

**APPENDIX X
CONCEPTUAL EMERGENCY AND SPILL RESPONSE PLAN**





**CÔTÉ GOLD PROJECT
CONCEPTUAL EMERGENCY AND SPILL RESPONSE PLAN**

**Submitted to:
IAMGOLD Corporation
401 Bay Street, Suite 3200
Toronto, Ontario
M5H 2Y4**

**Submitted by:
AMEC Environment & Infrastructure,
a Division of AMEC Americas Limited
160 Traders Blvd., Suite 110
Mississauga, Ontario
L4Z 3K7**

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GLOSSARY AND ABBREVIATIONS

EA	Environmental Assessment
EMSRP	Environment Management and Spill Response Plan
EMTL	Emergency Management Team Leader
ERT	Emergency Response Team
ESM	Emergency Site Manager
HR	Human Resources
MRA	Mine Rock Area
MSDS	Material Safety Data Sheets
OPP	Ontario Provincial Police
P&L	Procurement and Logistics
RA	Responsible Authority
TMF	Tailings Management Facility

QUICK REFERENCE LIST

Title	Phone
Site Manager - Project	Office: 705-269-0010
District Manager - Exploration	Office: 705-269-0010
District Superintendent Health, Safety and Security	Office: 705-269-0010
Superintendent Health, Safety and Training	Office: 705-269-0010
Manager of Environment	Office: 705-269-0010
Environmental Coordinator	Office: 705-269-0010
Superintendent of Infrastructure and Logistics	Office: 705-269-0010
Infrastructure and Logistics Supervisor	Office: 705-269-0010
Infrastructure and Logistics Supervisor	Office: 705-269-0010
Head Electrician	Office: 705-269-0010
Côté Gold Security	Office: 705-269-0010

EXTERNAL PHONE NUMBERS

Contact	Phone Number	Details
Fire Protection	1-705-894-2030	Gogama
Ambulance	1-877-351-2345	Gogama
Nursing Station	1-705-267-2131	Gogama
Hospital	1-705-267-2131	Timmins district hospital
Poison Control	1-800-267-1373	—
Ontario Provincial Police (OPP)	1-888-310-1122 or 1-705-894-2345	Gogama detachment
Ministry of Natural Resources (MNR; Forest Fires Division)	310-FIRE (310-3473)	Chester 1 ref: zone 17, base map 43526, block 37. GPS: zone 17, NAD 83, UTM 432989E, 5267310N
Ministry of Labour (MOL)	1-705-564-5234 or 1-800-461-6325. Inspector S. Carter: 1-705-564-9251. Critical incidents (after hrs): 1-877-202-0008	MOL shall be contacted only by health and safety Personnel.
Ministry of Environment (MOE)	1-705-235-1500	MOE shall be contacted only by environmental Personnel.
Environment Canada	1-416-739-5887	Shall be contacted only by environmental Personnel.
Nasco Propane	1-877-672-6723	—
Martin Fuels	1-705-264-1183	—
Hydro One	1-800-434-1235	—
Marc Caron (Caron Equipment Inc.)	1-705-267-1280	On-call contractor for spill response

1.0 INTRODUCTION

This Conceptual Emergency Management and Spill Response Plan (EMSRRP) for the Côté Gold Project (the Project) is designed to facilitate a timely and effective response to an emergency anywhere on the Project site and provide a process for evacuating people from danger, protecting assets, property and the environment, and restoring operations to normal as quickly as possible. IAMGOLD's objective is to provide a safe and comfortable environment for the region, community, employees, contractors and visitors.

In the event of an emergency, the Emergency Response Team (ERT) will be prepared, through proper training and safety drills, to safely execute a partial or full evacuation of any given building on the Project site by following the guidelines and procedures set forth in this EMSRRP.. However, each emergency is unique and the recommended procedures may not be suitable for all conditions that arise. Therefore, common sense and best practice should always be the primary element of any emergency procedure. Should the emergency situation warrant additional management support, IAMGOLD's Crisis Management Plan will be followed. As a member of the Mining Association of Canada, IAMGOLD is committed to fulfilling the requirements of the Towards Sustainable Mining Program. One component of the program requires both head offices and facilities to develop crisis management plans, as well as establish crisis communications teams to support the execution of these plans. Facilities must be able to demonstrate, among other requirements, that they have crisis communications programs in place to effectively alert employees and the public of a crisis, its development and resolution. They must also be able to demonstrate that their crisis management plan is regularly tested and updated.

