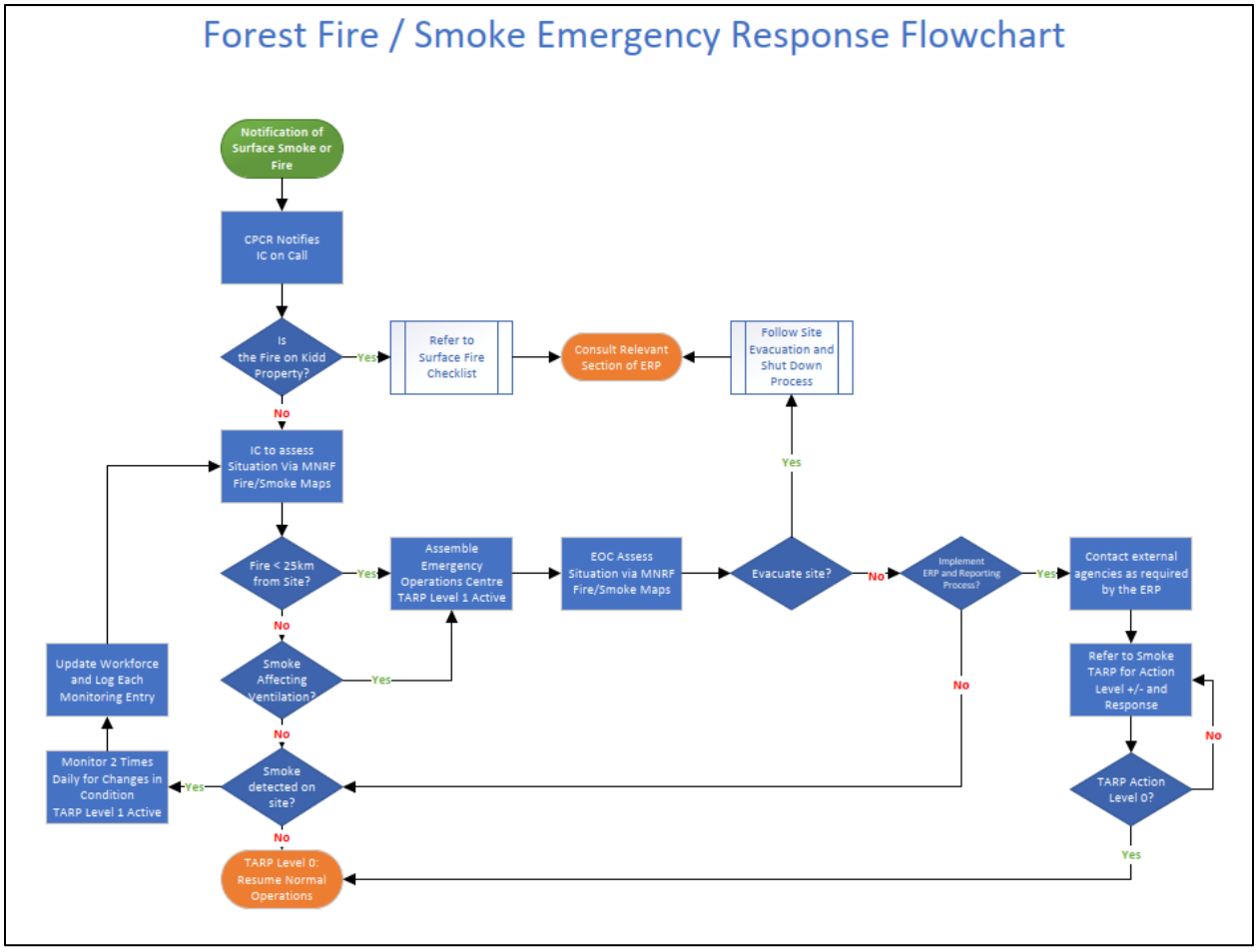
If you discover a natural gas fire outside, determine if you can safely shut the natural gas line valve. If this is not safely possible, leave the area immediately, warning all others to evacuate the area. If the line fire occurs indoors, follow the evacuation procedures outlined in Section C.3.: Surface Fires – Administration Building.

Call the CPCR Attendant immediately at 8111 and advise of the natural gas fire and the location. Isolate Natural Gas Fire – do not extinguish until gas is shut off.

Incident Commander Responsibilities

- Consider wind direction, smoke, and natural gas cloud in relation to underground ventilation.
- If underground personnel begin calling enquiring about the smell of smoke or natural gas, the decision to hoist will be made by the Management Team based on the conditions at the time.

C.5 Forest Fire / Smoke Process Map:



Discovery of Forest Fire Smoke Impact on Site

When smoke is detected on the property, the CPCR Attendant must immediately contact the Ministry of Natural Resources at 310-3473 to determine the nature and origin of the smoke. All information must be recorded in writing and given to the Emergency Control Team Commander.

Hydro One must be contacted to ensure that the power supply to the mine site is not threatened because of forest fire activity. (Hydro One: 1-866-384-4743) Follow contact process.
If electrical power supply to the mine site is threatened, back-up power supply to Aux cages must be tested immediately.

- All hot work is to be suspended.
- All confined space work is to be halted.
- A fire watch protocol is to be implemented.
- All shaft stations and shaft electrical substations periodically inspected.
- Carbon monoxide is to be monitored.
- Surface atmospheric particulate matter monitored.
- No new construction involving the use of wood will take place.
- Underground mine air flows will be verified by the ventilation group.

The workforce must remember the following important items:

- No mobile equipment is to be left unattended while idling.
- People must remain attentive to tasks being performed and to the potential sources of ignition during this time.
- The Incident Commander will consider wind direction and smoke in relation to underground ventilation.
- If underground personnel begin calling enquiring about the smell of smoke, the decision to hoist will be made by the Management Team based on the conditions at the time.

Monitor fire/smoke situation with Timmins Fire Department by Safety Supervisor and forwarded to Management Team. Request an Orica representative sent to Kidd Mine Site to assist in managing the situation.

When the Ministry of Natural Resources issues an extreme fire hazard warning for Northeastern Ontario, this procedure should be reviewed with all persons involved with the emergency control group.

Process map (C.5) will be used in conjunction with the Triggered Action Response Plan (C.6) to ensure that appropriate actions are taken by Incident Commanders in the event of fire/smoke affecting Kidd Creek Mine.

C.6 Forest Fire / Smoke *Trigger Action Response Plan* (TARP):

Action Level ->	0	1	2	3	4
Action Level Definition	No sign of forest fire/smoke.	Forest fire/smoke/smoke scent detected on site.	Forest fire/smoke continues impacting site.	Forest fire/smoke continues impacting site.	Forest fire/smoke continues impacting site.
Trigger Criteria to Upgrade to this Action Level	Not Applicable.	Dust Monitor PM2.5 (TWA8hr): 5.0 - 35.4µg/m3 **OR** CO Monitor Reading: 1.0 - 15.0ppm	Dust Monitor PM2.5 (TWA8hr): 35.5ppm - 250.4µg/m3 **OR** *CO Monitor Reading: 15.1 - 16.6ppm	Dust Monitor PM2.5 (TWA8hr): 250.5ppm - 500.3µg/m3 **OR** *CO Monitor Reading: 16.7 - 24.0ppm	Dust Monitor PM2.5 (TWA8hr): 500.4 + µg/m3 **OR** CO Monitor Reading: 24.1+
Trigger Criteria to Downgrade to this Action Level	No detection of smoke for 6hrs. **AND** No detection of CO for 6hrs.	Smoke below threshold 35.5ppm for 6hrs. **AND** CO levels below 15.1ppm for 6hrs.	Smoke below threshold of 250.5ppm for 6hrs. **AND** CO levels below 16.7ppm for 6hrs.	Smoke below threshold of 500.4ppm for 6hrs. **AND** CO levels below 24.1ppm for 6hrs.	Not Applicable.
Monitoring Duties Required at this Action Level	None.	MNR Forest Fire Info Map Smoke Forecast (FireSmoke.ca) Control & Automation Interface IC to monitor and record air quality measurments 2x daily (every 12hrs) or as determined by the IC.	MNR Forest Fire Info Map Smoke Forecast (FireSmoke.ca) Control & Automation Interface Increased frequency of monitoring/recording to 4x daily (every 6hrs).	MNR Forest Fire Info Map Smoke Forecast (FireSmoke.ca) Control & Automation Interface Increased frequency of monitoring/recording to 8x daily (every 3hrs).	MNR Forest Fire Info Map Smoke Forecast (FireSmoke.ca) Control & Automation Interface Monitoring activities continue until action level reduction allows for operations to resume.
Communications Required at this Action Level	None.	Notify workforce Kidd Operations is aware of the situation, is actively monitoring particulate matter (smoke) and carbon monoxide and advise of applicable work restrictions.	Notify workforce of changes in monitoring frequency and operations.	Notify workforce of changes in monitoring frequency and operations.	Communicate the work stoppage to workforce, management team, corporate etc.
Changes to Operation Required at this Level	Normal Operations.	See ERP for work restrictions (i.e. stopping hot work, fire watch implemented etc.) **No work shift restrictions in effect at this action level.** **N95 Respiratory Protection: Not Required** *(Other Respiratory Protection Requirements Still Apply)*	See ERP for work restrictions (i.e. stopping hot work, fire watch implemented etc.) ***Work shifts are not to exceed 10.5hrs in case of CO exposure - new crews are an option.** **N95 Respiratory Protection: Voluntary** *(Other Respiratory Protection Requirements Still Apply)*	See ERP for work restrictions (i.e. stopping hot work, fire watch implemented etc.) ***Work shifts are not to exceed 8.0hrs in case of CO exposure - new crews are an option.** **N95 Respiratory Protection: Mandatory** *(Other Respiratory Protection Requirements Still Apply)*	**Work Stoppage.** **Follow Site Evacuation and Shut Down Process.**

Discovery of Forest Fire with Potential Impact on Site

If a forest fire is discovered with the potential to impact the Kidd Mine Site, contact the CPCR Attendant immediately. When forest fire is reported within 25 km of the site, the CPCR Attendant must immediately contact the Ministry of Natural Resources at 310-3473 to obtain all possible information regarding the fire.

All information must be recorded in writing and given to the Emergency Control Team Commander, including potential for road closure and evacuations.

Hydro One must be contacted to ensure that the power supply to the mine site is not threatened because of forest fire activity. (Hydro One: 1-866-384-4743) Follow contact process.
If electrical power supply to the mine site is threatened, back-up power supply to Aux cages must be tested immediately.

The Incident Commander must consider wind direction and smoke in relation to underground ventilation.

If underground personnel begin calling enquiring about the smell of smoke, the decision to hoist will be made by the Management Team based on the conditions at the time.

In the event of an escalation, the Emergency Operations Centre may make the decision to evacuate the site.

C.7 Orica Explosives:

FIRE INVOLVING / NEAR ORICA EXPLOSIVES MAGAZINE

Orica Canada operates an explosives storage and distribution facility at the Kidd Mine Site on land leased from Kidd Operations, Mine Site. The explosive magazines are located north of the mine in the North half of Lot 4, Concession 6 of Kidd Township. Access is controlled through a locked gate (the key may be obtained from Orica Personnel).

There are two types of magazines at this storage facility. (Explosive and Detonator magazine) These magazines have storage capacities of 120,000 kg of explosives and 1,000,000 detonators, respectively.

If fire or heat threatens an explosive product, or if an explosion has occurred, evacuate all personnel within a 1,600-metre (1.6 km) distance in all directions. (Including the north side of the Administration building) No attempt is to be made to fight a fire in any explosive's magazine. Maintain that distance until at least one hour after all explosions and/or after the resultant fire has burned itself out.

Incident Commander must also consider the potential impact on the underground (i.e.: infrastructure, ventilation, wind direction).

For more information on the Orica Emergency Response Plan visit the Kidd Operations Homepage – Sustainable Development and Environmental, Health & Safety – Emergency Response Plan (Mine & Concentrator) Kidd Mine – Reference Documents.

Duties of CPCR Attendant

- 24 HR Emergency Number - 1-877-561-3636 (ORICA)
- Notify the Flight Services Station at the Timmins Airport (705-264-6006) and request that the air traffic be rerouted away from the Kidd Mine Site until further notice.
- Request an Orica representative sent to Kidd Mine Site to assist in managing the situation.
- Ensure reporting requirements are met.

Reporting Requirements

- Refer to Ministry of Labour notification / reporting requirements for incidents, explosions, etc., at a project site or mine. (See Notice and Reporting Under the Act A.S. 51 to 53 & Reg. R.S. 21)
- Refer to KSS for the Incident Investigation report format.
- Depending on the emergency situation and if injuries were sustained - Incidents,
- Explosions or fire causing disabling injury, Critical injury, or fatality. Refer to Ministry of Labour notification.

C.8 Dam Overtopping:

RESPONSIBILITIES OF EMPLOYEES

A series of diversion ditches and dams direct contaminated surface runoff water and underground mine dewatering to the Mine Water Treatment System. A second, outer series of ditches and dams intercept clean surface runoff, thus minimizing the volume reporting to the treatment facility. Should any of these dams or ditches overtop and fail, there is a significant risk to the environment due to high volumes of contaminated water potentially being released. The following procedures shall apply when a critical dam is overtopped on surface.

Upon discovery of a critical dam emergency (overtopping or seepage):

- Contact the CPCR Attendant immediately, via radio or phone 8867.
- Provide the following information:
- Type of emergency (seepage, dam break, overtopping, etc.)
- Location of emergency
- Rate of Flow (trigger flow rate calculation using dye)
- Refer to KMN-17-ERP-FRM-25140 - Checklist - Environmental Department - Dam Overtopping and KMN-17-ERP-FRM-25141 - Checklist - CPCR Attendant - Dam Overtopping for more information.

C.9 Treatment Pond malfunctions / problems associated with flood conditions:

The wastewater treatment pond is designed to effectively treat a maximum of approximately 160,000 m3/day (two days retention at this rate). If the flow rates exceed this value, emergency mitigate measures must be initiated (please refer to Document KMN-10-ENV-MAN-00005 Water Management Manual).

Emergency measures must be initiated if any or all of these conditions apply:

- flow rate exceeds 200,000 m3/day (inlet to or discharge from treatment pond); or
- pH at the lime reactor discharge cannot be maintained > 10.5; or
- pH at the final effluent is less than 6.0 or greater than 9.0; or
- zinc values at Pond 1B discharge are >5.0 mg/L; or
- zinc values at Pond 2 (midpoint) are >1.0 mg/L; or carbon dioxide or lime supply is anticipated to be interrupted for any period to time that will affect adequate level of treatment.
- KMN-17-ERP- FRM-26142 - Checklist - Environmental Department - Flood, Periods of High Flow

C.10 Low pH or High Zinc under Flood Conditions

Refer to Document: KMN-17-ERP-FRM-26141 - Checklist - Environmental Department - Flood, Low pH, or High Zinc.

If the pH in the lime reactor discharge cannot be maintained > 10.5 by the lime plant, or if the lime supply to the reactor is jeopardized, the following contingency measures will apply:

- Arrange for slurried lime to be delivered from: Concentrator site OR Lime Supplier
- Have the slurried lime delivered to the appropriate location in ponds. The locations will be determined by the sample results. Ensure adequate supervision during this process. The specific location of the failure may affect access to ponds to treat and will be handled on a site-specific basis.
- Monitor pH and zinc values twice daily as a minimum, to track the effects of the slurried lime addition.
- Ensure ferric sulphide addition system is functional and raise the flocculant addition rate to maximum capacity to aid in precipitation.
- Complete incident report, initiate investigation and complete the Review.
- Record how many trucks were delivered and the location they were delivered to.

C.11 High pH (No Carbon-Dioxide or Carbon-Dioxide Plant Malfunction)

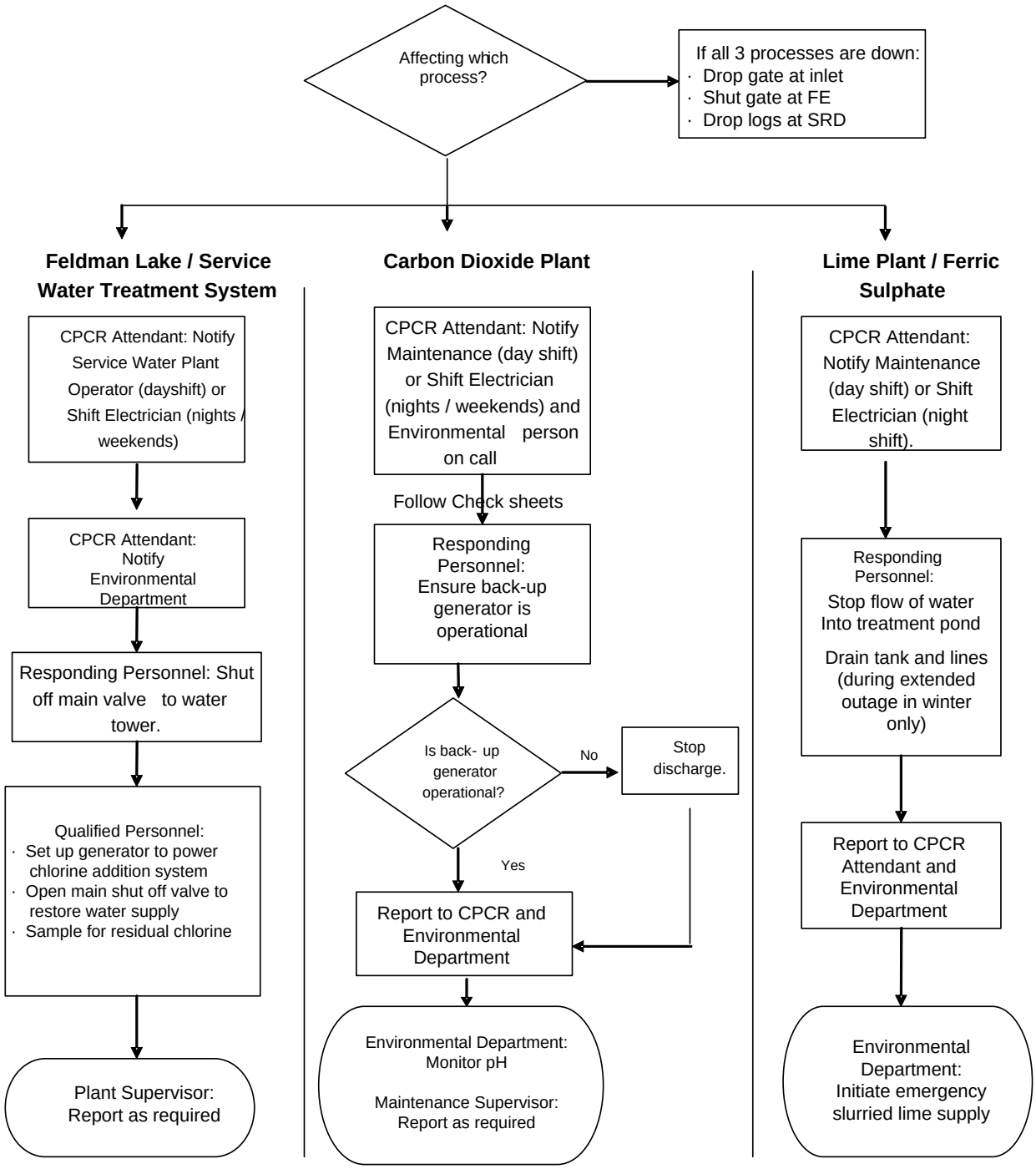
During extremely high flows through the treatment ponds where the Carbon Dioxide (CO2) Plant is not effective in reducing the pH to acceptable levels (i.e., less than 9.5), or if the supply of CO2 is in jeopardy, the following emergency measures will apply: Refer to document: KMN-17-ERP-FRM-26140 - Checklist - Environmental Department - High pH.

C.12 Major Malfunction / Breakdown of Wastewater Treatment Systems

It is essential that the Wastewater Treatment Systems operate efficiently and properly to ensure effective treatment prior to discharge to the environment. Unforeseen breakdowns can cause unplanned outages of the treatment plants, which can be considered emergencies under certain conditions.

Under all conditions, if either the Carbon Dioxide or Lime supply or treatment is anticipated to be interrupted for any period of time, the emergency measures are located in section C.10 and C.11

C.13 Unplanned Power Outage Affecting Environmental Controls:



UNPLANNED POWER OUTAGE PRIORITIES

Unplanned power outages must be responded to in a manner that will ensure the health and safety of personnel. The second priority during a power outage will be the potential impacts on the natural environment.

There are three (3) critical areas on surface that may have an impact on the health of employees and the environment during an unplanned power outage. The table below outlines the environmental and health response priorities:

Priority	Area / Plant Affected	Potential Impacts
1	Carbon Dioxide pH Suppression System	Environment / Regulatory
2	Lime Plant and Chemical Dosing System (ferric sulphate)	Environment / Regulatory
3	Feldman Lake (Service Water Supply and Treatment)	Health

POWER OUTAGES AFFECTING THE CARBON-DIOXIDE pH SUPPRESSION SYSTEM

It is essential that the Carbon Dioxide Plant is operational at all times. The first option during an unplanned outage is to shut down flow immediately IF pond capacity allows.

The CO2 Plant is equipped with a back-up diesel generator to ensure that power outages do not affect the plant. The backup should be used only when flows cannot be stopped.

A short-term power outage at the CO2 Plant may cause non-compliance with government regulation, resulting in possible fines to individuals, management, and the company.

In order to ensure that the CO2 Plant remains operational during a power outage the duties and checklist procedures will apply:

- KMN-17-ERP-FRM-28143 - Checklist - Maintenance - Power Outage, CO2 pH Suppression System
- KMN-17-ERP-FRM-28144 - Checklist - CPCR Attendant - Power Outage, CO2 pH Suppression System
- KMN-17-ERP-FRM-28145 - Checklist - Environmental Department - Power Outages Affecting Carbon Dioxide pH Suppression System

LIME PLANT INTERRUPTION OF SERVICE OR SUPPLY ISSUES

If the pH in the Lime reactor discharge cannot be maintained >10.5 by the lime plant, or if lime supply to the reactor is jeopardized, follow the Checklists for Lime Plant

- KMN-17-ERP-FRM-28146 - Checklist - CPCR Attendant - Power Outage, Lime Plant and Chemical Dosing System
- KMN-17-ERP-FRM-28147 - Checklist - Maintenance - Power Outage, Lime Plant & Chemical Dosing
- KMN-17-ERP-FRM-28148 - Checklist - Environmental Department - Power Outage, Lime Plant and Chemical Dosing System

FELDMAN LAKE (SERVICE WATER SUPPLY AND TREATMENT)

If there is a power interruption or service interruption for any reason, follow the Checklist for Service Water system.

- KMN-17-ERP-FRM-28140 - Checklist - CPCR Attendant - Power Outage affecting Service Water System
- KMN-17-ERP-FRM-28141 - Checklist - Plant Operator - Power Outage affecting Service Water System
- KMN-17-ERP-FRM-28142 - Checklist - Environmental Department - Power Outage affecting Service Water System

DEPOSIT OUT OF THE NORMAL COURSE OF EVENTS

(Fisheries Act – R.S.C. 1985; Metal Mining Effluent Regulations SOR/2002-222)
As part of the requirements of the Fisheries Act – R.S.C. 1985; Metal Mining Effluent Regulations, the following items included in this section are required to address the need for a response plan. This section will refer to documents or describes the measures to be taken in respect of a deleterious substance to prevent any deposit out of the normal course of events and mitigate the effects of such a deposit.

Out of the normal course of events or deposits includes any environment incident that can reasonably be expected to result in damage or danger to fish habitat or fish or the use by man of fish. These incidents include but are not limited to final effluent parameter exceedance (MMER/MISA); discharge of a liquid, solid or gas contaminant; fires involving liquid, solid or gas contaminant; and floods or power outages causing water treatment malfunctions or dam failures.

Please refer to KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure for a more detailed description of a deposit. Follow KOP-ENV-FRM-00006 Checklist - Environmental Response - Deposit Out of Normal Course of Events to respond to this event.

PREVENTION, PREPAREDNESS AND RESPONSE MEASURES

Every reasonable and possible measure must be taken to prevent, prepare and respond to a deposit. The following documents should be used as reference to address the requirements to prevent, prepare and respond to a deposit out of the normal course of events.

Refer to section 4.3.1 of KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure for a more detailed description of the incident prevention and mitigation measures.

Refer to KMN-15-ENV-PLN-00001 Spill Prevention and Contingency Plan for a more detailed description of the incident prevention, contingencies, and response measures.

EMERGENCY RESPONSE ROLES AND RESPONSIBILITIES

Individuals who are responsible for implementing the plan in the event of an incident have been assigned their roles during the annual job description and action plan meetings with their supervisors. The following documents should be used as reference to describe their individual roles and responsibilities in the event of a deposit out of the normal course of events.

Please refer to section 4.2 of KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure for a more detailed description of the individual responsibilities regarding an environmental incident.

ENVIRONMENTAL EMERGENCY RESPONSE TRAINING

Individuals who are required to implement the plan are required to attend various training sessions to prevent, prepare and respond to a deposit out of the normal course of events. All individuals who perform work onsite (employees or contractors) receive the Environmental Awareness Presentation, which describes the environmental incident response procedures associated with working at the Kidd.
Mine site. The following documents should be used as reference to describe the individual training needs.

Refer to KOP-ENV-SOP-00012 Environmental Competence, Training and Awareness Procedure and KMN-03-HR-PRO-00010 Training Needs Analysis Procedure for a detailed description of environmental training needs for all employees.

Refer to KMN-15-ENV-PLN-00001 Spill Prevention and Contingency Plan for a more detailed description of training needs regarding incident prevention, contingencies, and response.

ENVIRONMENTAL EMERGENCY RESPONSE EQUIPMENT

Emergency response equipment is available at or near every chemical storage area on site. Additional material to respond to environmental emergencies is also available at the Surface Warehouse. Refer to KMN-15-ENV-PLN-00001 Spill Prevention and Contingency Plan for a more detailed description of the emergency response equipment available (list and location) to respond to a deposit out of the normal course of events.

ALERT AND NOTIFICATION OF DEPOSIT

The appropriate alert and notification procedures must be followed in the event of a deposit out of the normal course of events.

Refer to section 4.12 of KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure for a more detailed description of the reporting requirements regarding an environmental incident.

Refer to KOP-HR-SOP-00015 Media Relations Procedure for a more detailed description of the reporting requirements regarding the notification of the members of the public who may be adversely affected by a deposit out of the normal course of event.

C.14 PCB Equipment, Storage Area Fire Protection and Emergency Protection:

(Canadian Environmental Protection Act S.C. 1999; PCB Regulations SOR/2008-273) As part of the requirements of the Environmental Protection Act S.C. 1999; PCB Regulations SOR/2008-273, following items included in this section are required to address the need for a response plan. This section will refer to documents or describes the measures to be taken in respect of an emergency situation that might occur at the prescribed PCB Storage site.

PCB EMERGENCY RESPONSE

The emergency response plan is tested at a minimum as per Appendix 4 of KMN-15-ENV-PLN-00001 Spill Prevention Contingency and Response Plan emergency drill schedule. Please refer to section E of this Emergency Response Plan for procedures regarding the scheduling and documentation of the emergency response drills.

- If a spill occurs from a piece of equipment that is suspected of containing PCBs, the response team should access the KMN-10-ENV-REG-00003 PCB and Non-PCB Equipment Inventory - Mine document. This list provides the concentrations of PCBs within the equipment.
- Any spill and contaminated clean-up materials coming from equipment containing oil with 50 mg/kg or more of PCBs is treated as waste PCB solids or liquids (Ontario Waste Code 243-D).
- Any spill and contaminated clean-up materials coming from equipment containing oil with less than 50 mg/kg PCBs is treated as non-hazardous waste if solid and as waste oil leachate toxic for PCB’s (Ontario Waste Code 252-T).
- Any spill and contaminated clean-up materials coming from equipment containing oil with less than 0.3 mg/kg PCB’s is treated as non-hazardous waste if solid and as regular waste oil (Ontario Waste Code 252-L).
- It is advised that emergency response personnel wear the appropriate PPE for PCB emergency response on all transformer leaks. The spill kit located at the PCB storage area has all required PPE to respond to such an emergency.

Refer to KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure and Appendix IV for detailed procedures regarding PCB Incident Response.

DOCUMENTATION OF PCB EMERGENCY RESPONSE

The most recent version of this Emergency Response Plan is located via the Kidd Mine Site intranet system. The most recent version of the KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure is located via the Sustainable Development Document Management system. A hard copy of these documents is also available for reference at the PCB storage site.

DISTRIBUTION OF PCB EMERGENCY RESPONSE DOCUMENTS

The most recent version of this Emergency Response Plan is located via the Kidd Mine site intranet system. The most recent version of the KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure is located via the Sustainable Development Document Management system. A hard copy of the applicable sections of these documents is also provided to the City of Timmins Fire chief for reference.

Please refer to the Distribution List at the front of this Emergency Response Plan for a list of other hard copy locations that may be applicable.

TRAINING OF PCB EMERGENCY RESPONSE

Individuals who are required to implement the plan and or are authorized to enter the PCB storage site are required to attend various training sessions to prevent, prepare and respond to an incident. Site or incident specific training may also be provided as required. All individuals who perform work onsite (employees or contractors) receive the Environmental Awareness Presentation, which describes the environmental risks associated with working at the Kidd Mine site. The following documents should be used as reference to describe the individual training needs.

Refer to KOP-ENV-SOP-00012 Environmental Competence, Training and Awareness Procedure and KMN-03-HR-PRO-00010 Training Needs Analysis Procedure for a detailed description of environmental training needs for all employees.

Refer to KOP-ENV-PLN-00004 Spill Prevention Contingency and Environmental Emergency Response Plan for a more detailed description of training needs regarding incident prevention, contingencies, and response.

FIRE ALARM SYSTEM FOR PCB STORAGE

A portable fire extinguisher is available for use outside of the PCB storage site in the event of a fire at the area. The fire extinguisher is selected and installed according to article 2.1.5.1 of the National Fire Code and maintained, inspected, and tested in accordance with article 6.2.1.1.

The PCB storage site does not have a fire alarm system since it is an indoor storage site that stores all PCBs within appropriate shipping containers.

PCB REPORTING AND RECORD RETENTION

The federal PCB Regulations prohibit the release of quantities in excess of one gram of PCBs. KMN-10-ENV-REG-00003 PCB and Non-PCB Equipment Inventory – Mine provides updated PCB concentrations, PCB total weight and the amount required to spill 1 gram of PCB and trigger a reportable event.

A copy of all records regarding the PCB storage site inventory is available for use at the PCB Storage site. The inventory is maintained electronically and by hard copy within the Environmental Department. A copy of the inventory is provided to both MOE and the City of Timmins Fire Chief.

Please refer to KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure and Appendix IV for detailed procedures regarding PCB reporting procedures.

AUTHORIZATION OF ACCESS TO PCB STORAGE SITE

Only authorized persons who have the appropriate training regarding the hazards associated with PCBs, as per KMN-03-HR-PRO-00010 Training Needs Analysis Procedure, are allowed to enter and/or respond to incidents regarding PCB material (i.e., Fire Response Crew, Environmental Department, and Electrical Department). These individuals are also made aware of the protective equipment and clothing requirements and the clean-up procedures referred to in the Guidelines for the Management of Wastes Containing PCBs, CCME-TS/WM-TRE008 issued by the Canadian Council of Ministers of the Environment.

PCB EMERGENCY RESPONSE EQUIPMENT

Emergency response equipment is available inside and outside of the storage area. Additional material to respond to environmental emergencies is also available at the Surface Warehouse or any other location that chemicals are permanently stored.

Please refer to KMN-15-ENV-PLN-00001 Spill Prevention, Contingency and Response Plan for a more detailed description of the emergency response equipment available (list and location) to respond to an environmental incident.

FIRES ON SURFACE INVOLVING PCBs

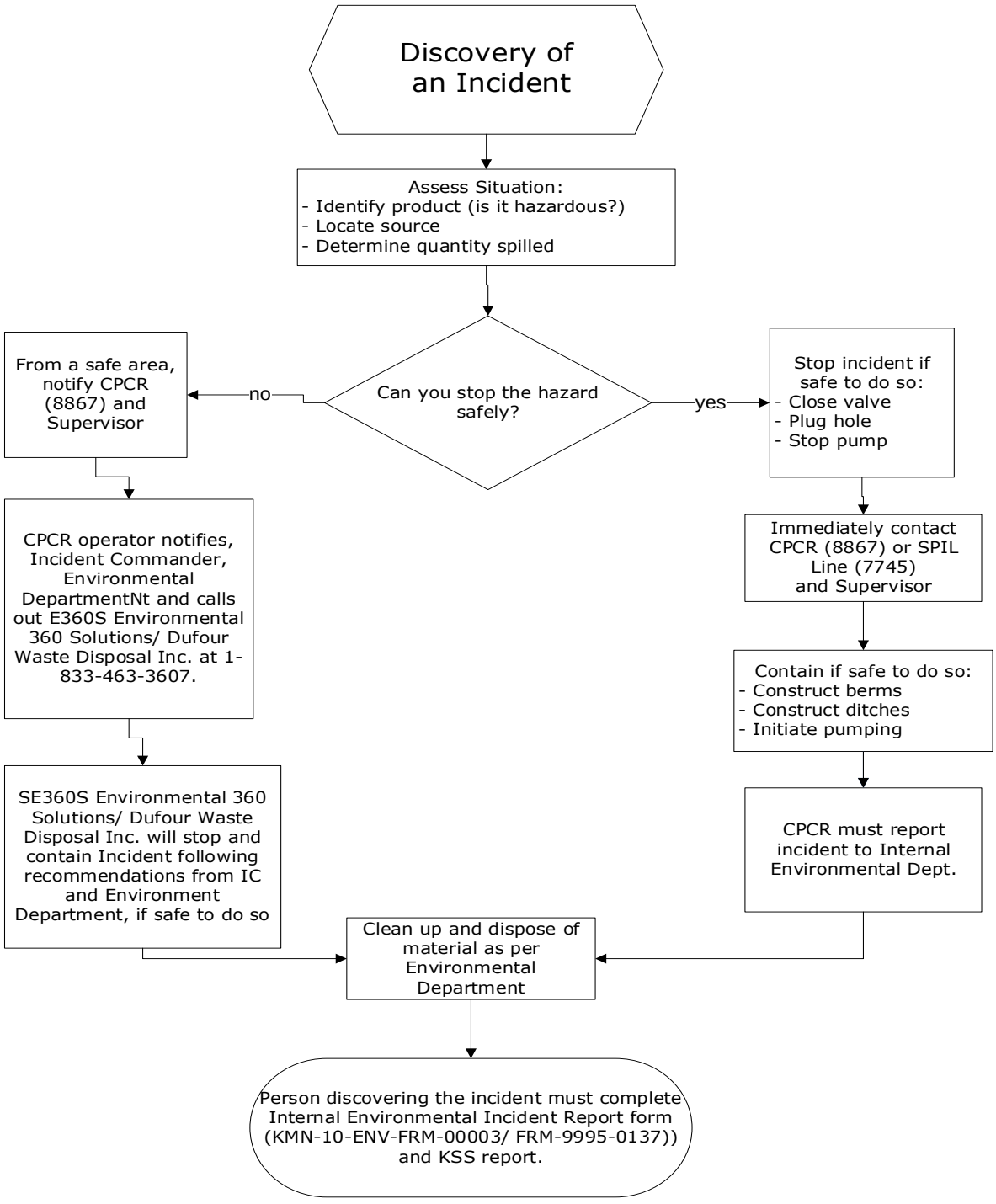
In most cases on site, PCBs are found in transformer oil. Should it ever ignite, it is recommended that the fire be extinguished using dry chemical, foam, carbon dioxide or water. Water may be ineffective. These fires can be extinguished the same way as an oil fire however PCBs are fire-resistant compounds that may decompose to form toxic products when exposed to flame or hot surfaces. Special precautions must be taken. It is imperative that all personnel remain upwind of any fire involving PCBs as the fumes can be toxic to human health. Fire fighters working to extinguish fires involving PCBs should wear self-contained breathing apparatus' and thoroughly decontaminate the equipment after use.