Upon completion of approval processes for the Project, a complete and detailed EMSRRP will be developed based on the framework presented in this conceptual EMSRRP, as well as the Towards Sustainable Mining - Crisis Management Planning Protocol, and any applicable regulations.

1.1 Purpose

The EMSRRP is enacted when an incident (i.e., accident, fire, spill, personal injury, etc.) occurs that is beyond the control of the personnel currently at the scene, or normal departmental resources and procedures are inadequate to bring the emergency to a successful recovery.

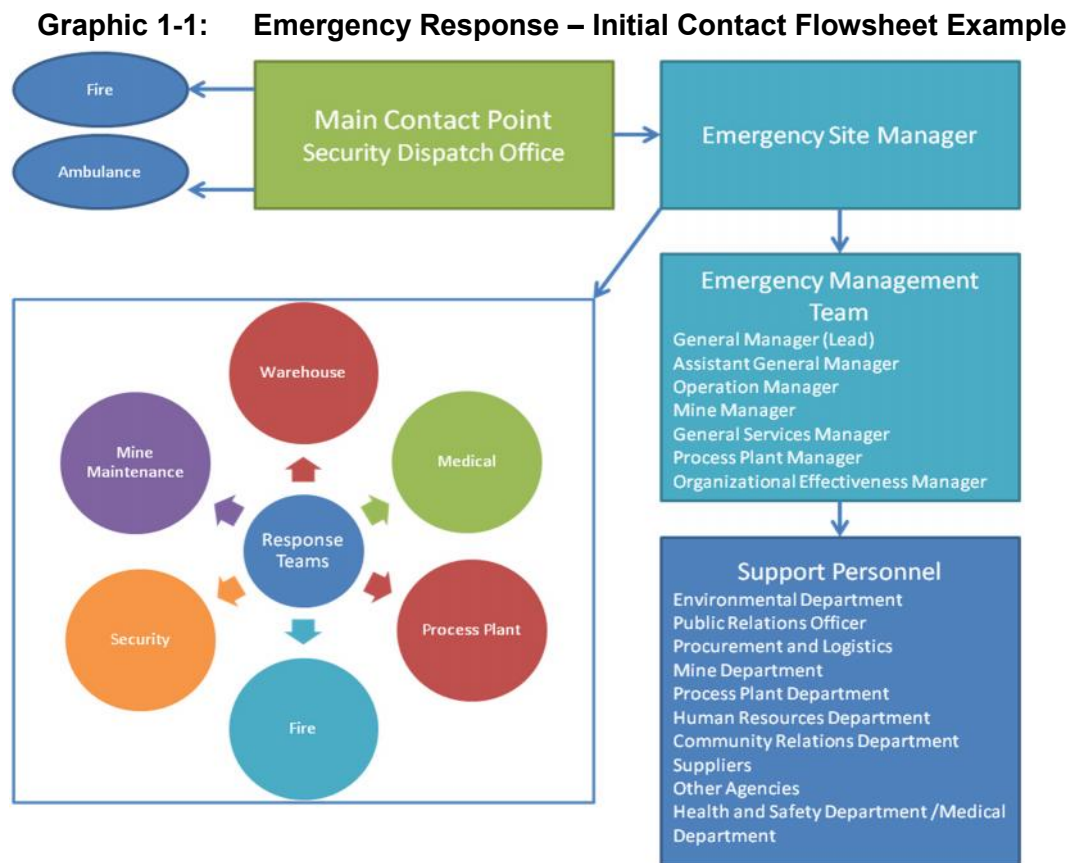
Normal departmental procedures should be followed during any incident until it is determined that the situation is beyond the control of the personnel on the scene, or the normal departmental procedures are inadequate or unavailable. At this point the EMSRRP should be invoked.

1.2 Scope

The emergency response procedures and the personnel and department responsibilities presented here, apply to any emergencies involving human and ecological health, health, safety, environmental and reputation that may develop at the Project site, or when travelling to/from the Project site to the nearest populated centre (such as Gogama, the City of Timmins or Sudbury).

Personnel shall call upon local emergency services and communicate such emergencies to general management through the security department.

The functions and responsibilities of the people and departments identified for the Project will be clearly defined ahead of commencing any Project activities, and would follow the example presented in Graphic 1-1 and described in the following sections.



This graphic is for demonstration purposes only.