The Incident Commander must consider wind direction and PCB smoke in relation to underground ventilation.

If underground personnel begin calling enquiring about the smell of smoke, the decision to hoist will be made by the Management Team based on the conditions at the time.

C.15 Spill Response:

SPILL RESPONSE FLOW CHART



SPILL RESPONSE OVERVIEW

Spills can be separated into two basic categories:

External Spill: a discharge not authorized by an Environmental Compliance Approval, or equivalent environmental operating permit, into the natural environment, from or out of a structure, vehicle, or other container, and that is abnormal in quality and quantity in light of all the circumstances of the discharge. This is a spill to an area that lies outside of the area of drainage control of the mine site and hence enters the natural environment.

Internal Spill: a spill to an area that is inside the area of drainage control of the mine site. A spill underground that is not likely to reach a sump and be discharged to the treatment pond system would also be considered an internal spill. An internal spill will be contained by some containment structure, such as a building or sump for clean up, and hence will not enter the natural environment.

Both internal and external spills require response procedures, which include notification of key personnel and/or Ministry of Environment, control, clean up and documentation of the details of the incident. Although the details of a spill response will vary greatly depending on the location, quantity and substance involved in a spill, all responses should incorporate the same basic considerations outlined below.

GENERAL SPILL RESPONSE (RESPONSIBILITIES OF EMPLOYEES)

The first person at the scene of a spill must assess the situation and ask him/herself the following:

- Are there any injuries?
- What is the spilled material? Is it hazardous (i.e., toxic, corrosive, flammable, reactive)?
- What is the source of the spill?
- What is the cause of the spill?
- Can you stop the spill safely and without help?

SAFE TO STOP SPILL

If it is possible to stop the source of the spill safely, do so. Notify CPCR at 8867 to report the spill. Contain the spilled material immediately to prevent it from entering the environment and help with clean up. Be sure to wear appropriate PPE when cleaning up hazardous substances. For more information on handling of hazardous materials, please refer to the respective SDS available through the SDS 3E online portal on the Kidd Operations homepage.

UNABLE TO STOP SPILL

If it is not possible to safely stop the source of the spill, stay away from the spilled area. From a safe place, notify CPCR at 8867. Provide all information known about the spill, such as the type of spill, the amount spilled and the location and if there are any victims. If anyone is injured, please contact 8111.

Once CPCR has been notified, immediately contact your Shift Supervisor and alert him/her of the incident. Generally, the following clean-up guidelines should be used:

- Use proper Personal Protective Equipment.
- Stop the flow of the material by plugging the leak, turning off a valve, shutting down a pump, etc.
- If the material is noticed outside the containment area, plug or dike all drains to sewers or ditches to avoid release into the water system.
- Soak up liquid with absorbent material, e.g. (absorbent mats, Sorb-All etc.).
- An inventory of spill response equipment can be found on the Kidd Mine Intranet, Environmental section.
- Spill response equipment is stored at various locations at the Mine Site near the storage of any chemicals. Additional material may be found at the surface warehouse.
- Consult with Environmental Department regarding proper response and disposal of material. Liquid hazardous waste must not be disposed in the landfill site. Consult with the Environmental Department on proper disposal procedures.

Any spill occurring in the underground mine that is greater than 45 gallons must be reported to CPCR who will arrange clean up. CPCR will be responsible for reporting the spill to the Environmental Department.

For more information on Personal Protective Equipment, spill response and first aid measures for a particular material, Safety Data Sheets are available through the SDS 3E online portal on the Kidd Operations homepage.

For more detailed information on Spill Response at Kidd Mine, please refer to site spill procedures located on the Intranet or with the Environmental Department.
Depending on the emergency situation and if spills occurred:

Refer to Legislated Spill Reporting Requirements for a chemical spill / discharge. Refer to KMN-15-ENV-FRM-00001 Internal Environmental Incident Report Form for the internal spill reporting format.

C.16 Ammonia Release:

AMMONIA RELEASE RESPONSE FLOW CHART

AMMONIA RELEASE RESPONSE OVERVIEW

*Note: OE = Operating Engineer, ARTech = Ammonia Response Technicians
Each incident or emergency involving a release or suspected release of ammonia requires situational assessment. The outcome, in all cases, is to mitigate the situation within the scope of the responder's ability. Site safety is paramount and protecting the health and safety of all personnel (including responders) shall remain the main objective. It is important for responders and incident command personnel to recognize that ammonia is toxic. In low concentrations, ammonia within air is merely irritating but as the concentration of ammonia in air increases, so does the ability to cause harm to life. Ammonia Response Technicians (ARTechs) shall always assess the risk of each situation before making analytical decisions.

The table below provides some important information regarding ammonia concentrations.

Ammonia Concentration Level	Description	PPE
25 ppm	TWAEV (Time Weighted Average Exposure Value)	APR (Air Purifying Respirator)
35 ppm	STEL (Short Term Exposure Limit)	APR (Air Purifying Respirator)
300 ppm	IDLH (Immediately Dangerous to Life & Health)	SCBA
15 % ammonia in air	LEL (Lower Explosive Limit)	LEVEL A Suit
28 % ammonia in air	UEL (Upper Explosive Limit)	LEVEL A Suit

Ammonia Response Personal Protective Equipment (PPE)

Any time a technician works in an environment where they are exposed to airborne concentrations of ammonia, they shall protect themselves with the appropriate protective equipment. This includes respirator protection and/or chemical protective clothing.

- Concentrations above 25 ppm but less than 300 ppm require an Air Purifying Respirator (APR) of the full face-piece type.
- Concentrations above 300 ppm but less than 1000 ppm require a Self-Contained Breathing Apparatus (SCBA).
- Concentrations above 1000 ppm require a SCBA and Total Encapsulated Chemical Protective (TECP) Suit.

In addition, whenever personnel require the use of SCBA protection, they shall be accompanied by a second person trained in ammonia response.

Ammonia SPILL Response PROCESS FLOW

The term "spill" is often used to define a release of ammonia or other substances.

Spill: A discharge of a pollutant into the natural environment from or out of a structure, vehicle or other container that is abnormal in quality or quantity in light of all the circumstances of the discharge. If a spill causes, or is likely to cause, any of the following adverse effects, it must be reported and cleaned up:

(a) Impairment of the quality of the natural environment for any use that can be made of it
(b) Injury or damage to property, plant, or animal life.
(c) Harm or material discomfort to any person
(d) Adverse effects on the health of any person
(e) Impairment of the safety of any person
(f) The rendering of any property, plant, or animal life unfit for use by humans
(g) The loss of enjoyment of normal use of property
(h) Interference with the normal conduct of business

Ammonia SPILL Response ACTION

Notification of an ammonia release or suspected ammonia release or ammonia emergency may come from one of three sources,

1. Site personnel may smell ammonia gas and call 8111
2. Human Machine Interface may indicate a high ammonia ppm and trigger an alarm.
3. Operating Engineer, Refrigeration Mechanic, or maintenance technician in proximity to the plant may call 8111.

Upon notification item No. 1 or No. 2 above, the CPCR attendant shall determine if the ammonia sensors are registering any ammonia levels and record the value on their checklist.

- If either the machine room or downstream air sensors register high concentrations of ammonia while the surface refrigeration plant is in operation, CPCR attendant shall attempt to contact the Operating Engineer, Ammonia Response Tech.
- If the surface refrigeration system has been shut down for the winter season, CPCR attendant shall dispatch two Ammonia Response Tech responders to investigate.
- If CPCR attendant is notified by No. 3 above that an accidental ammonia release has occurred or the ammonia concentration is above 300 ppm, there is the potential for injuries or other serious consequences.

CPCR shall dispatch four available Ammonia Response Tech personnel and initiate emergency response action according to the Kidd Operations -Minesite ERP.
CPCR shall maintain radio contact with the Ammonia Response Tech to keep abreast of the progress, of the response outcome, and to ensure the safety of site personnel and responders.

Ammonia SPILL ISOLATION AND PROTECTION ZONES

If an accidental release occurs, the Ammonia Response Tech should set up a perimeter around the machine room and notify CPCR of their action. The Ammonia Response Tech shall analyse the situation and determine if the release is a large leak or a small leak and follow isolation procedures below. In addition, they must monitor the downwind direction of the isolation zone to determine if evacuation of surrounding buildings and/or site is necessary.

The guideline below, from the North American Emergency Response Guidebook, shall be used.

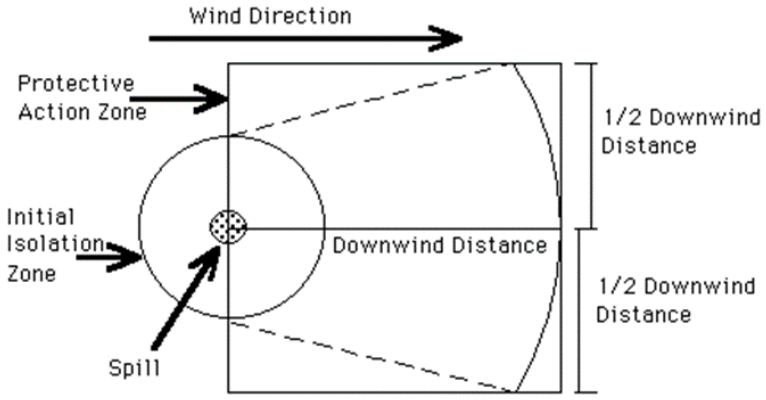


Table: Anhydrous Ammonia Guidelines

Anhydrous Ammonia	Small Spills						Large Spills					
	Isolate - All Directions		Protect persons – Downwind up to:				Isolate - All Directions		Protect persons – Downwind up to:			
			Day		Night				Day		Night	
UN I.D. # 1005	metres	feet	km	feet	km	feet	metres	feet	km	feet	km	miles
	30	**100**	**0.1**	**328**	**0.2**	**656**	**150**	**492**	**0.8**	**2624**	**2.3**	**1.43**

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All non-emergency response personnel should be kept well out of danger. The “hot zone” or area inside the perimeter must not be entered by anyone other than those responding to the emergency. The area outside this zone should be monitored regularly throughout the emergency to determine if additional action is required. IC should contact external response personnel as per the Kidd Operations -Minesite ERP and at the request of the response personnel.

RECONNAISSANCE DURING AN EMERGENCY

In the event of an emergency, the Ammonia Response Tech shall use appropriate PPE and, with a buddy, enter the area of the spill to determine the appropriate response action to the circumstances.
(While investigating, a pair of Ammonia Response Techs should be standing by in case assistance is needed.)
If stopping the release is viable without causing harm, the Ammonia Response Tech should do so. The Ammonia Response Tech should take note of their action and notify the refrigeration contractor (CIMCO) for advice and support immediately.
Self-rescue and staying out of plant are an option. If levels are above the TWAEV, do not enter the plant. Apply all controls from the office area control or CPCR.
Enter the plant only if it is safe to do so.

ISOLATION AND CONTAINMENT

The Ammonia Response Tech should isolate and contain ammonia within the refrigeration system upon the advice of a licensed Refrigeration and Air Conditioning Mechanic. They should close valves, tighten packing nuts, flanges or whatever else may be deemed necessary to mitigate a release as long as doing so does not create any further hazard. System Piping and Instrumentation drawings are available to assist the technician to understand the flow and the

components. If isolation and containment is not possible, a non-intervention response should be deemed appropriate until assistance can be rendered ensuring that the safety of site personnel is maintained.
The Incident Commander must consider wind direction and ammonia cloud in relation to the underground environment.

If underground personnel begin calling enquiring about the smell of ammonia, the decision to hoist will be made by the Incident Commander based on the conditions at the time.

REPORTING

Ministry of Labour, Technical Standards and Safety Authority, Ministry of Environment and Climate Change, and other regulatory bodies should be contacted as provided for in the Kidd Minesite ERP. The Incident Commander or delegate would typically make such calls. (e.g.: Spill – Environmental Co-ordinator, Vent/Fixed Plant Maintenance)

DEBRIEFING

Debriefing shall take place as per the Kidd Mine Site ERP and shall include the refrigeration contractor responsible for operation and maintenance (CIMCO). All reports, minutes, and action taken shall also be recorded and shall be forwarded to all parties involved. The objective of the debriefing should be to improve emergency preparedness and response by identifying areas of success and areas requiring improvement. Any recommended changes to this procedure can be made at that time.

*For more information on the CIMCO Ammonia Emergency Response Procedure visit the Kidd Operations Homepage – Sustainable Development and Environmental, Health & Safety – Emergency Response Plan (Mine & Conc sites) – 1. Mine Site – 5. ERP Reference Documents – 2. CIMCO TOROMONT.

C.17 Hypochlorite Spills:

The Kidd Mine Feldman Lake pump house is located approximately 22 Km north of the city of Timmins. The pump house supplies service water to the Kidd Mine for domestic and industrial purpose. The water is pumped through 5 km pipeline and is stored at the mine site within a water tower. From there it is distributed to various infrastructure for use.

The pumphouse is in a rural setting on the west side of Feldman Lake and accessed by Highway 655. Between the highway and the pumphouse is the rail line used by Kidd Operations to carry ore from the mine to the concentrator, as well as an Ontario Power Generation hydro corridor and snow mobile trail. Members of the public typically access the surrounding property year-round.

The lake water is chlorinated within the pump house using a solution of 14% sodium hypochlorite. A 6,000-liter storage tank is located on the south side of the building, within the chain-link fence that surrounds the pump building. The tank is fitted with two low level alarms that warn of insufficient volumes. It is the responsibility of the fixed plant maintenance group to monitor the chlorination process and order more hypochlorite when required.

Site Access

The building has a chain link fence surrounding it with gates that are locked when personnel are not at the building. Fixed Plant Maintenance, Material Handling, Environmental and Security groups have keys to access the compound. The area is monitored with a security camera and the fence heavily equipped with signage informing the public of the hazards.

The door to the building has an electronic locking device where a code or a programmed key FOB is required to gain entry. A key to access the chlorine shed is located on the south wall beside a sensor display inside pump house. For additional information please refer to the Safe Entry into Feldman Lake Chlorination Room Procedure (KMN-08-SG-PRO-01502).

Sodium Hypochlorite

Sodium hypochlorite has replaced the use of gaseous chlorine for disinfection purposes at the pump house. Sodium hypochlorite (NaOCl) is an alkaline liquid that will disassociate to produce hypochlorite ion and sodium hydroxide. The vapour pressure of sodium hypochlorite solution is less than that of water at the same temperature.

Heating sodium hypochlorite will generate sodium chloride and oxygen, and mixing with acids will produce chlorine gas. Chlorine gas is extremely irritating to the eyes, skin and respiratory system. It has a distinct smell and an odour threshold that is well below the Short-Term Exposure Limit of 1 part per million.

No acids are stored at the pump house and no other products, other than sodium hypochlorite, are delivered to the pump house so it is unlikely that chlorine gas would be encountered.

Hypochlorite spill response

A spill of sodium hypochlorite will be detected by site personnel attending the pump house or by low-level alarm annunciation in CPCR. Spill response shall be conducted as outlined in C. 15 Spill Response.

Personal Protective Equipment

Personal protective equipment for a hypochlorite spill includes:

- Face shield,
- Impervious gloves, boots, and suit,
- Half-mask respirator fitted with HEPA/OV/Acid Gas cartridges.

Fire Fighting Information

If the City of Timmins Fire Department is called to fight a fire at the Feldman Lake pump house, they must be notified of the existence of sodium hypochlorite at this location.

First Aid

Inhalation: Move victim to fresh air. Give artificial respiration ONLY if breathing has stopped. Give cardiopulmonary resuscitation (CPR) if there is no breathing AND no pulse. Oxygen administration may be beneficial in this situation but should only be administered by personnel trained in its use. Obtain medical attention IMMEDIATELY.

Skin Contact: Flush skin with running water for a minimum of 20 minutes. Start flushing while removing contaminated clothing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.

Eye Contact: Immediately flush eyes with running water for a minimum of 30 minutes. Hold eyelids open during flushing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY.

Ingestion: Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give 1/2 to 1 glass of water to dilute material. IMMEDIATELY contact local Poison Control Centre. Do not induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. IMMEDIATELY transport victim to an emergency facility.

Environmental Protect and Spill Clean-up

- Do not touch or walk through the spilled material if possible. However, if you must, personnel should wear the appropriate PPE during environmental decontamination. See the PPE section.
- Do not allow contact with organic materials (i.e. rags, cotton fibres, wood fibres, paper debris, etc.) or reducing chemicals except under controlled conditions. Do not discard materials indiscriminately. A spontaneous combustion (fire) could result.
- Do not mix with acids, ammonia or reducing agents. Doing so could cause a release of chlorine gas or cause a violent reaction.
- Stop the leak if it is possible to do so without risk to personnel,
- Contain and absorb the spill with absorbent material, avoid sawdust and other combustible or incompatible materials. Ventilate area.
- Flush area with water, wet area may be slippery.
- Prevent entry into waterways, sewers, basements, or confined areas.
- Collect soil or water samples if product has come into contact and remediate accordingly.