To familiarize all employees with the contents of the fully developed EMSRP, it is essential that the plan be reviewed by supervisors together with their employees when:

- employees are new;
- employees are transferred to a new area;
- duties and responsibilities are newly assigned or changed/modified; and
- employees are assigned to a specific duty within this EMSRP.

In general, the EMSRP will endeavor to ensure:

- a safe working environment for all employees, contractors, visitors and neighbours;
- the existence of a comprehensive system for managing emergencies and a high degree of emergency preparedness;
- the identification and management of all significant environmental risks;
- that all activities are conducted in an environmentally responsible manner consistent with environmental regulations, guidelines and best practices;
- the containment of emergencies and their effects within facility boundaries;
- co-operation with external emergency response organizations; and
- a safe return to normal operations.

2.0 EMERGENCY RESPONSE KEY ROLES AND RESPONSIBILITIES

2.1 Emergency Site Manager

The **Emergency Site Manager (ESM)** is the person(s) in charge at the scene. The ESM is contacted and is dispatched immediately to the scene to assess the situation. The ESM is responsible to prioritize and coordinate the **Emergency Response Teams (ERT)** activities and provide on-scene leadership.

The ESMs require a general knowledge of the capabilities of each of the response teams. They must have a reasonable understanding of the potential emergency scenarios and the implications with regard to health and safety issues, fire potential, and environmental impacts. The primary ESMs are the Environmental Superintendent and Safety Leader or designates in their absence.

In extended response situations, other personnel (at the discretion of the General Manager) may replace the Emergency Site Manager. Examples may include Engineering or Mine Operations personnel for incidents involving dam/containment failures, ground instability issues, etc.

2.2 Security Dispatch Officer

The **Security Dispatch Officer** provides assistance to the ESM during an emergency and functions as the primary contact for all personnel. The Security Dispatch Officer receives incoming emergency calls and responds by calling the emergency response group/s into action.

The Security Dispatch maintains a list of personnel and their assigned responsibilities. This list includes those currently serving as: ESM, the contact for each response team, as well as contact numbers for Senior Management. In addition, a list of Department Heads and support personnel is maintained. Security dispatch is the primary contact and communication centre in an emergency.

2.3 Emergency Response Teams

The **Emergency Response Teams (ERTs)** are made up of personnel from various departments who have been trained to respond to accidents that may occur as a result of their work activity. Response teams become involved at the request of the ESM. Each team requires a contact person who will assemble their response team and equipment and report to the scene of the incident. A brief description of the response teams and their expertise is provided below:

- **Process Plant ERT:** The Process Plant ERT generally responds to process plant/mine site spills involving chemical reagents with the exceptions of fuel, oil and ammonium nitrate. Process plant personnel will also be trained to fight fires and would be called out if additional fire support was required.

- **Warehouse ERT:** The Warehouse ERT would respond to all large fuel or oil spills. In addition, warehouse and/or logistics personnel would respond to all emergencies involving their transport equipment on the transit route to the Project site. Contractors involved in transporting dangerous goods are also trained and equipped to respond to spill emergencies.
- **Medical ERT:** The Medical ERT will act as the senior first aid givers and will respond with the other ERTs to provide care to injured personnel. The Medical ERT will also provide advice to management regarding casualty care and assist in preparing injured personnel for transport to hospital if necessary.
- **Fire ERT:** The Fire ERT will respond to all fire-related emergencies and act according to direction from the ESM.
- **Security ERT:** The Security ERT will respond to all emergencies to isolate and control the area. During the emergency, public and non-essential workers would be secured at a safe distance away from the accident site. After the emergency, the Security ERT would remain at the scene to prevent disturbances that could compromise any investigation of the accident.
- **Mine Maintenance ERT:** The Mine Maintenance ERT will respond to incidents involving mobile equipment. They will provide technical support and supervision in regard to vehicle recovery, the recovery of bulk fuel and lubricants from tankers, etc.

The ERTs will draw on the expertise and resources of other departments as required. These groups and support expected from them are described in the next sections. Detailed duties and instructions for each role will be provided by IAMGOLD in dedicated duty cards.

2.4 Emergency Management Team

The General Manager will establish an Emergency Management Team to provide direction to the ESM and manage efforts to bring the emergency response to a prompt and successful conclusion.

The Emergency Management Team Leader (EMTL) is the senior management person on site at the time of the incident until relieved by a more senior management official. The EMTL will consult with the ESM early in a developing emergency and will call together the Emergency Management Team should it appear that the ERTs require additional support or should it appear that the emergency may have a significant impact on human health, the environment, surrounding communities, business reputation, or ongoing operations.

The EMTL will coordinate efforts from a pre-established control center and will be responsible for concluding the response as he/she sees fit. A duty card outlining a complete list of duties during an emergency will be provided by IAMGOLD to the EMTL. Note: The General Manager (or designate) must approve all communications with government, corporate personnel, workers, and the media.

The Emergency Management Team will consist of the following:

- Assistant General Manager;
- Operation Manager;
- Mine Manager;
- General Services Manager;
- Process Plant Manager; and/or
- designates in their absence.

The Emergency Management Team will take their direction from the EMTL (General Manager) and will provide support from their respective departments in addition to the general duties outlined in the duty cards provided by IAMGOLD.

The Emergency Management Team will access whatever support is deemed necessary. A general description of the groups considered, along with their likely contributions follows:

- **Environmental Department:** is responsible for input on environmental impact, sampling, and testing as well as recording, monitoring, and clean-up activities related to the emergency. Environment personnel will normally be called to and be present at the site of the environmental emergency and will work under the direction of the ESM or the EMTL.
- **Public Relations Department:** will assist management in communication with the public, government, media, and employees.
- **Procurement and Logistics (P&L):** manages all cargo manifests, Material Safety Data Sheets (MSDS) and information for all transported goods. They also manage cargo transport to site.
- **Mine Department:** personnel will provide heavy equipment support when required, as well as provide explosives expertise, engineering and maintenance.
- **Process Plant Department:** will provide maintenance personnel, electricians, and operations personnel, as well as metallurgical, assay and lab expertise.
- **Human Resources Department (HR):** responsible for all personnel records including emergency contact numbers, medical and insurance information. The HR Department would contact next of kin in the event of serious injury or death.
- **Community Relations Department:** will act as the lead in organizing notification of communities affected by an incident (may be merged with the Public Relations Department).
- **Suppliers:** will provide technical assistance with emergencies involving their products.
- **Other Agencies:** will provide support in terms of mutual aid agreements, and consultants may be called upon to provide technical assistance in their area of expertise.

- **Health and Safety Department / Medical Department:** will supply advice and assistance regarding worker safety. This department will also supply and assist in providing medical information, and communication with medical authorities and evacuation.

3.0 COMMUNICATIONS

Upon encountering an emergency situation, the initial contact for any employee is their current supervisor. In most emergency situations, internal departmental procedures should be followed prior to contacting Security Dispatch for outside assistance. There will be emergency phones that direct dial into the emergency number at the accommodations complex.

The intent of the response procedure is to provide an organizational structure that can be initiated at any time - 24 hours per day; 7 days per week. Once Security Dispatch is contacted, the emergency situation is addressed by a group of personnel specifically trained and equipped for the task.

If an accident occurs along the transit route to the Project site from one of the nearby communities, the initial contact in an emergency is the P&L department. Depending on the location and severity of the incident, P&L may elect to send the Project site response team immediately. P&L will contact Security Dispatch at the Project site. Security Dispatch will ensure that senior P&L personnel, an ESM, and other relevant management and supervisory personnel are immediately notified of the incident.

3.1 Contact Point

Security Dispatch personnel serve as the contact point in an emergency situation. Security Dispatch is to provide a single point of contact that is common to all personnel and all emergency situations. Some duties are listed below and more detailed duties will be described in the Security Dispatch Duty Card as part of the final EMSRP.

Security Dispatch keeps a copy of the EMSRP on hand. An electronic copy will be accessible by all personnel directly from the IAMGOLD intranet folder, and will be indicated during training.

3.2 Responsibilities

- Monitor Security Repeater (Radio) and phone numbers 24-hours per day, 7 days per week, and log all communication to ensure information from the scene is accurately recorded and passed on to the intended recipient. If for some reason there is no answer at security dispatch, the telephone will automatically transfer the call to the process plant control room.
- Ensure contradictory instructions are not given by the various personnel involved in the response.
- Arrange for Medical Evacuation Transportation as needed.
- Notify the Department Head(s) whose personnel are involved in the accident or emergency response.
- Notify the appropriate ERT as instructed by the ESM.
- Forward instructions from the Emergency Management Team.

All radio communication between the accident site, ERTs, General Manager and other personnel that may be involved in an emergency response will be conducted through the Security Dispatch.

3.3 Internal and External Communication

All communication with the public, government, media and Project personnel must be made through the General Manager (or designate).