Reporting

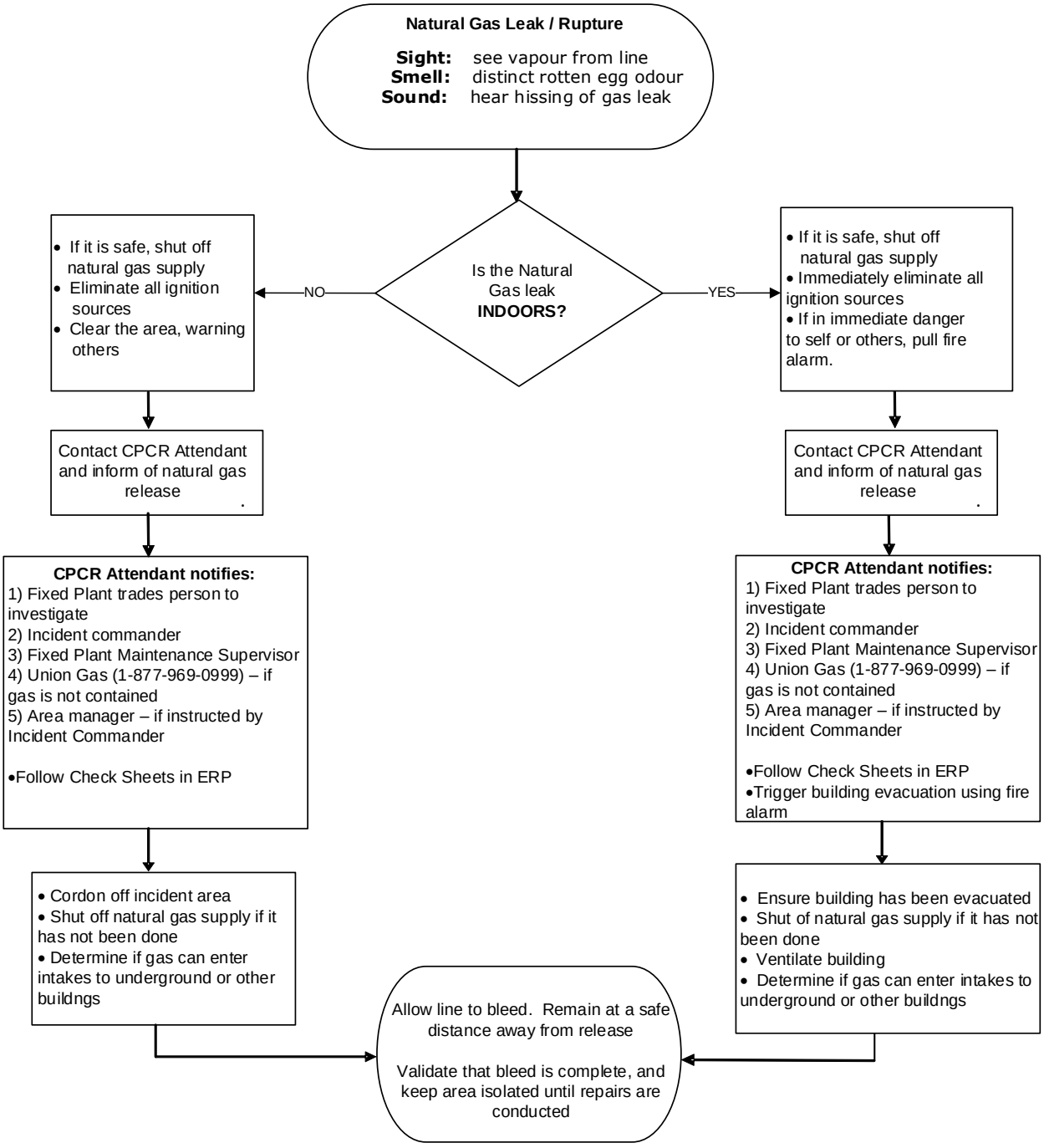
MOL, TSSA, MOECC, and other regulatory bodies should be contacted as provided for in the Kidd Minesite ERP. The Incident Commander or delegate would typically make such calls. (e.g.: Spill – Environmental Coordinator, Vent/Fixed Plant Maintenance)

Further Information

Pamphlet 96 Sodium Hypochlorite Manual Edition 5. Arlington, The Chlorine Institute, September 2017

C.18 Natural Gas Release:

NATURAL GAS RELEASE RESPONSE FLOW CHART



Discovery of Gas Line Leak / Rupture (Responsibilities of Employees)

A ruptured or leaking natural gas line can be detected in three ways:

- Sight – if natural gas is leaking from a pipeline, you may be able to see vapour in the air.
- Smell – in its natural state natural gas is odourless. As a safety feature, Mercaptan is added to natural gas to give it a distinct sulphur / rotten egg smell so you can easily detect it.
- Sound – you may be able to hear the hissing sound of gas leaking from a pipeline.

Indoor Leak / Rupture

- If it is safe to do so shut off natural gas line.
- Pull the fire alarm and evacuate the building, warning everyone you see.
- Contact the CPCR Attendant and advise there is a natural gas line leak / rupture.
- Go to your Assembly Point.
- If leak goes beyond the building, Incident Commander must consider wind direction, smoke, and natural gas cloud in relation to underground ventilation.

Outdoor Leak / Rupture

- If safe to do so, shut off natural gas line.
- Rope off the area to isolate.
- Clear the area, warning everyone you see.
- Eliminate sources of ignition (shut off vehicle engines, machinery).
- Contact CPCR Attendant.
- Remain at a safe distance away from the leak / rupture.
- If leak goes beyond the building, Incident Commander must consider wind direction, smoke, and natural gas cloud in relation to underground ventilation.

Responsibilities of Incident Commander

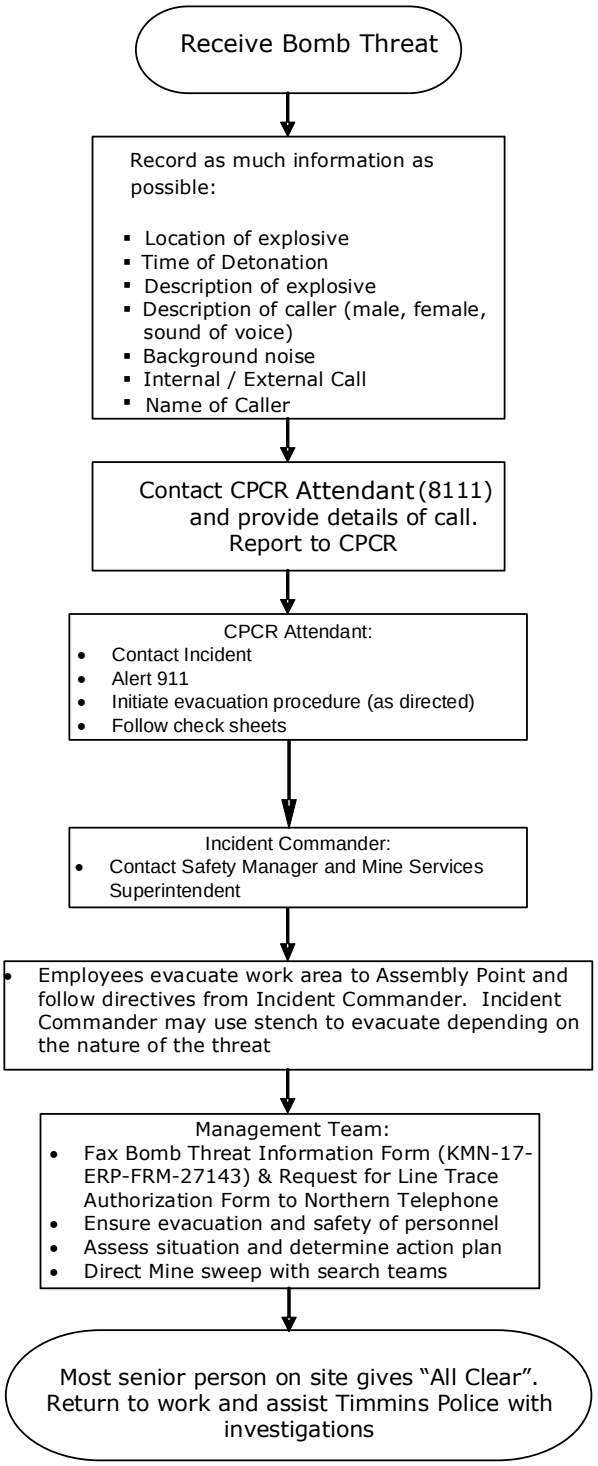
- Incident Commander must consider wind direction, smoke, and natural gas cloud in relation to underground ventilation.
- The ERP to be considered to enable safe management of u/g personnel.

Natural Gas Service Interruption

The main effect of an interruption in natural gas service at Kidd Mine is on shaft services during the winter months. The shaft is heated by natural gas. Therefore, if a service interruption occurs during the winter months, there is a danger that the shaft workings will freeze.
For more information, refer to KMN-08-VT-GDL-01611 –#2 Shaft Freeze-Up Contingency Plan.

C.19 Bomb Threat:

BOMB THREAT RESPONSE FLOW CHART



BOMB THREAT GENERAL

Bomb threats are normally transmitted by phone. The telephones in the Occupational Health Centre, Security Office and Central Process Control Room are equipped with tape recorders that record all incoming calls and trace buttons, which will trace the call. Bomb threat calls, however, can be received at any phone extension on the property.

"TREAT EVERY BOMB THREAT AS LEGITIMATE!"

BOMB THREAT GUIDE

The person receiving the call should remain calm and try to obtain as much information as possible, such as:

- The time the call was received and on which telephone number or extension. If the phone is digital (i.e., call display), note if the call is external or internal. If internal, record the extension number.
- Record the exact words of the person making the threat.
- Indicate whether it was a male or female voice and an approximate age.
- Note any accent or speech impediment or slurring of speech, which could indicate intoxication or an unbalanced condition.
- Listen for the presence of any background noises, such as traffic, music, or other voices.
- Decide if the voice is familiar.

If possible, ask the caller certain questions if the information has not already been volunteered:

- Where is the bomb?
- What kind of bomb is it?
- When is it going to detonate?
- Why did you place the bomb?
- What does it look like?
- What is your name?

The caller may or may not provide specific information. Refer to KMN-17-ERP-FRM-27143 - Bomb Threat Information Form for more information. When the call has ended, contact the CPCR Attendant immediately at 8111. Give as much information about the call as possible. Report to CPCR.

Do not discuss the incident with others unless instructed by the Management Team and/or the Timmins Police. When / if instructed to evacuate a building or the underground, do not touch or move suspicious looking articles. Report any suspicious looking articles and the location to the CPCR Attendant. Calmly exit the building to your Assembly Point and await a head count and further instruction. Search teams will generally be comprised of untrained volunteers. All search personnel should be paired and instructed to perform the following sweep procedure:

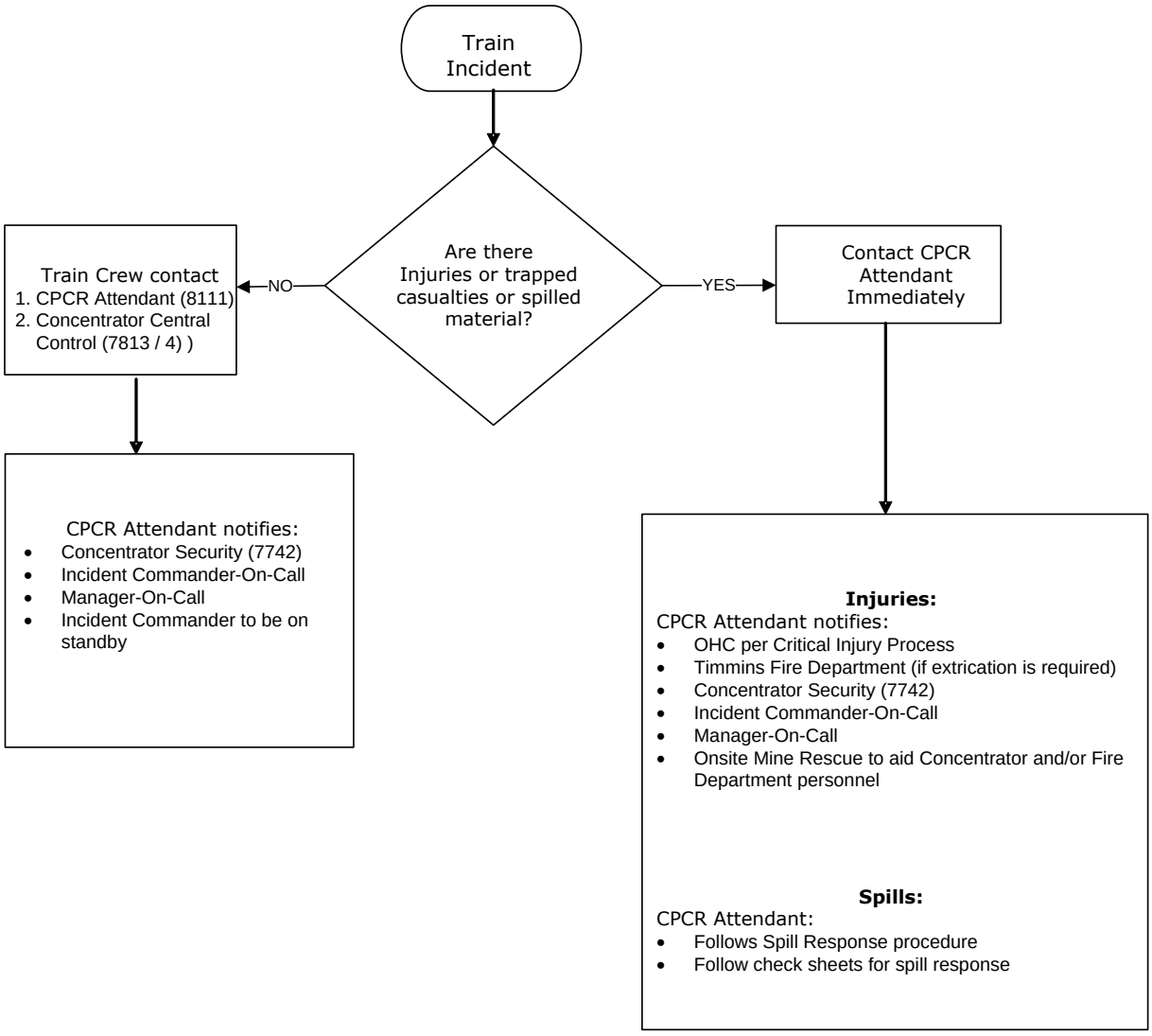
- Searches should be performed on surface buildings and on-site infrastructure (Feldman Lake Pumphouse, lime plant, CO2 plant, etc.) and the Number 2 Headframe first, followed by an inspection of the shaft, the upper levels of the

underground area, Number 4 Shaft, then levels 4700 and below. All shafts, manways and conveyances must be searched, as well as underground shops, development areas, drainage infrastructure, etc.

- The shaft will not be used to move search employees until the skip compartment inspection is complete. Travel should be limited to the ramp until the inspection is complete.
- As each area is searched, call the CPCR Attendant and advise if the area is clear. If you find a bomb, suspicious article (such as packages with wires hanging out, leaking boxes, brown paper bags, packages with no return address, etc.) or caps and explosives stored together in an unusual area, do not approach, touch, or move anything! Cordon off the area and call the CPCR Attendant with the information. Standby for instruction from the CPCR Attendant.

C.20 Train Incidents:

TRAIN INCIDENT RESPONSE FLOW CHART



TRAIN INCIDENT GENERAL

Rail cars transport ore on a daily basis from Kidd Mine Site to the Concentrator for processing. For the purpose of this Emergency Response Plan, a train incident can be defined as a derailment or a collision with other equipment, vehicles, or structures, any of which may or may not result in an injury and/or spill of material.

TRAIN INCIDENT GUIDE

Each train is operated by at least two Train Crew members who are trained in re-railing activities and other train incident responses. In the event of a train incident, the on-board Train Crew members will advise Train Crew Supervision and coordinate re-railing activities. While the Concentrator has trained personnel available to respond to train incidents, the Mine Site may be required as first response in cases where threat to life or process may be involved. Information on train incident procedures can be found on the Concentrator Division Intranet site.

On-site minor incident when MOL reporting is not required, an internal investigation and report shall be completed. Refer to KSS Incident Investigation Report.

On-site incident in which a car(s) overturns: notice shall be given to the MOL, and an internal investigation and report shall be completed. Please refer to Ministry of Labour Reporting Requirements. Refer to KSS Incident Investigation Report.

- Train collisions with another train, a vehicle, a building, or a person: MOL reporting required. Please refer to Ministry of Labour Reporting Requirements. Refer to KSS Incident Investigation Report.
- If the train incident involves a spill of material, Ministry of Environment reporting may be required. Please ensure Environmental Department is notified and refer to the following documents:
    - Environmental Incident Response and Reporting Procedure KOP-ENV-SOP-00005
    - Spill Prevention Contingency and Environmental Emergency Response Plan KOP-ENV-PLN-00004
    - Internal Environmental Incident Report Form KMN-15-ENV-FRM-00001
    - External Environmental Incident Report Form KMN-15-ENV-FRM-00002

In the case of any train incident, notify the CPCR Attendant immediately. CPCR will notify Concentrator Central Control (7813/7814) immediately.

C.21 Emergency Site Evacuation:

In the event of an escalation of any Emergency, the Management Team may make the decision to evacuate the site. The designated alternate Central Control location is the Kidd Concentrator site.

For an efficient evacuation process, the management team must establish an appropriate location for those persons arriving on surface. This will be highly dependent on the nature of the emergency. The following questions will assist the management control group on making decisions.

- Type of Emergency?
- Is stench injection required or radio communications?
- Are guards required? How many? Do the guards require specific PPE?
- Is transportation required for personnel arriving to surface?
- Is highway 655 to Timmins open? Is highway 655 to Driftwood open?
- What area has been selected for evacuees?
- Are there resources available on the property to lessen the impact? (water pump, dozer)
- Implement sprinkler procedure?

The list of activities to review can include, but is not limited to:

- Backfilling operations
- Paste fill lines flushed.
- Shot Crete activities, have all hoppers been cleaned.
- Cancel shifts – advise media (local and CBC)
- Start diesels at Feldman as needed.
- Check bottled Gas.
- Move vehicles to an area with no impact.
- Cancel all powder deliveries.
- Contact Orica representative for relocation of explosives.
- Make U/G chutes safe.
- Hoist people.
- Clear boards & ensure everyone gone.
- Shut down U/G H_2O
- Follow Power Outage shut down sheets.
- Turn off lights.
- Lock gates.
- Communications

C.22 Emergency Assembly Points

The normal means of headcount communication will be followed. Information on missing personnel will be reported to Incident Commander. The Incident Commander will in turn notify the Emergency Operating Center of missing personnel.

If radio equipment is unavailable at the assembly point, a runner will be sent to EOC. The runner will report the status of the headcount and relay instructions back to the assembly point evacuees.

If the Administration building is evacuated, the information from the assembly points will need to be relayed to the EOC at the alternate designated location.

C.23 Information Systems Recovery

In the event the Mine Site experiences a significant loss of computers and electronic monitoring systems, CPCR will contact the Superintendent, Information Technology and the Information System Disaster Recovery Plan will be activated.

Recovery procedures for this type of emergency are classified and are not available for anyone other than the IT Department.

C.24 Road Closure

Road closures resulting from weather related or other emergencies are possible. During past closures, it has been noted that a “Local Traffic Only” sign is not always present. When there is no clear direction provided regarding whether traffic is allowed in and out of Kidd Operations (i.e. there is no signage indicating local access permitted), CPCR attendants will contact the Ontario Provincial Police (OPP) Communications Centre at 1-888-310-1122 to confirm whether Kidd Operations employees are allowed to pass the closure barricade. The date and time of the call and the name of the officer spoken to shall be included in an email to the management team and site security.

D. Recovery Operations

Post-incident recovery activities should be initiated as soon as possible, preferably WHILE RESPONSE OPERATIONS ARE STILL UNDERWAY.

Actions taken during response operations should be decided, whenever possible, with post-incident recovery in mind.

Recovery operations include:

- Have all casualties been evacuated to appropriate medical facilities?
- Has the source of the crisis been contained and has the likelihood of further damage to people, assets, the environment, and Kidd Mine Site been isolated or removed?
- Have all media requests been addressed or met?
- Have the ECT Commander and Team been consulted and advised of the intent to formally announce the crisis is over, and do they agree with the decision?
- Has the Crises Management Team been notified crises is over?
- Repair of damaged structures, restore damaged process units to production.
- Restoration of services such as water, power, heat, and communications.
- Clearing of access routes.
- Restore damaged process units to production.
- Remediation as required.

Remediation of the incident site should begin as soon as possible under the direction of the Incident Commander. Should fatalities result, it will be necessary to wait until the Office of the Coroner and Law Enforcement release the site.

D.1 Public Relations

When an incident results in off-site impacts, it will be necessary to carry out public relations activities. The Emergency Control Team Commander, in conjunction with the Communications and Communicaty Relations Coordinator will be responsible for ensuring all public relations activities are carried out. The priority is to demonstrate to the public that Kidd Mine is concerned for the safety of its neighbours.

Public relations activities may include:

- Clean up of debris.
- Meetings to inform the public about the incident's causes and what the company is doing to prevent a recurrence.
- Holding Statements, Press Releases, Press Conferences
- Counselling services to plant personnel and public affected by the incident.

Reference PL-200 – Crisis Management Plan for details on Communications Guidelines, should it be required.

D.2 Employee Assistance

Employees affected by the incident may experience delayed / long term reactions. These effects may include:

- Loss of employment due to destruction of workplace. Losses may be real or perceived.
- Critical Incident Stress.

The service provider can be used to hold sessions informing employees about the long-term implications of the incident. It is necessary to establish the company's position on the issue of job loss and retention of employees as early in the recovery phase of the operation as possible.

Critical Incident Stress Debriefings will be initiated for affected employees and their families as required or recommended by the Manager of Human Resources.

D.3 Litigation

The contracted Legal firm is responsible for all litigation and insurance issues. Any queries, request for compensation and/or insurance claims by third parties should be directed to the legal firm. Insurance claims made by company employees will be made through the normal company insurance procedures.

The firm will be contacted by the management team as early as possible following an incident where a Glencore Kidd Mine product or action has threatened or harmed a third party.

The contact names and numbers for the Internal Legal contacts are included in the PL-200 – Crisis Management Plan for details on Communications Guidelines.

D.4 Resumption of Business

An emergency may adversely affect meeting delivery agreements with customers. This effect may be felt for an extended period of time depending on the severity of the incident. Impairment

may be a result of injury to personnel, damage to the physical plant, and loss of records or government regulatory action.

Reference applicable Business Continuity Plans.

E. Post Incident Investigations & Debrief

In every emergency involving a fatality, a serious injury, and loss or significant damage to Kidd Mine property will be investigated based on the current Incident Investigation Program. As soon as possible after an incident, personnel designated by senior management will mobilize and depart for the incident site to conduct an investigation into the incident.

PARTICULAR CARE MUST BE EXERCISED TO ENSURE THAT ALL EVIDENCE IS PRESERVED IN ITS ORIGINAL STATE. Where loss or damage to Kidd Mine property or loss of revenue has occurred, evidence will not be disturbed until permission has been received from the Insurance Company adjuster or any government agencies involved.

E.1 Serious Injuries / Fatalities Investigations

Following an incident where a fatality or a serious injury has occurred, government agency representatives will likely decide to carry out an investigation into either the extent or cause of the injury/fatality. After presenting their credentials, the representatives are to be afforded full co-operation in the performance of their duties.

Work at the scene of the injury/fatality may not be resumed until permission has been obtained from the Coroner's Office, the Local Law Enforcement, and any provincial government agency. Resumption of work may be permitted on a restricted basis to facilitate rescue operations or when failure to resume operations may endanger the lives of others.

E.2 Insurance & Government Investigations

Insurance companies and Government agencies may wish to conduct investigations of their own into an incident. Once they have shown their credentials, either the designated contact for the location or his alternate must accompany them.

Following any response to an emergency event, the Management Team will ensure the response is reviewed and recommendations implemented.

F. Emergency Support Structure

The Kidd Mine Emergency Support Structure is the first line resource support for emergency operations on site. It may or may not be called upon to respond to off-site incidents. This does not preclude providing technical expertise to off-site response operations as circumstances on the mine site allow.

The specific hazards and associated risks will determine the strategy. The strategy must define what has to be done and how to do it. Following emergency procedures will help protect people, equipment and limit the size of the incident. Safety of personnel is always the first priority.

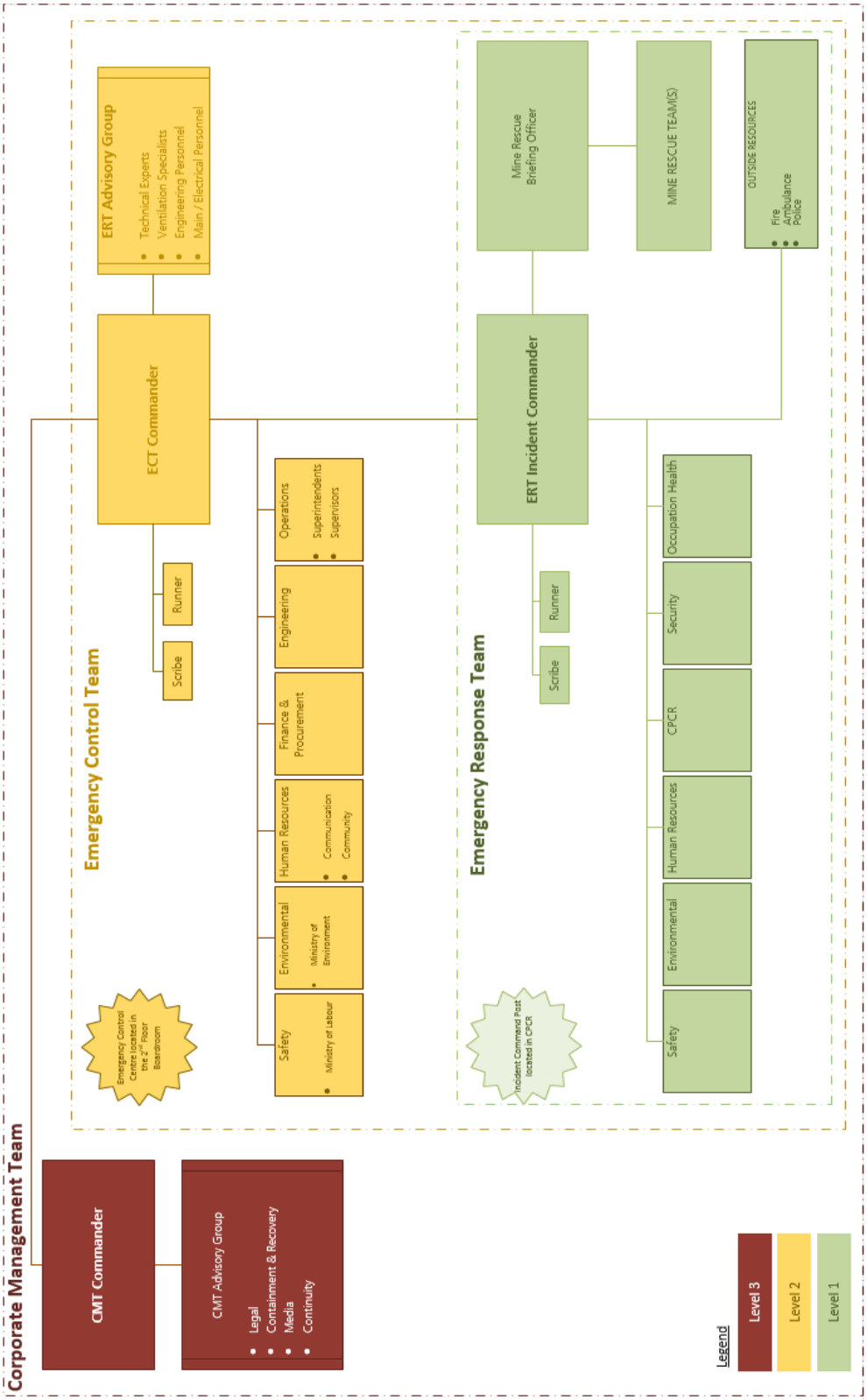
Kidd Mine (KMN) employs a standardized emergency response organizational structure based on the Principles of Incident Command (ICS Canada).

The KMN Emergency Response Organization consists of three primary organizational levels each with its own distinct roles and responsibilities. Other entities work with this three-tiered organization as appropriate.

F.1 Functional Activities

- Withdraw personnel in danger to a safe place,
- Direct personnel to activate the emergency contact call-out as required,
- Start measures to control the situation and minimize the danger,
- Confirm the location of personnel to establish if any personnel are missing,
- If necessary, direct personnel to a less hazardous location by a safe escape route,
- Request emergency services, as necessary.
- Inform the appropriate Superintendent or Manager with functional responsibility at the time of the incident,
- Where possible, barricade and/or restrict access to dangerous areas. Arrange for “guards" to be placed at the access to places which are, or may become dangerous as a result of the incident and explain their duties,
- Use a reliable person to maintain communications with dispatch by radio, or phone between the incident command center, and the incident scene or emergency responders as appropriate.
- During all communications, identify yourself by your official title, or the position assigned within the Emergency Response Plan (for a Major Emergency).
- Maintain communications and update Management or other stakeholders, as necessary.

F.2 Incident Command Structure



F.3 Incident Command Post (CPCR)

GENERAL - The Incident Command Post (ICP) is established to manage the response to an incident.

LOCATION - The ICP is located in the office adjacent to the Central Process Control Room (CPCR) on the ground floor in the Mine Site Administration Building. The ICP will house a hard copy of the Emergency Response Plan and all corresponding check sheets. If the primary ICP is at risk during the emergency, it is the responsibility of the CPCR Attendant to take the emergency response binder and all corresponding forms with them to the alternate ICP.

STAFFING - To maintain an effective system of communication and coordination, individuals are pre-appointed to a standing organization that can immediately respond during an emergency. Kidd Mine maintains a list of qualified incident commanders that rotate on a weekly on call basis. During emergency events, the IC on call is to be contacted and if unavailable then the IC on Standby must be contacted next.

CONDUCT - Incident Command Post (ICP) will facilitate all Emergency Response Team involved in all levels 1 or 2 emergencies and their activities will include but not be limited to:

- Securing the emergency site
- Controlling site access
- Coordination of immediate area/underground mine evacuation
- Staging and deploying emergency services
- Identifying and requesting additional services and/or resources
- Providing situation reports to Emergency Control Team Commander (if activated)

In the event that safe access to the Administration building is compromised due to the nature of the event, alternate locations for the ICP include are available including the Paste Fill Plant Services Building, the Compressor Room, or the Timmins Fire Department mobile command vehicle. For more significant events involving the rail line, or a major forest fire, alternate facilities could be established at the Kidd Operations Concentrator.

EQUIPMENT - Detailed information about ER equipment (Mine Rescue, Medical, Fire/Rescue) can be found in Appendix R – Resources.

COMMUNICATION - Verbal communication from the ICP to the EOC will be as follows:

- Primary: In person
- Alternate (1): Telephone (fixed land line)
- Alternate (2): Two-Way Radio
- Alternate (3): Cell Phone

F.4 Emergency Operations Centre (EOC)

GENERAL - The Emergency Operations Centre supports the Incident Command Post (IC Office in CPCR) and communicates with the Crisis Management Team (CMT) to request resources and/or receive guidance in support of the Emergency Response Team. The Emergency Control Team Commander directs all support activities from this post.

LOCATION - The EOC must be located a suitable distance from the briefing (and media rooms). The primary location for the EOC at Kidd Mine is at the conference table within the CPCR. If more resources are required, the EOC will be relocated to the main conference room on the second floor of the Mine Administration building.

The alternate location for the EOC is the Paste Fill Plant Services building if the Administration building is compromised. A second alternate EOC location is possible at the Kidd Concentrator. The Kidd Mine has access to the municipal mobile Command Centre if the nature of the incident requires the command facilities to remain in close proximity to the site.

Copies of all ERP documents must be stored at all alternate locations.

FUNCTION - The Emergency Operations Centre will normally consist of a gathering of Senior Management personnel representing Kidd Mine departments. Their primary function is to advise the Incident Commander and offer council in their particular area of expertise.

The advisers to the Emergency Control Team Commander will assemble at a designated pre-determined location (CPCR Meeting table/Administration Board Room), or mobile command base as determined by the nature of the emergency.

General duties include.

- Advising the Incident Commander of any necessary actions that are not covered in the emergency plan, and approving actions recommended by the Incident Commander, as necessary.
- Providing administrative and logistic support to all functions involved.
- Taking the necessary actions to minimize the effects of an emergency or disaster.
- Be prepared to authorize the expenditures for resources that are required for the preservation of life, health, property & environment.

STAFFING - The Emergency Operations Centre consists of the following Command personnel:

- Emergency Control Team Commander – General Manager, Manager of Mining, or Superintendent of functional area, as required.
- Command Staff – Operations /Engineering
- Command Staff – HR / Communications
- Command Staff – Health and Safety Officer
- Command Staff – Environmental

The following personnel or their designated alternates will typically make up support for the Command & Command Staff

- Operations Section Chief – Superintendent of Functional Area, as required.
- Planning Section Chief – Manager of Engineering or delegate
- Logistics Section Chief – Warehouse or Procurement
- Finance/Admin Section Chief – Finance Manager
- Section support members as required by functional activities.

Depending upon the level of emergency external agencies may also assist the ICP and EOC.

EQUIPMENT - The room must have the following available as a minimum:

- Telephone hook-ups.
- Computer network hook-ups
- Flipcharts
- Maps, site layout, ventilation drawings, longitudinal sections, hazard material storage locations
- Emergency Response Plan

COMMUNICATION - Verbal communication from the EOC to the Incident Command Post (ICP) is as follows:

- In person
- Alternate (1): Telephone (fixed land line)
- Alternate (2): Two-Way Radio
- Alternate (3): Cell Phone

Verbal communication from the EOC to the CMT will be as follows:

- Primary: Telephone (land line)
- Alternate: Cell Phone
- Alternate: Email

The General Manager or delegate is the point of contact for the Emergency Operation Centre when communicating to the Crisis Management Team.

F.5 Crisis Management Team

In the event of a significant crisis, the Zinc Crisis Management Team must be notified. The Zinc Canada Crisis Management Team can receive notification directly from Kidd's General Manager or delegate.

A crisis may exist or be developing if any of the following are true:

- Represents a risk to the safety and wellbeing of people.
- Actual or perceived threat to the public on environmental or health grounds
- Loading/unloading spill or maritime pollution that impacts on a coastline or waterway.
- Represents a significant risk to our reputation.
- Major operational/financial impact to businesses in a particular country

The Asset Manager or delegate must carefully monitor emergency situations to assess whether they have the potential of becoming a crisis. If the emergency situation has the potential of turning into a crisis, the Zinc Canada Crisis Management Team must be alerted. Use the Escalation Process Flowchart in the PL-200 Zinc Canada Crisis Plan for reference. Depending on the circumstances, full implementation of the Crisis Management Plan may be required.

The purpose of the crisis management plan is to manage operational crises effectively by ensuring:

- The site is prepared for the types of crises that may occur.
- A response, reporting structure and responsibilities are clearly defined.
- The consequences of crises are adequately assessed from an internal and external perspective, and appropriate resources are coordinated and supplied.
- Rapid, factual, and coordinated communications are established in the early stages of every crisis and maintained with internal and external audiences, with special emphasis on people's safety and environmental protection; and
- Reputational damage is minimized.

Refer to the Crisis Management Plan PL-200 Zinc Canada Crisis Management for more details.

Each notification will be recorded using the Initial Incident Information Form available in Noodle.

- Location, date, time, and brief description of initiating event.
- Name and position of person(s) reporting.
- A brief description of current activities and resources mobilised.
- Any government agency and/or media involvement.
- Name(s) of any other company(s) involved; and
- Any immediate needs by the local team.

G. Roles & Responsibilities

G.1 Incident Commander

Role: To assume overall responsibility for all the activities at the incident. The Incident Commander has the authority and responsibility for preliminary assessment, assigning resources and managing the incident at the site.