The General Manager, via the Corporate and Legal Affairs Manager, maintains a current list of government officials to be contacted including the following:

- Ontario Provincial Police (OPP);
- Ministry of Transportation (MTO);
- Ministry of the Environment (MOE);
- Ministry of Natural Resources (MNR);
- Environment Canada;
- Hydro One; and
- any other applicable federal or provincial ministries or agencies.

3.4 Public Warning and Evacuation

In the event of an incident that could threaten the health or safety of nearby communities or individuals, warning or notice of evacuation may be necessary. The Community Relations department will maintain a contact list for communities surrounding the Project site. In addition, contact information for adjacent cottages, forestry and mining concession holders will be maintained. Community Relations, Public Relations, Human Resources and Security would coordinate public warnings and evacuation notices.

3.5 IAMGOLD Reporting

Emergency or incident reporting to IAMGOLD corporate officers is to be done at the discretion of the General Manager or his designate and in accordance with corporate crisis management and significant incident reporting procedures.

4.0 EMERGENCIES

Emergencies are undesired, unexpected events that generate risks and real or potential danger to Project operations (on and off site) and the environment.

Emergencies can directly affect employees and/or members of the general public, the environment, property, operations and processes and/or the Project's and/or IAMGOLD's reputation. Emergencies that may not be directly caused by the Project or its activities can still adversely affect the Project's and/or IAMGOLD's reputation through impacted public, government or media perceptions.

Through experience with other Projects, internal risk assessments and comments received from stakeholders or Aboriginal groups, emergency scenarios through potential accidents and malfunctions that could occur at the Project have been identified as part of the Accidents and Malfunctions Chapter of the Environmental Assessment (EA) Report. Accidents and malfunctions can include structural and operation failures, and/or accidents caused by human error, although these are not expected to occur.

Scenarios and procedures relating exclusively to occupational health and safety (e.g., personal injuries, medical emergencies, fatalities, etc.) and/or security (e.g., missing persons, bomb threats, labour/civil disturbances, etc.) are not discussed in this conceptual EMSRP and are covered elsewhere by IAMGOLD as part of their Zero Harm Policy.

The emergency scenarios considered in this conceptual EMSRP may be encountered at a single, or a variety of locations around the Project site and along public roads, including the following:

- ore processing plant;
- open pit;
- haul road operations;
- access road operations;
- highway access to the Project site;
- fuel, chemical and explosives storage sites; and
- remote work sites (e.g., along the transmission line alignment).

4.1 Level of Urgency

Some emergencies may require more attention than others. Though all emergencies will be treated as urgent and responded to as soon as they occur, they can be generally ranked as follows:

- **low urgency:** on or off-site emergencies that can be controlled by area personnel (require no specially trained personnel);
- **medium urgency:** on or off-site emergencies that require an ERT and generally cannot be handled by area personnel alone or at all.
- **high urgency:** on or off-site emergencies that exceed the capacity of area personnel, ERTs and/or resources available at the scene, and requires outside help from corporate, specialized services or government agencies.

These levels will assist in establishing the appropriate response measures to employ as well as for incident reporting.

4.2 Evacuations

Evacuations from the Project site or from specific areas or components may be required for various reasons under emergency scenarios, including natural hazards, fire and open pit slope collapse.

4.2.1 Personnel Responsibilities

Personnel will be expected to know, through preliminary induction and training, the location of all emergency exits in their work area, along with other safety basics in an emergency evacuation, which include:

- obeying all alarms and instructions;
- immediately stopping work and leaving, in an orderly manner to a designated Assembly Point and being mindful of possible traffic and other dangers. Under no circumstance will employees attempt to go to more distant areas or other Assembly Points by circulating through a building / area that is being evacuated;
- smoke-filled environments should be avoided. If the only exit route is full of smoke, personnel should escape through a window if possible;
- the most senior manager or employee in an emergency area must assume the role of Incident Commander and must record the presence/absence of personnel in an appropriate log. Absent personnel that work in other areas should be identified, including their current location, and notification must be given to the Area Supervisor/ESM and Security about the evacuation status;
- if personnel is working outside of their customary work area, they should report to the Area Supervisor where they are and the name of their regular supervisor;

- personnel that work in complex areas, such as the ore processing plant, must carry out established emergency shutdown procedures, if applicable. Good judgment to determine whether there is enough time to disconnect equipment, without endangering personnel, must be considered. Personal safety comes first if in doubt;
- the last person to leave an area should check that all work areas have been evacuated, provided it is safe to do so;
- after reaching a designated Assembly Point, personnel must stay there until provided with further instructions. Personnel must establish contact with their Area Supervisor or Incident Commander as soon as possible;
- known lost/missing personnel should be immediately reported;
- work groups whose supervisor is not present at the Assembly Point must report to the most senior employee available; and
- evacuated areas should not be entered to look for or offer aid, unless the Incident Commander specifically requests it.