Responsibilities

- Establish the Incident Command Post (CPCR) and begin the Generic IC Checklist
- Assess the incident and declare the level of emergency.
- Initiate the Emergency Control Team as required.
- Assign scribe to document actions and key communications on an emergency log.
- Approve and authorize the incident action plan implementation.
- Inform all command personnel of information needs.
- Notify the Communication and Community Relations Coordinator of the situation.
- Coordinate all response activities with Mine Rescue, or other Emergency Services
- Manage the incident operations / what information goes to what group.
- Approve requests and release of additional resources.
- Approve the plan for demobilization.
- Announce “ALL CLEAR” or reduce emergency levels, as necessary.
- Document actions taken and key communications on personal log.

The Incident Commander (IC) Role at Kidd Mine is typically performed by an area superintendent. Formal Incident Command System (ICS) Level I and II training is required for all ICs at Kidd Mine. In addition to the Workplace Safety North, Mine Rescue Management Course and any applicable Kidd Mine Emergency Response Training.

Once trained, all Incident Commanders are required to be part of a rotating incident commander call out list, available to the CPCR attendants on the Emergency Information Board in CPCR.

G.2 Mine Rescue Briefing Officer

Role: To direct the mine rescue team(s) and equipment.

Responsibilities

- Follow the principal duties from the Mine Rescue Handbook
- Assess the mission and determine the response required.
- Determine if additional equipment or supplies will be required.
- Communicate with the Incident Commander with information and mission updates.
- Brief and direct the Mine Rescue Team(s)
- Coordinate all transportation required for the Team in conjunction with the IC.
- If required, implement shift rotation schedules for relief personnel.
- Document actions taken and key communications on an emergency log.

G.3 Tag Board Supervisor

Role: To account for underground and surface personnel

Responsibilities
The responsibility list below is a combination of the "Log Recorder," and the Tag Board and Refuge Station checklists. Maintain log of all pertinent emergency information and response actions. The Log should include but not limited to:

- Time of emergency alert / notifications
- All personnel contacted
- Actions of response teams
- Affected personnel
- Time of "All Clear" announcement

- Establish links with all Refuge Stations (minimum 5 rings)
- Fill out Refuge Station Reports (record time of calls)
- Make or receive calls as per IC request.
- Provide Refuge Station Reports to Tag Board Checkers
- Report any information on missing personnel.
- Make follow up calls to Refuge Stations
- Maintain log of all calls
- Submit reports to Incident Commander
- Any other duties as assigned.
- Document actions taken and key communications on personal Log.

G.4 Tag Board Checker

Role: To contact and determine the location of all personnel who may be affected by the emergency

Responsibilities

- Receive Refuge Station and Stench Gas reports.
- Record personnel accountability (tags)
- Report missing personnel to Incident Commander
- Submit reports to Telephone Operator
- Any other duties as assigned.
- Document actions taken and key communications on personal Log.

G.5 Security Lead (On Duty Personnel) or delegate assigned by the Incident Commander

Role: To maintain organized and controlled access and egress at mine site

- When security is not available, surface rock breaker or automation operators will be called by the Incident Commander to man the security gates.

Responsibilities

- Control traffic to facilitate the movement of emergency vehicles. (Ensure clear transport ways for: ambulances, fire, police, and mine rescue personnel)

- Escort emergency service resources as directed and/or arrange for responsible person to escort resources.
- Act as a liaison with municipal and provincial police; escort them to the Incident Command Post to meet the Incident Commander.
- Document actions taken and key communications on personal log.

G.6 Technical Expert Lead (Area Superintendent)

Role: To provide the Incident Commander with all possible technical support on affected area and assistance as required.

Responsibilities

- Inform Incident Command immediately on requirements.
- Document actions taken and key communications on personal Log.

G.7 Ventilation Technical Expert (Ventilation Engineer)

Role: To provide pertinent ventilation information as required

Responsibilities

- Provide detailed ventilation information.
- Provide ventilation drawings.
- Provide airborne contaminant details affecting ventilation.
- Provide current ventilation volumes, direction, and impact information.
- Provide reports on any ventilation issues.
- Participate in debrief.
- Any other duties as requested.
- Document actions taken and key communications on personal Log.

G.8 Ground Control Technical Expert (Sr. Ground Control Engineer)

Role: To provide pertinent ground control expertise as required

Responsibilities

- Provide detailed ground control monitoring information.
- Provide ground control options.
- Participate in debrief.
- Any other duties as requested.
- Document actions taken and key communications on personal Log.

G.9 Electrical Technical Expert (Shift Electrician)

Role: To provide pertinent electrical information as required

Responsibilities

- Provide detailed hoist electrical information.
- Provide electrical support.
- Participate in debrief.
- Any other duties as requested.
- Document actions taken and key communications on personal Log.

G.10 Environmental Technical Expert (Environmental Coordinator)

Role: To provide pertinent Environmental services (treatment ponds, etc.)

Responsibilities

- As per Environmental Emergency Response Plan

G.11 Logistics Support (Warehouse / Procurement)

Role: To coordinate availability of supplies

Responsibilities

- Ensure any required resources/supplies are available.
- Ensure additional resources are obtained as required.
- Ensure additional resources are demobilized according to schedule.
- Any other supply order duties as requested.
- Participate in debrief.
- Document actions taken and key communications on personal Log.

G.12 Liaison Officer

Role: To provide communication link between the Site Incident Commander and the 911 Emergency Services Lead (IC) when functional on site. Topically assigned by the IC.

Responsibilities

- Communicate approved site information to the 911 IC concerning the emergency.
- Communicate information from 911 IC to the Site IC
- Document actions taken and communications on personal Log.

G.13 Staging Area Manager (Security) or delegate assigned by the Incident Commander

Role: To manage the area where external resources arrive to the site

- When security is not available, surface rock breaker or automation operators will be called by the Incident Commander to man the security gates.

Responsibilities

- Establish Staging Area & layout.
- Ensure efficient check-in and coordinate process.
- Identify and track resources assigned to staging.
- Report resource status changes to Incident Commander

- Respond to requests for resources.
- Maintain Staging Area in orderly condition.
- Demobilize Staging Area in accordance with instructions.
- Ensure all entries to the Staging Area are secured for the duration of the emergency.
- Document actions taken and key communications on personal Log.

G.14 **Emergency Services** (Timmins Fire, Ministry of Natural Resources, OPP)

Role: To respond as necessary to the nature of the incident

Responsibilities

- Report to Incident Commander and obtain assignment.
- Obtain briefing from Incident Commander
- Assess scene and report to IC.
- Carry out response activities as directed.
- In the event of a fatality, immediately isolate area, mark location, and prevent any further access, until authorities arrive.
- Report to IC on status of objectives.
- Request additional resources from IC, as necessary.
- Demobilize as per IC instructions.
- Submit debrief notes to Incident Commander

G.15 Mine Rescue – Surface Specialists (Confined Space Rescue, CIMCO Hazmat, ORICA)

Role: To conduct response activities relevant to the nature and type of incident

Responsibilities

- Report to Mine Rescue Briefing Officer for incident status briefing and task assignment.
- Conduct response activities as per respective skill set training.
- In the event of a fatality, immediately isolate area, mark location, and prevent any further access, until authorities arrive.
- Deploy and demobilize as per BO instructions.

G.16 Perimeter Control Group (Mine Rescue)

Role: To organize all perimeter control support to responders and site

Responsibilities

- If necessary, arrange for responsible person to control access of people to the mine premises.
- Ensure clear transport ways for people and materials.
  - Ambulances
  - rescue personnel to rescue room

- trucks, etc. to warehouse or lay down yards
- Officials to main offices

- Monitor and control perimeters of the emergency or disaster site.
- Control traffic to facilitate the movement of emergency vehicles.
- Act as a liaison with municipal and provincial police.
- Provide Security and prevent looting of evacuated areas.
- Document actions taken and key communications on Time & Event Log

G.17 Site Accountability Control Group

Role: To coordinate activities for personnel accountability, assigned by Department Superintendent.

Responsibilities

- Check in with the Site Incident Commander to determine if and where needed.
- Liaise with Assembly point coordinators to obtain accountability status.
- Provide information to Incident Commander on personnel unaccounted for
- Attend briefings as required and provide input from an accountability perspective.
- Submit all accountability (headcount) documentation to the Incident Commander including forms, log sheets, checklists, and notes.

G.18 Technical Expert Unit Leader (Affected Area Superintendent)

Role: To provide the Incident Commander with all possible technical support on affected area and assistance as required.

Responsibilities

- Direct labour generally in accordance with instructions from Incident Command. According to operations in progress, you may require:
  - haulage workers,
  - officials in charge of specific areas and operations,
  - electricians, mechanics, and other craftsmen,
  - additional First Aid attendants,
  - messengers and responsible persons to take food and drinks where required,
- Inform Incident Command immediately on requirements.
- Coordinate clearance of main roads or accesses as soon as possible and organize efficient transport arrangements between the affected area and supply areas.
- In the event of a fatality, immediately isolate area, mark location, and prevent any further access, until authorities arrive.
- Liaise with Electrical Department as required by Incident Commander to ensure electrical availability.
- For an incident of extended operation, secure lighting plants for illumination of affected area during hours of darkness
- Estimate labour requirements for the following shift and inform Incident Command.
- Document actions taken and key communications on Time & Event Log

G.19 General Manager (Emergency Control Team Commander)

Role: To administer the overall control of site emergencies in support of Incident Command activities.

Responsibilities

- Obtain incident status information from ICP.
- Along with the appropriate personnel from the EOC, determine the priorities and plan of action with the health and safety of all concerned being the prime concern.
- Approve the final decision on all matters concerning the emergency or disaster.
- Ensure the Operations Log Recorder is available, and all events are properly recorded.
- Approve all information in regard to the emergency that will be released to the public including media personnel, as approved by Corporate Office
- Obtain updates from the affected area.
- Conduct initial and periodic briefings for key EOC personnel.
- Coordinate post incident debriefing.
- Ensure an effective interface within the EOC, the ICP and external agencies.
- Notify and update corporate office as required.
- Ensure a plan is in place for return of normal operations after “All Clear” is given.
- Authorize all movement in and out of the property except that of emergency vehicles.
- Authorize request for mutual aid as required.
- Ensure external agencies are updated.
- Coordinate and approve an incident action plan that supports ICP activities.
- Ensure an alternate identified chain of command in the event of insufficient or redeployed number of key personnel.
- Ensure external investigations are coordinated.
- Organize and implement long term recovery plan.
- Document actions taken and key communications on personal Log.

G.20 Liaison Officer

Role: Contact point for the representatives from assisting and cooperating agencies
Responsibilities

- Provide approved information concerning the emergency.
- Answer questions on behalf of Emergency Control Team Commander
- Advise Emergency Control Team Commander on behalf of agencies.
- Document actions taken and communications on personal Log.

G.21 Information Officer (Communication & Community Relations Coordinator)

Role: Communication link between the Site and media, public, employees, families / contractors.

Responsibilities

- Provide approved information concerning the emergency.
- Arrange for news media facilities.
- Prepare media releases as required.
- Conduct family notifications.
- Ensure Emergency Control Team Commander approves all information releases to employees, contractors, public and media.
- Prepare and constantly update background information.
- Establish a good rapport with the news media.
- Maintain a log of all communications and news releases.
- Develop a list of deceased, missing, and injured persons, including names, addresses, occupations, and telephone numbers.
- Arrange to direct relatives to a designated waiting area and provide facilities for dealing with their inquiries.
- Keep media away from grieving and worried individuals and families.
- Arrange for support through the Employee Assistance program, and/or the assistance of church officials to assist those in need of comfort.
- Obtain details of next of kin when identification of bodies is required.
- Arrange financial or other assistance for dependence, as required.
- Document actions taken and communications on personal Log.

G.22 OPERATIONS SECTION CHIEF (Emergency Services Technical Expert)

Role: To manage all emergency response strategic decisions.

Responsibilities

- Monitor the response activities and recommend modification of the plans accordingly, in consultation with the Planning Team and Emergency Control Team Commander
- Develop an Emergency Control Team action plan with the Planning Section
- Align the action plan through the Incident Commander
- Keep the Emergency Control Team Commander informed at all times on response activities.
- Meet with Logistics Section Chief to discuss the required resources.
- Ensure that adequate records are kept, and a log is maintained.
- Recommend contacting external resources for assistance.
- Communicate changes in weather conditions.
- Ensure that two-way communication occurs between the EOC and the ICP Commander
- Document actions takin/communications on personal Log

G.23 Accountability Group Supervisor

Role: To coordinate activities for personnel accountability.

Responsibilities

- Check in with the Incident Commander to determine if and where you are needed (ICP or EOC)
- Liaise with Assembly point coordinators to obtain accountability status.
- Provide information to Incident Commander on personnel unaccounted for
- Attend EOC briefings as required and provide input from an accountability perspective.
- Submit all accountability (headcount) documentation to the Operations Section Chief including forms, log sheets, checklists, and notes.

G.24 Planning Section Chief (Affected Area Superintendent)

Role: To coordinate overall planning of short, medium, and long- term response operations with Business Continuity efforts.

Responsibilities

- Collect, evaluate, disseminate, and use any information about the incident and status of resources.
- Obtain information required to understand the situation, predict course of action, and prepare alternative action plans.
- Brief and receive briefings from the Operations Section
- Establish information and report schedules for all components of the ICS.
- Establish a weather collection system when necessary.
- Supervise the preparation and distribution of the incident action plan.
- Identify the need for special resources.
- Provide periodic predictions on the incident.
- Compile and display status summary information.
- Advise the general staff of changes in the status.
- Provide a traffic plan.
- Document actions taken and key communications on Time & Event Log

G.25 Logistics Section Chief (Warehouse / Procurement)

Role: To ensure all resource requirements are met in supporting a response to an emergency involving Kidd Mine.

Responsibilities

- Determine function needs and assemble support appropriately.
- Provision of facilities, services, and materials in support of the incident (on site and off site)

- Participating in the development and implementation of the action plan.
- Coordinate and assist with any evacuation requirements.
- Obtaining briefings from and giving briefings to the Emergency Control Team Commander
- Provides input into the other plans.
- Coordinating requests for additional resources
- Reviewing the action plan to ensure all needs are accounted.
- Ensuring the safety of logistics personnel
- Estimating the future service and support requirements
- Recommending the release of resources 3

G.26 Finance / Admin Section Chief (Finance Manager)

Role: Managing all financial aspects of the incident and clerical needs in the EOC

Responsibilities

- Obtaining briefings from and giving briefings to the Emergency Control Team Commander
- Advising Emergency Control Team Commander and general staff when section is operational.
- Providing input into the planning sessions
- Coordinate EOC personnel accountability (sign in/out)
- Ensuring Administrative requirements provided - supply of forms, paper, pencils, pens for workstations.
- Ensuring ID available and used by all EOC personnel.
- Work financial issues with Logistics on refreshments/food provisions within EOC.
- Recording all personnel time, contracts procured, incident costs as required.
- Participating in demobilization planning – cost related
- Keeping proper documentation on all procedures

H. Emergency Response Training, Testing & Review

All Kidd employees and contractors are expected to be familiar with the company's Emergency Response Plan (ERP) and to know their respective roles and responsibilities during an emergency.

H.1 Emergency Response Training

To reinforce the need for a high level of preparedness, the ERP will be introduced and reviewed during:

- Employee Inductions,
- Refreshed during crew safety meetings, and
- Practice drills and exercises.

During employee and contractor inductions, individuals are instructed on general emergency and mine safety rules. New employees and contractors will also be introduced to the ERP and its location on Kidd Operations Homepage and on Noodle.

Area-specific inductions provide employees and contractors with their respective evacuation procedures, assembly point locations and first aid and fire extinguisher locations. Employees are also made aware of hazards in their work area as well as any particular personal protective equipment requirements for their work area. All others on site must be escorted workers or visitors and as such shall follow KOP-SAF-SOP-00011 –Escorted Visitor and Worker Permit Procedure.

All supervisors and contact persons for contractors must ensure their employees understand those procedures relevant to their work area and ensure that their employees are familiar with and recognize the proper course of action in the event of an emergency situation. In addition, supervisors and contact persons must share any revisions to the emergency response plan with employees and contractors.

Members of the Emergency Control Team and CPCR will review the emergency response plan on a yearly basis and be involved in tabletop exercises. Any new members of the Emergency Control Team will be familiarized with the emergency response plan within two months of joining the team. The training department will forward the names of new emergency control team members to the safety coordinator, who will arrange for training.

In order to be considered a Kidd Operations Incident Commander, the following training is required.

- ICS (Incident Command System)
- Mine Rescue Supervisory / Management Mine Rescue Course

All active Mine Rescue personnel at Kidd Operations must meet the requirements as outlined in the Workplace Safety North Mine Rescue Handbook and must receive at least six 8-hour training sessions each year along with other mandated responsibilities. Additional details are outlined in the Mine Rescue Recruitment and Training Program KMN-17-HS-PRG-00001 or the Mine Rescue Handbook.

H.2 Emergency Response Testing

The Emergency Response Coordinator shall ensure the emergency plan is tested at a frequency that complies with applicable legislation. The drills may encompass environmental, surface, or other situations in addition to underground emergencies.

For Environmental Emergency Drills, Senior Environmental Coordinator will plan and conduct the drills according to the ERP and the Spill Prevention and Contingency Plan. Records of drills will be maintained by the Safety Supervisor or designate. All personnel will respond to the drill as per their planned response indicates.

Exercises are intended to accomplish a number of purposes.
They:

1. Validate the functions plans built into the Emergency Response Plan
2. Increase familiarity with the Emergency Response Plan
3. Increase confidence in the Emergency Response Plan

The exercises allow emergency support staff to become familiar with the procedures, facilities, and systems they will actually use in emergency situations.

Five types of exercises are described below:

Orientation Exercise: These are usually done in a classroom environment and are designed to familiarize participants with the Emergency Response Plan, procedures, and amendments.

Tabletop Exercise: This type of exercise features a detailed scenario and the input of a series of pre-planned messages to stimulate discussion, information sharing and decision-making. Participants begin to simulate their actual role during an emergency. The scope of the exercise is generally limited to one or two problems so that participants can focus on specific tasks and objectives.