4.3 Stability Failures (Dam/Slope Collapse)

In the event of a catastrophic failure of the Tailings Management Facility (TMF) dam, retention dams or other containment dams or structures, including slope failures (Mine Rock Area (MRA), open pit), tailings, waste materials or water could be released to the environment or areas of the Project site.

To ensure preparedness for, and response to a catastrophic failure (e.g., due to a seismic event or overtopping), IAMGOLD will:

- ensure that, as a minimum, it designs, constructs, operates, monitors and maintains its TMF, MRA and all other slopes and dams in line with industry best practice and manages its cyanide solutions as detailed in the Environmental Assessment and engineering studies.;
- in the event of a catastrophic failure, particularly of the TMF dam, IAMGOLD will:
 - notify the public that there has been a major spill and they are advised not to enter or use affected areas (e.g., agricultural land, forest) until further notice;
 - notify regulatory authorities;
 - cease pumping of tailings to the TMF (ore processing plant shutdown);
 - use earth-moving equipment to construct temporary berms across drainage channels to capture tailings or waste materials to the degree possible;
 - to the extent practical, use on-site earth-moving equipment and local materials to reduce/eliminate further loss/spread of tailings or waste materials;
 - use excavators and trucks to pick up spilled tailings or waste materials and return them to the TMF or MRA as appropriate;

- monitor water quality within and downstream of the affected areas (particularly at potable and irrigation water intakes) until concentrations are reduced to levels determined by regulatory authorities to be protective of public health and the environment;
- if required, undertake treatment of tailings-impacted water;
- once the emergency has been resolved, notify, in conjunction with the regulatory authorities downstream users of the affected areas;
- implement remediation of tailing-impacted areas; and
- investigate basic causes of the failure, and develop and implement measures to minimize the possibility of recurrence.

Spilled tailings and waste materials will be managed as indicated below. Personnel in the vicinity of such incidents will follow a similar procedure for evacuations, moving to a designated Assembly Point and reporting to the Incident Commander and/or the Area Supervisor/ESM and Security.

4.3.1 Tailings Spill Control System

4.3.1.1 Tailings and Reclaim Pipelines

Pipelines carry the tailings slurry from the ore processing plant to the TMF, and reclaim water from the TMF pond to the ore processing plant and effluent treatment plant, if applicable. As this water contains substances from blasting and processing, the pipelines will be laid in such a way that any leakage would be directed either to the TMF, or to other facilities designed to accommodate and contain contaminated water. Additionally, the tailings pipeline will be equipped with flow sensors that compare the flow into the pipeline with the flow at the tailings basin. In the event of a difference, alarms will be activated. Additionally, containment ponds will prevent substances from entering the environment. Pipeline barrier berms will protect the pipelines from potential damage caused by heavy equipment.

The containment ponds have been sized to accommodate the rainfall associated with a major storm, the tailings already in the pipeline, plus tailings pumping for 3 minutes (it is understood that in the event of uncontrolled leakage from the pipeline, the flow would be stopped within 3 minutes).

Failure of the pipelines may be identified by individuals observing the line. Anyone observing a leak in a pipeline must immediately call Security Dispatch who will call the Process Plant Control Room and advise them of the situation. The Process Plant Control Room Operator would then contact the Process Plant Operations Supervisor on duty who would then take action.

It is to be noted that security personnel will conduct a visual inspection of the tailings and reclaim lines at least two times per twenty-four (24) hour period, with security management reviewing each inspection report.

In the event of tailings spilling onto the road and into the containment ponds, the flow must be stopped immediately. The tailings must then be cleaned up with earthmoving equipment and hauled to the tailings dam. Tailings spilling from a pipeline onto the road and overtopping the containment berms would constitute an emergency.

4.3.2 Tailings Spill at the Ore Processing Plant

The ore processing plant is constructed over a concrete containment pad designed to catch spills and overflows that result during normal operations. Material that is lost to the containment pad is washed to sump points and is pumped back into the milling process.