Drill: The drill tests a single emergency site support function and may involve actual alarm activation. Its effectiveness lies in focusing on a relatively limited portion of the overall response function in order to evaluate and improve it. Examples include evacuation, rescue, and bomb threat.

Coordination Exercise: Coordination Exercises combine a tabletop exercise with the partial or full activation of an Incident Command Post and a simulated emergency scene. They include activation of communications that may be available during full implementation of an emergency response plan. Actual response resources (other than communication) are not deployed, but extensive use of exercise control devices such as the input of pre-planned messages helps to simulate an emergency situation.

Full-Scale Exercise: The full-scale exercise adds a field component to interact with a coordination exercise through actual and simulated messages. It tests the deployment of seldom used resources and involves policy, coordination, operations, and field personnel. Additional attention to safety must be given as emergency response resources are actually deployed and, although the exercise is a simulated emergency, personnel will still find it a stressful situation.

The Safety/Emergency Response Supervisor must assess the number and type of exercises required to validate the Emergency Response Plan. A schedule of proposed exercises (Table I-1) shall be submitted to the Manager of Health & Safety on an annual basis.

Type	Purpose of Exercise	Duration of Exercise (Hrs)	Target Audience	Proposed Dates
U/G Evacuation Drill	Test Personnel Awareness	120 min.	All U/G Personnel	4/year
Surface Evacuation Drill	Test Personnel Awareness	30 min	Designated Personnel	1/year
Orientation Exercise	Tactical Plan Familiarization	30 min.	Incident Commanders	Initial & Reference
Drill	Simulate roles associated with Tactical Plan	2	Emergency Control Team	1/year
Tabletop Exercise	Run-through ERP / procedures	3	Local external emergency response resources and available site personnel	1/year

Full Scale Exercise	Validate Effectiveness of ERP	6-8	Local emergency response resources and available site ECT personnel	1/3 years

Debriefing must take places for all events, planned and unplanned. The Incident Commander will be involved in preparation of an internal report outlining the chronology of the emergency and its subsequent response.

Debriefing will include but is not limited to.

- Identify the root cause of the emergency.
- Properly document all aspects of response
- Review and amend existing plans and resources as required.
- List reporting requirements.
- Evaluate response and cooperation of outside resources.
- Develop action items with assigned responsibilities and timetable for completion.
- Action items to be tracked for completion.
- Environmental action items to be tracked and reported as required.

H.3 Emergency Response Review

Emergency Response Plan (ERP) that fully adheres to our Sustainable Development Standards, the Environmental Program, and the Corporate Crisis Management Plan.

The ERP will be reviewed annually by the Manager of Health & Safety, Manager of Operations, Manager of Environment, all Incident Commanders, Certified Worker Rep, and any other designated stakeholder that may influence change to ensure the effectiveness and relevance of this document.

The review process must also take into consideration the site/department risk registers (Risk Manager) and the environmental management systems identification of impacts and activities to evaluate the following categories:

- Personal physical injury or potential health risk
- Damage to property or process.
- Environmental incidents on or off site
- Fire or flood damage.
- Any other potential risks identified through the analysis.

In addition to the Mine ERP, emergency response plans for CIMCO and ORICA are also available on the Kidd Operations Home Page under Emergency Response Plan. Similar to the Kidd ERP, these documents are also reviewed annually to ensure their effectiveness.

I. Definitions

For the purposes of applying the principles of ICS, the following terms and definitions apply:

Agency: A division of government with a specific function offering a particular kind of assistance. In the Incident Command System, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance). Governmental organizations are most often in charge of an incident, though in certain circumstances private-sector organizations may be included. Additionally, nongovernmental organizations may be included to provide support.

Agency Administrator/Executive: The official responsible for administering policy for an agency or jurisdiction. An Agency Administrator/Executive (or other public official with jurisdictional responsibility for the incident) usually makes the decision to establish an Area Command.

Agency Dispatch: The agency or jurisdictional facility from which resources are sent to incidents.

Agency Representative: A person assigned by a primary, assisting, or cooperating Federal, State, tribal, or local government agency, or nongovernmental or private organization, that has been delegated authority to make decisions affecting that agency's or organization's participation in incident management activities following appropriate consultation with the leadership of that agency.

All-Hazards: Describing an incident, natural or human-caused, that warrants action to protect life, property, environment, and public health or safety, and to minimize disruptions of government, social, or economic activities.

Allocated Resource: Resource dispatched to an incident.

Area Command: An organization established to oversee the management of multiple incidents that are each being handled by a separate Incident Command System organization or to oversee the management of a very large or evolving incident that has multiple Incident Management Teams engaged. An Agency Administrator/Executive or other public official with jurisdictional responsibility for the incident usually makes the decision to establish an Area Command. An Area Command is activated only if necessary, depending on the complexity of the incident and incident management span-of-control considerations.

Assessment: The process of acquiring, collecting, processing, examining, analyzing, evaluating, monitoring, and interpreting the data, information, evidence, objects, measurements, images, sound, etc., whether tangible or intangible, to provide a basis for decision making.

Assigned Resource: Resource checked in and assigned work tasks on an incident.

Assignment: Task given to a personnel resource to perform within a given operational period that is based on operational objectives defined in the Incident Action Plan.

Assistant: Title for subordinates of principal Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be assigned to Unit Leaders.

Assisting Agency: An agency or organization providing personnel, services, or other resources to the agency with direct responsibility for incident management. See Supporting Agency.

Available Resource: Resource assigned to an incident, checked in, and available for a mission assignment, normally located in a Staging Area.

Branch: The organizational level having functional or geographical responsibility for major aspects of incident operations. A Branch is organizationally situated between the Section Chief and the Division or Group in the Operations Section, and between the Section and Units in the Logistics Section. Branches are identified by the use of Roman numerals or by functional area.

Cache: A predetermined complement of tools, equipment, and/or supplies stored in a designated location, available for incident use.

Camp: A geographical site within the general incident area (separate from the Incident Base) that is equipped and staffed to provide sleeping, food, water, and sanitary services to incident personnel.

Categorizing Resources: The process of organizing resources by category, kind, and type, including size, capacity, capability, skill, and other characteristics. This makes the resource ordering and dispatch process within and across organizations and agencies, and between governmental and nongovernmental entities, more efficient, and ensures that the resources received are appropriate to their needs.

Certifying Personnel: The process of authoritatively attesting that individuals meet professional standards for the training, experience, and performance required for key incident management functions.

Chain of Command: The orderly line of authority within the ranks of the incident management organization.

Check-In: The process through which resources first report to an incident. All responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander.

Chief: The Incident Command System title for individuals responsible for management of functional Sections: Operations, Planning, Logistics, Finance/Administration, and Intelligence/Investigations (if established as a separate Section).

Command: The act of directing, ordering, or controlling by virtue of explicit statutory, regulatory, or delegated authority.

Command Staff: The staff who report directly to the Incident Commander, including the Information Officer, Safety Officer, Liaison Officer, and other positions as required. They may have an assistant or assistants, as needed.

Common Operating Picture: An overview of an incident by all relevant parties that provides incident information enabling the Incident Commander/Unified Command and any supporting agencies and organizations to make effective, consistent, and timely decisions.

Common Terminology: Normally used words and phrases—avoiding the use of different words/phrases for same concepts—to ensure consistency and to allow diverse incident management and support organizations to work together across a wide variety of incident management functions and hazard scenarios.

Communications: The process of transmission of information through verbal, written, or symbolic means.

Communications/Dispatch Centre: Agency or interagency dispatch centres, 911 call centres, emergency control or command dispatch centres, or any naming convention given to the facility and staff that handles emergency calls from the public and communication with emergency management/response personnel.

Complex: Two or more individual incidents located in the same general area and assigned to a single Incident Commander or to Unified Command.

Cooperating Agency: An agency supplying assistance other than direct operational or support functions or resources to the incident management effort.

Coordinate: To advance an analysis and exchange of information systematically among principals who have or may have a need-to-know certain information to carry out specific incident management responsibilities.

Corrective Actions: The implementation of procedures that are based on lessons learned from actual incidents or from training and exercises.

Delegation of Authority: A statement provided to the Incident Commander by the Agency Executive delegating authority and assigning responsibility. The delegation of authority can include objectives, priorities, expectations, constraints, and other considerations or guidelines, as needed. Many agencies require written delegation of authority to be given to the Incident Commander prior to assuming command on larger incidents.

Demobilization: The orderly, safe, and efficient return of an incident resource to its original location and status.

Deputy: A fully qualified individual who, in the absence of a superior, can be delegated the authority to manage a functional operation or to perform a specific task. In some cases, a deputy can act as relief for a superior, and therefore must be fully qualified in the position. Deputies generally can be assigned to the Incident Commander, General Staff, and Branch Directors.

Director: The Incident Command System title for individuals responsible for supervision of a Branch.

Dispatch: The ordered movement of a resource or resources to an assigned operational mission, or an administrative move from one location to another.

Division: The organizational level having responsibility for operations within a defined geographic area. Divisions are established when the number of resources exceeds the manageable span of control of the Section Chief. See Group.

Emergency: Any incident, whether natural or human-caused, that requires responsive action to protect the safety, health, or welfare of people or to limit damage to property.

Emergency Management/Response Personnel: Includes Federal, Provincial, and municipal governments, NGOs, private sector-organizations, critical infrastructure owners and operators, and all other organizations and individuals who assume an emergency management role. (Also known as emergency responder.)

Emergency Operations Centre (EOC): The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, medical services), by jurisdiction (e.g., federal, provincial, regional, municipal), or by some combination thereof.

Emergency Operations Plan: An ongoing plan for responding to a wide variety of potential hazards.

Emergency Public Information: Information that is disseminated primarily in anticipation of or during an emergency. In addition to providing situational information to the public, it frequently provides directive actions required to be taken by the general public.

Evacuation: The organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Finance/Administration Section: The Incident Command System Section responsible for all administrative and financial considerations surrounding an incident.

Function: One of the five major activities in the Incident Command System: Command, Operations, Planning, Logistics, and Finance/Administration. A sixth function, Intelligence/Investigations, may be established, if required, to meet incident management needs. The term function is also used when describing the activity involved (e.g., the planning function).

General Staff: A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. An Intelligence/Investigations Chief may be established, if required, to meet incident management needs.

Group: An organizational subdivision established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. See Division.

Hazard: Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

Incident: An occurrence, natural or human-caused, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

Incident Action Plan: An oral or written plan containing general objective reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.

Incident Base: The location at which primary Logistics functions for an incident are coordinated and administered. There is only one Base per incident. (Incident name or other designator will be added to the term Base.) The Incident Command Post may be co-located with the Incident Base.

Incident Command: The Incident Command System organizational element responsible for overall management of the incident and consisting of the Incident Commander (either single or unified command structure) and any assigned supporting staff.

Incident Commander (IC): The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Incident Command Post (ICP): The field location where the primary functions are performed. The ICP may be co-located with the Incident Base or other incident facilities.

Incident Command System (ICS): A standardized on-scene emergency management construct specifically designed to provide an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, to organize field-level incident management operations.

Incident Management: The broad spectrum of activities and organizations providing effective and efficient operations, coordination, and support applied at all levels of government, utilizing both governmental and nongovernmental resources to plan for, respond to, and recover from an incident, regardless of cause, size, or complexity.

Incident Objectives: Statements of guidance and direction needed to select appropriate strategy(s) and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow strategic and tactical alternatives.

Information Officer: A member of the Command Staff responsible for interfacing with the public and media and/or with other agencies with incident-related information requirements.

Interoperability: Ability of systems, personnel, and equipment to provide and receive functionality, data, information, and/or services to and from other systems, personnel, and equipment, between both public and private agencies, departments, and other organizations, in a manner enabling them to operate effectively together. Allows emergency management/response personnel and their affiliated organizations to communicate within and across agencies and jurisdictions via voice, data, or video-on-demand, in real time, when needed, and when authorized.

Job Aid: Checklist or other visual aid intended to ensure that specific steps of completing a task or assignment are accomplished.

Jurisdiction: A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., federal, provincial, territorial, local boundary lines) or functional (e.g., law enforcement, public health).

Jurisdictional Agency: The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.

Key Resource: Any publicly or privately controlled resource essential to the minimal operations of the economy and government.

Liaison: A form of communication for establishing and maintaining mutual understanding and cooperation.

Liaison Officer: A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies or organizations.

Logistics: The process and procedure for providing resources and other services to support incident management.

Logistics Section: The Incident Command System Section responsible for providing facilities, services, and material support for the incident.

Management by Objectives: A management approach that involves a five-step process for achieving the incident goal. The Management by Objectives approach includes the following: establishing overarching incident objectives; developing strategies based on overarching incident objectives; developing and issuing assignments, plans, procedures, and protocols; establishing specific, measurable tactics or tasks for various incident-management functional activities and directing efforts to attain them, in support of defined strategies; and documenting results to measure performance and facilitate corrective action.

Manager: Individual within an Incident Command System organizational unit who is assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).

Mitigation: Activities providing a critical foundation in the effort to reduce the loss of life and property from natural and/or human-caused disasters by avoiding or lessening the impact of a disaster and providing value to the public by creating safer communities. Mitigation seeks to fix the cycle of disaster damage, reconstruction, and repeated damage. These activities or actions, in most cases, will have a long-term sustained effect.

Mobilization: The process and procedures used by all organizations—Federal, State, tribal, and local—for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.

Mobilization Guide: Reference document used by organizations outlining agreements, processes, and procedures used by all participating agencies/organizations for activating, assembling, and transporting resources.

Mutual Aid Agreement or Assistance Agreement: Written or oral agreement between and among agencies/organizations and/or jurisdictions that provides a mechanism to quickly obtain emergency assistance in the form of personnel, equipment, materials, and other associated services. The primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and/or after an incident.

Nongovernmental Organization (NGO): An entity with an association that is based on interests of its members, individuals, or institutions. It is not created by a government, but it may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. Examples of NGOs include faith-based charity organizations and the Red Cross. NGOs, including voluntary and faith-based groups, provide relief services to sustain life, reduce physical and emotional distress, and promote the recovery of disaster victims. Often these groups provide specialized services that help individuals with disabilities. NGOs and voluntary organizations play a major role in assisting emergency managers before, during, and after an emergency.

Officer: The Incident Command System title for a person responsible for one of the Command Staff positions of Safety, Liaison, and Information.

Operational Period: The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Operational periods can be of various lengths, although usually they last 12 to 24 hours.

Operations Section: The Incident Command System (ICS) Section responsible for all tactical incident operations and implementation of the Incident Action Plan. In ICS, the Operations Section normally includes subordinate Branches, Divisions, and/or Groups.

Organization: Any association or group of persons with like objectives. Examples include, but are not limited to, governmental departments and agencies, nongovernmental organizations, and the private sector.

Planning Meeting: A meeting held as needed before and throughout the duration of an incident to select specific strategies and tactics for incident control operations and for service and support planning. For larger incidents, the Planning Meeting is a major element in the development of the Incident Action Plan.

Planning Section: The Incident Command System Section responsible for the collection, evaluation, and dissemination of operational information related to the incident, and for the preparation and documentation of the Incident Action Plan. This Section also maintains information on the current and forecasted situation and on the status of resources assigned to the incident.

Portability: An approach that facilitates the interaction of systems that are normally distinct. Portability of radio technologies, protocols, and frequencies among emergency

management/response personnel will allow for the successful and efficient integration, transport, and deployment of communications systems when necessary. Portability includes the standardized assignment of radio channels across jurisdictions, which allows responders to participate in an incident outside their jurisdiction and still use familiar equipment.

Pre-Positioned Resource: A resource moved to an area near the expected incident site in response to anticipated resource needs.

Preparedness: A continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. Within the National Incident Management System, preparedness focuses on the following elements: planning; procedures and protocols; training and exercises; personnel qualification and certification; and equipment certification.

Preparedness Organization: An organization that provides coordination for emergency management and incident response activities before a potential incident. These organizations range from groups of individuals to small committees to large standing organizations that represent a wide variety of committees, planning groups, and other organizations (e.g., Citizen Corps, Local Emergency Planning Committees, and Critical Infrastructure Sector Coordinating Councils).

Prevention: Actions to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, pre-empting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

Private Sector: Organizations and individuals that are not part of any governmental structure. The private sector includes for-profit and not-for-profit organizations, formal and informal structures, commerce, and industry.

Protocol: A set of established guidelines for actions (which may be designated by individuals, teams, functions, or capabilities) under various specified conditions.

Public Information: Processes, procedures, and systems for communicating timely, accurate, and accessible information on an incident's cause, size, and current situation; resources committed; and other matters of general interest to the public, responders, and additional stakeholders (both directly affected and indirectly affected).

Recovery: The development, coordination, and execution of service- and site-restoration plans; the reconstitution of government operations and services; individual, private-sector, nongovernmental, and public assistance programs to provide housing and to promote restoration; long-term care and treatment of affected persons; additional measures for social, political, environmental, and economic restoration; evaluation of the incident to identify lessons learned; post incident reporting; and development of initiatives to mitigate the effects of future incidents.

Recovery Plan: A plan developed to restore an affected area or community.

Resource Tracking: A standardized, integrated process conducted prior to, during, and after an incident by all emergency management/response personnel and their associated organizations.

Resources: Personnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an Emergency Operations Centre.

Response: Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavourable outcomes. As indicated by the situation, response activities include applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into nature and source of the threat; ongoing public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and specific law enforcement operations aimed at pre-empting, interdicting, or disrupting illegal activity, and apprehending actual perpetrators and bringing them to justice.

Safety Officer: A member of the Command Staff responsible for monitoring incident operations and advising the Incident Commander on all matters relating to operational safety, including the health and safety of emergency responder personnel.

Section: The Incident Command System organizational level having responsibility for a major functional area of incident management (e.g., Operations, Planning, Logistics, Finance/Administration, and Intelligence/Investigations (if established)). The Section is organizationally situated between the Branch and the Incident Command.

Single Resource: An individual, a piece of equipment and its personnel complement, or a crew/team of individuals with an identified work supervisor that can be used on an incident.

Sector: On some large incidents, such as wildland fires, with challenging or difficult terrain and limited access, a Division Supervisor's ability to provide adequate tactical supervision may be exceeded. Divisions may be further sub-divided into Sectors. A Sector is a geographic area within a division.

Situation Report: Confirmed or verified information regarding the specific details relating to an incident.

Span of Control: The number of resources for which a supervisor is responsible, usually expressed as the ratio of supervisors to individuals. An appropriate span of control is between 1:3 and 1:7, with optimal being 1:5, or between 1:8 and 1:10 for many large-scale law enforcement operations.

Staging Area: Temporary location for available resources. A Staging Area can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.

Status Report: Information specifically related to the status of resources (e.g., the availability or assignment of resources).

Strategy: The general plan or direction selected to accomplish incident objectives.

Strike Team: A set number of resources of the same kind and type that have an established minimum number of personnel, common communications, and a leader.

Supervisor: The Incident Command System title for an individual responsible for a division or Group.

Supporting Agency: An agency that provides support and/or resource assistance to another agency. See Assisting Agency.

System: Any combination of facilities, equipment, personnel, processes, procedures, and communications integrated for a specific purpose.

Tactics: The deployment and directing of resources on an incident to accomplish the objectives designated by strategy.

Task Force: Any combination of resources assembled to support a specific mission or operational need. All resource elements within a Task Force must have common communications and a designated leader.

Technical Specialist: Person with special skills that can be used anywhere within the Incident Command System organization. No minimum qualifications are prescribed, as technical specialists normally perform the same duties during an incident that they perform in their everyday jobs, and they are typically certified in their fields or professions.

Technology Support: Assistance that facilitates incident operations and sustains the research and development programs that underpin the long-term investment in the Nation's future incident management capabilities.

Threat: Natural or human-caused occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property.

Tools: Those instruments and capabilities that allow for the professional performance of tasks, such as information systems, agreements, doctrine, capabilities, and legislative authorities.

Type: An Incident Command System resource classification that refers to capability. Type 1 is generally considered to be more capable than Types 2, 3, or 4, respectively, because of size, power, capacity, or (in the case of Incident Management Teams) experience and qualifications.

Unified Approach: The integration of resource management, communications and information management, and command and management in order to form an effective system.

Unified Area Command: Version of command established when incidents under an Area Command are multijurisdictional. See Area Command.

Unified Command (UC): An Incident Command System application used when more than one agency has incident jurisdiction or when incidents cross-political jurisdictions. Agencies work together through the designated members of the UC, often the senior persons from agencies and/or disciplines participating in the UC, to establish a common set of objectives and strategies and a single Incident Action Plan.

Unit: The organizational element with functional responsibility for a specific incident planning, logistics, or finance/administration activity.

Unit Leader: The individual in charge of managing Units within an Incident Command System (ICS) functional Section. The Unit can be staffed by a number of support personnel providing a wide range of services. Some of the support positions are pre-established within ICS (e.g., Base/Camp Manager), but many others will be assigned as technical specialists.

Unity of Command: An Incident Command System principle stating that each individual involved in incident operations will be assigned to only one supervisor.

J. Reference Documents

Index of Emergency Documents and Check Lists available in Noodle

- KMN-17-ERP-FRM-14140 Checklist - CPCR Attendant - Power Failure
- KMN-17-ERP-FRM-14141 Checklist - Incident Commander - Power Failure
- KMN-17-ERP-FRM-14142 Checklist - Electrician Resetting Power - Power Failure
- KMN-17-ERP-FRM-28143 Checklist - Maintenance - Power Outage, CO2 pH Suppression System
- KMN-17-ERP-FRM-28144 Checklist - CPCR Attendant - Power Outage, CO2 pH Suppression System
- KMN-17-ERP-FRM-28145 Checklist - Environmental Department - Power Outages Affecting Carbon Dioxide pH Suppression System
- KMN-17-ERP-FRM-28146 Checklist - CPCR Attendant - Power Outage, Lime Plant and Chemical Dosing System
- KMN-17-ERP-FRM-28147 Checklist - Maintenance - Power Outage, Lime Plant & Chemical Dosing
- KMN-17-ERP-FRM-28148 Checklist - Environmental Department - Power Outage, Lime Plant and Chemical Dosing System
- KMN-17-ERP-FRM-28140 Checklist - CPCR Attendant - Power Outage affecting Service Water System
- KMN-17-ERP-FRM-28141 Checklist - Plant Operator - Power Outage affecting Service Water System
- KMN-17-ERP-FRM-28142 Checklist - Environmental Department - Power Outage affecting Service Water System
- KMN-17-ERP-FRM-17140 Checklist - Incident Commander and Support Personnel - Gas, Combustible
- KMN-17-ERP-FRM-25140 Checklist - Environmental Department - Dam Overtopping
- KMN-17-ERP-FRM-25141 Checklist - CPCR Attendant - Dam Overtopping
- KMN-10-ENV-MAN-00005 Water Management Manual
- KMN-17-ERP-FRM-26142 Checklist - Environmental Department - Flood, Periods of High Flow
- KMN-17-ERP-FRM-26141 Checklist - Environmental Department - Flood, Low pH, or High Zinc
- KMN-17-ERP-FRM-26140 Checklist - Environmental Department - High pH
- KOP-ENV-FRM-00006 Checklist - Environmental Response - Deposit Out of Normal Course of Events
- KMN-15-ENV-PLN-00001 Spill Prevention, Contingency and Response Plan (SPCP)
- KOP-ENV-SOP-00012 Environmental Competence Training and Awareness Procedure
- KMN-15-ENV-PLN-00001 Spill Prevention, Contingency and Response Plan (SPCP)
- KMN-10-ENV-REG-00003 PCB and Non-PCB Equipment Inventory - Mine
- KMN-17-ERP-FRM-24140 Checklist - Incident Commander - Ammonia Response
- KMN-17-ERP-FRM-24141 Checklist - CPCR Attendant - Ammonia Response
- KMN-17-ERP-FRM-17145 Checklist - CPCR Attendant - Gas, Combustible
- KMN-17-ERP-FRM-27140 Checklist - CPCR Attendant - Bomb Threat

- KMN-17-ERP-FRM-27142 Evacuation-Bomb Search Form
- KMN-17-ERP-FRM-27143 Bomb Threat Form
- KMN-17-ERP-FRM-27144 Checklist - Incident Commander - Bomb Threat
- KMN-17-ERP-FRM-00002 Checklist - CPCR Attendant - Emergency Evacuation of Administration Building
- KMN-17-ERP-FRM-12144 Checklist - Incident Commander - Critical Injury
- KMN-17-ERP-FRM-13140 Checklist - CPCR Attendant - Fire Underground
- KMN-17-ERP-FRM-13141 Checklist - Incident Commander - Fire Underground
- KMN-17-ERP-FRM-15140 Checklist - CPCR Attendant - Seismic Event
- KMN-17-ERP-FRM-15141 Checklist - Ground Control Personnel - Seismic Event
- KMN-17-ERP-FRM-16140 Checklist - Ground Control Personnel - Major Fall of Ground
- KMN-17-ERP-FRM-16142 Checklist - Incident Commander - Major Fall of Ground/Seismic Event
- KMN-17-ERP-FRM-16143 Checklist - CPCR Attendant - Major Fall of Ground
- KMN-17-ERP-FRM-17143 Checklist - Incident Commander - Gas, SO2 Event
- KMN-17-ERP-FRM-17146 Checklist - CPCR Attendant - Gas, SO2 Event
- KMN-17-ERP-FRM-23140 Checklist - CPCR Attendant - Forest Fire
- KMN-17-ERP-FRM-23141 Surface Fire, Checklist for the CPCR Attendant
- KMN-17-ERP-FRM-23143 Checklist - CPCR Attendant - Natural Gas Incident
- KMN-17-ERP-FRM-29140 Checklist - CPCR Attendant - Spill Response
- KMN-17-ERP-FRM-29143 Checklist - CPCR - Train
- KMN-17-ERP-FRM-29144 Checklist - Incident Commander - Train Incident
- KMN-17-HS-FRM-00009 Checklist - Incident Commander - Chlorine Leak, Feldman Lake Pumphouse
- KOP-SAF-GDL-00010 Notice and Reporting Under the Act A.S. 51 to 53 & Reg. R.S. 21 Guideline
- KOP-ENV-SOP-00005 Environmental Incident Response and Reporting Procedure
- KMN-15-ENV-FRM-00001 Internal Environmental Incident Report Form
- KMN-15-ENV-FRM-00002 External Environmental Incident Report Form
- KMN-08-VT-GDL-01611 #2 Shaft Freeze-Up Contingency Plan
- KMN-08-PF-PRO-00003 Response to a Pastefill Facility Power Failure
- KMN-08-PF-PRO-00004 Shutting Down Pastefill Plant in the event of Fire at Pastefill Facility
- KMN-08-PF-PRO-00005 Loss of Water Supply to Pastefill Plant
- KOP-SAF-GDL-00015 Lightning Guideline
- KOP-MTC-GDL-00002 Working Around Power Lines Guideline
- XCC-CD1-01-SD-17 Emergencies, Crisis, and Business Continuity (https://hsec.glencore.net/_layouts/15/WopiFrame.aspx?sourcedoc=/Documents/Policies/Emergency_Response_and_Crisis_Management_Policy_V1-0.docx&action=default&DefaultItemOpen=1)
- KOP-HR-SOP-00015 Media Relations
- KOP-SAF-SOP-00007 Incident Management and Investigation Procedure
- Zinc Canada Crisis Policy
- KMN-15-ENV-PLN-00001 Spill Prevention and Contingency Plan
- Legislated Spill Reporting Requirements
- North American Emergency Response Guide
- Power Shut Down
- Initial Site Evacuation Plan
- KOP-HR-SOP-00015 Media Relations
- KMN-03-HR-PRO-00010 Training Needs Analysis Procedure
- KMN-15-ENV-FRM-00001 Internal Environmental Incident Report Form
- KMN-08-VT-GDL-01611 #2 Shaft Freeze-Up Contingency Plan
- KOP-SAF-SOP-00011 Escorted Visitor and Worker Permit Procedure
- KMN-17-ERP-FRM-30141 Checklist - CPCR Attendant - Injured Person Report, Surface or Underground
- KMN-17-ERP-SO-00001 STANDING ORDER – Performing Hot Work when Permits are Suspended.

- KMN-17-ERP-SO-00002 STANDING ORDER – Providing a Safe Work Environment during a Forest Fire
- KMN-08-OP-PRG-00009 – Water Management Program
- KMN-08-CT-PRO-00006 – Spring Run-off Walkthrough Procedure and Checklist

K. Appendix

- Mine Rescue Contact Information / Rapid Notify Link
- Internal Emergency Contact Information
- External Emergency Contact Information
- ERP Equipment & Material
- Radio Frequencies
- Orica – Kidd Creek Site ERP
- CIMCO Working with Ammonia Safety Program
- Zinc Canada Crisis Management Plan
- Fire Hydrant-Water locations.
- Legislated Spill Reporting Requirements
- Mine Site Photo
- Ministry of Labour Reporting Requirements

Mine Rescue Contacts

The active list of names and phone numbers for Mine Rescue Personnel are all maintained in the RAVE MOBILE SAFETY call-out system. In case of an emergency, please contact the Nurse's Station to activate RAVE.

Internal Emergency Contact Information

Emergency contact names and phone numbers for underground support are listed below.

NAME	POSITION	WORK	MOBILE	OTHER
Dawid Myburgh	General Manager	8843	705-266-5452	
Harold Bird	Mill Manager	7211	705-406-5268	705-235-8121
Aaron Martyn	Interim Manager, Mine Operations	8532	705-266-3302	
Roxana Johnston	Manager, Finance	8792	705-288-5306	
Chris Deschesnes	Manager, Health, and Safety	8832	705-266-4103	705-267-1613
Josh Nichols	Assurance Coordinator	8667		
Tammy Harper	Senior Industrial Hygiene Coordinator and OHC Supervisor	7441	705-365-6923	
Eric Archibald	Manager, Mine Technical Services	8265		
Todd Pretsell	Manager, Maintenance and Engineering	8990	705-406-4853	705-267-8990
Julie Clancy	Superintendent, Human Resources	8840	705-266-4411	705-267-8840
Gilles Paradis	Senior Mine Systems Engineer	8914	705-303-2276	
Dave Counter	Senior Ground Control Engineer	8644	705-365-7019	705-264-9346
Dan Vallee	Superintendent, Pastefill and Oreflow	8982	705-288-2626	705-267-5938
Rick Johnson	Superintendent Fixed Plant Maintenance	8839	705-365-7912	705-579-2305
Henri de Klerk	Superintendent, Drilling and Development			
Frank Seguin	Superintendent, Information Technology	8777	705-406-6424	
Dave Seguin	Certified Elected Worker Rep	8654	705-288-5134	
Jesse Rumeliski	Certified Worker Rep		705-910-2322	
Mathew Richards	Certified Worker Rep		705-262-6848	

External Emergency Contact Information

External resources are held by outside agencies and commercial suppliers that may be accessed during an emergency or following an emergency for transition-to-recovery procedures.

EXTERNAL AGENCY	PHONE NUMBERS	
Airport Services (Dave Dayment)	705-360-2636	-
Ambulance Service (Algonquin Blvd E)	1-877-259-7722	911
CBC (Ontario)	-	1-800-668-0060
Drinking Water (Fortier Beverages, Mitch Fortier)	705-272-4305, ext. 228	-
Environmental 360 Solutions (E360S)	705-262-4504	705-531-3063
Fire (Timmins Department)	705-360-2626	911
Valard Construction	705-267-1742	-
Hydro One	-	1-800-434-1235
McDougall Energy Inc.	705-264-6298	-
Ministry of Environment and Climate Change (Timmins District)	705-235-1500	1-800-380-6615
Ministry of Labour (spill reporting)		1-800-268-6060
Ministry of Labour Health and Safety Contact Centre	-	1-877-202-0008
Ministry of Natural Resources and Forestry	-	1-800-667-1940
Ministry of Northern Development and Mines	-	1-888-415-9845
Natural Gas (Enbridge Gas)	-	1-866-763-5427
NorthernTel	-	1-800-360-8555
Ontario Provincial Police (South Porcupine Detachment)	705-235-3345	911
Ontario Provincial Police Headquarters – Orillia	705-329-6111	-
Public Information (Steph Palmateer)	705-360-2602	-
Public Works (Ken Krcel)	705-360-2606	-
Technical Standards and Safety Authority		1-877-682-8772
Timmins and District Hospital	705-267-2131	-
Timmins Police Service	705-264-1201	911
Workplace Safety North	-	1-888-730-7821

Mine Site Radio Frequencies

CHANNEL #		MHz				
Portable	Cap lamp	RX-FREQ	TX-FREQ	Squelch	Location	Purpose
		156.4500	172.3750	97.4000	U\G	#4 SKIP SHAFT INSPECTION
2	1	156.0000	173.6000	67.0000	U/G	U/G GENERAL
		155.6100	172.5800	79.7000	U/G	#4 CAGE SHAFT INSPECTION
3		162.6000	162.6000	131.8000	SURFACE	RAILROAD SIMPLEX
4	4	156.3300	173.9300	88.5000	U/G	ELECTRICAL MTCE
		156.0600	173.9550	167.9000	U/G	EMERGENCY (#2 Aux Cage)
6	5	155.6700	172.6700	100.0000	U/G	MECHANICAL MTCE
7	3	168.2100	173.3400	156.7000	SURFACE	SURFACE GENERAL
		167.1450	172.7550	DPL-311	SURFACE	FIRE CREW
8		157.4200	173.3700	167.9000	U/G	MINE RESCUE
		155.8500	172.8500	71.9000	U/G	#2 SKIP SHAFT INSPECTION
		156.9300	173.0750	179.9000	U/G	#2 CAGE SHAFT INSPECTION
		173.8250	156.8500	162.2000	U/G	#2 MAIN CAGE LEVEL CTRL
		172.0250	157.5900	67.0000	U/G	#2 AUX CAGE LEVEL CTRL
	2	156.1850	173.4850	110.900	U/G	CONVERSATION
	6	156.6100	173.7250	123.0000	U/G	SUPERVISORY
		165.5100	168.2700	114.8000	SURFACE	RAILROAD Met site
			175.0000		U/G	Leaky Feeder Pilot Tone
			174.9260		U/G	MRS Diagnostic
			175.0740		U/G	MRS Diagnostic
			182.0000		U/G	MST Diagnostic
			157.7250	67.00	U/G	Pilot Down

ERP Equipment & Material

The following materials and equipment are available at the Kidd Mine.

EQUIPMENT (TYPE / KIND)	QTY	LOCATION / DETAIL
Mine Rescue Teams	Unlimited	Mine Rescue Room
Mine Rescue Truck	1	Surface –Compressor House
Ambulance	1	Surface - Ambulance Bay
Surface Water Truck	1	Varies – see Ore Flow Supervisor
Security Response Truck	1	Admin Building
AFFF Foam Concentrate	10	Mine Rescue Room
Generators	Multiple	Varies – see fixed plant maintenance
Dry Chemical Fire Extinguishers	Multiple	Mine rescue room, any mobile equipment, every 100 feet in every building
SCBA (Draeger, Firehawk, Air Boss)	10, 12/4/8, 5	Gas Detection Room, Fire Ready Room/Ammonia Plant/4700 Fresh Air Base, #2 Hoist/#4 Hoist/#2 Collar/#4 Collar (6 additional Firehawks available at Concentrator)
SCBA Cylinders	10/10	4700 Fresh Air Base/Gas Detection Room
Air Replenishment System	1	Ambulance Bay
Two-Way Radios	3	Mine Rescue Room
Gas Detectors	3/6/5	Gas Detection Room/Rob Smith's office/4700 Fresh Air Base
First Aid Kits	40	Every Refuge Station, Nurse's station
AEDs	9	Nurse's Station, Emergency Response Vehicle, #2 Shaft 4700, #2 Shaft Surface Waiting room, #4 Shaft 7500 Station, #4 Shaft Collar (4700), Paste Plant, Warehouse, 9600 Refuge
Emergency Spill Containers	20	Surface Quonset Hut