Should spilled tailings migrate beyond the containment pad, the spill would flow to a catchment pond. This catchment pond will be designed to receive discharge from the process plant as a result of process upsets, etc. Discharge from the catchment pond would be directed back into one of the process plant circuits, such as the thickener system – in effect this will be a “closed loop” system.

The mine water pond will also capture spills and leaks from the ore processing plant and maintenance yard areas. Under normal conditions, the mine water pond contains site runoff, mine water and reclaimed water that is circulated into the process plant flow circuits.

4.4 Spills – Fuel, Hazardous Materials and/or Chemicals

The Spill Response Procedure will be developed in further detail as part of the EMSRP, in line with the Ontario’s Ministry of Environment (MOE) Spill Reporting – A Guide to Reporting Spills and Discharges Procedure as required by the Ontario *Environmental Protection Act* (s. 92 and s. 15) and Ontario Regulation 675/98; Classification and Exemption of Spills and Reporting of Discharges, as well as industry best practices and international guidelines.

In the case of any spills, on site or off site, employees are not to make comments to the media. The general conceptual protocol to follow in the event of a spill is outlined below.

The Internal Notification Call List (see Table 4-1) details the Responsible Authorities (RA) to be called in order of appearance in the event of site personnel becoming aware of a potential spill incident.

Table 4-1: Internal Notification Call List for Spill Incidents

Name	Contact Numbers
Manager of the Environment	Office: 705-269-0010
Environmental Coordinator	Office: 705-269-0010

Name	Contact Numbers
Environmental Technician	Office: 705-269-0010
Infrastructure & Logistics	Office: 705-269-0010
Health and Safety	Office: 705-269-0010

The Project’s Environmental Department has developed an internal Reporting and Investigation Procedure for any size or quantity of spill, which is to be initiated by the individual first becoming aware of a spill or incident that may or may not be classed as a spill according to MOE guidelines.

In conjunction with the duties of the RA, the following reporting steps will be initiated when becoming aware of a potential “spill”:

- note the time and date of the incident, and identify and/or estimate the volume of released material if possible in an attempt to characterize the event occurring;
- contact EMTL and provide initial information on status of the incident;
- contact the Security Officer to employ the “Internal Notification Call List” (see Table 4-1); and
- provide a description with sufficient detail when notifying Security of an incident. Include a detailed description of the type of occurrence, location, and include any other relevant details. Security will then ensure that the responsible person from the Internal Notification Call List acknowledges the call.

Once notified of the event occurring, the RA will provide direction as to the best course of action to carry out clean-up efforts and complete the Spill Reporting Information Form (see Appendix I). The form will be used by the RA to ascertain whether or not a spill is a reportable spill incident under the *Environmental Protection Act* as per MOE criterion. The RA will also take control of the decision making process and track the progress of the clean-up efforts using the same form. It will also be used to record and track mitigation measures employed to clean-up the spill.

Immediate actions:

- ensure personal safety – control life threatening emergencies that are within the employee’s capabilities if such an emergency is apparent;
- have operations personnel shut down any processes that may be contributing to additional spill volumes;

- determine the status of all personnel – initiate Emergency Response Procedure to provide appropriate medical response and eliminate life-threatening situations. Organize and initiate site evacuations if necessary;
- for material that has escaped, an attempt should be made to reduce its potential impact (e.g., if released material is destined for a water body, it may be contained or redirected by building a small berm);
- all site personnel remain on alert until notified otherwise by the ESM, including members of the Environmental Management Team;
- stop the leak, secure and contain the spill, if possible, in accordance with guidelines;
- assess risk to personnel and environment, as well as operations – inform the active EMTL;
- begin efforts to clean up the spill site and dispose of materials according to instruction from the environment department; and
- commence planning to support and ensure necessary continuation of the response, i.e., provide: chemical or petroleum spill kit, treatment agents, necessary utilities (e.g., power, eater, etc.), protective equipment, human resources, fire-fighting or first aid equipment, maps or diagrams, heavy equipment or machinery, materials to begin clean-up, external resources or services.

The RA will promptly notify the ESM of the incident and provide regular updates while clean-up operations are in progress. The RA may at that time assign an on-site designate to oversee clean-up measures as detailed by the RA. The RA will consider whatever information is available on the partially completed internal Spill Reporting Information Form gathered from site personnel and compare it against with the MOE guidance document to ascertain the classification of the spill and review reporting requirements, with regard to specific exemptions and under the *Environmental Protection Act*. The RA will consult additional details as to who must report, who must be notified, when to report and how to report.

4.4.1 Fuel or Oil

Small amounts of fuel and oil can be absorbed using spaghetti booms and skimmer mats. Booms can be placed around the pump barge, as well as at the inlets to the pond. Water can generally still be drawn from the pond for process plant circuits as the pump draws water from below the floating fuel and oil.

4.4.2 Reagent Spills

Response to a reagent spill on site will vary depending on the contaminant. Response measures include do nothing, treating in-situ (i.e., small liquid or solid spills) or pumping the water to the process plant circuit, as appropriate.

4.4.3 Cyanide Spills

The response scenarios to cyanide spills will be fully described in the detailed EMSRP. General guidelines are provided below. It is currently anticipated that cyanide will only be handled and stored in liquid form at the Project site.

- In the event that the process plant catchment pond is contaminated with cyanide, mine water pond water may continue to be drawn for use in process plant circuits;
- hydrogen peroxide could be added directly to the catchment pond. Depending on climatic conditions and levels of cyanide, the cyanide could be allowed to naturally degrade. In addition, the process plant will maintain a substantial inventory of bulk hydrogen peroxide for emergency use; and
- inflow volumes to the process plant catchment pond will be monitored and if it approaches maximum capacity, it may be diverted directly to the TMF.

4.4.4 General Spills - Waste Management

In general, after controlling the respective emergency, wastes will be managed as follows:

- waste must be controlled and disposed of as soon as possible to avoid other emergencies or environmental impacts (due to rain or wind action);
- non-hazardous waste must be disposed of in the waste bins on-site or transported to the Project landfill (if volumes are significant); and
- hazardous waste must be taken to a licensed waste disposal facility for its proper off-site disposal.

Once the area of concern has been remediated the RA will monitor the area for effectiveness of the clean-up measures and ensure that the site has been rehabilitated to pre-spill conditions. If the release of materials has the potential to cause long-term adverse effects to the environment the Environmental Coordinator or designate shall implement a monitoring program or inspection process suitable to track and monitor for affect. This may take the form of an interim surface water, groundwater or soil monitoring program to ensure the area of concern has been adequately remediated and long-term stability of the area has been achieved.

4.5 Unscheduled or Accidental Explosions

Unscheduled or accidental explosions would only be expected to occur at the Project site (open pit, emulsion plant and explosives warehouse, watercourse realignments) during the construction phase, and at the open pit or emulsion plant and explosives warehouse during the operations phase.

In this case, the Area Supervisor will notify the ESM who will inform and dispatch the necessary ERTs. The following steps would be expected to be followed:

- cease all operations in the area;
- nearby personnel should make their way to a designated Assembly Point and remain there until authorized to leave the area;
- should anyone be injured, steps as per IAMGOLD injury and medical emergency procedures should be followed; and
- secondary explosions, structural collapses or other potential hazards should be considered before entering the area to assist injured persons.

4.6 Fire

Fires at the Project site can result from various accidents or malfunctions or through forest fires in the vicinity of the Project site. The Senior Manager on site will take direct charge of rescue and firefighting operations. All orders given at such a time of emergency will be issued through the RA. It is also left to the discretion of the RA to modify the various operations if necessary.

It is the responsibility of all Department Heads under the Environmental Management Team to ensure that all their personnel are acquainted with, and kept fully informed regarding those parts of the procedures that affect them, and that they understand their proper course of action in the event of a fire warning. Supervisors must read and explain the fire procedures to their personnel at least once every six (6) months, and they ensure themselves that all new person(s) on their shift understand what to do in case of fire. All personnel must be informed without delay of any change in the fire procedure. A report of these talks must be made to the Safety Department. Supervisors are responsible to ensure the areas under their supervision are inspected monthly for fire hazards and that firefighting equipment is in good condition. A report of these inspections must be filed with the safety department. All contractors, vendors and suppliers on the property must comply with this procedure.

4.6.1 Aids to Fire Prevention and Control

All employees working in any area must be familiar with the following:

- how to avoid panic and confusion;
- know the location of fire extinguishers and learn the proper way to use this equipment;
- know the location of exits - the safest way out of any location;
- ensure that exits are not blocked - know an alternate exit in case one is blocked;
- how to walk calmly to the nearest exit and maintain order;
- know where the assembly areas are when evacuating a building;
- that they must take each alarm seriously;

- to never re-enter the building until the all clear is given; and
- have a regular fire drill every year with all employees to test their knowledge of what to do in case of fire.

It is possible that evacuations may be required due to a fire emergency, and procedures would be similar to those detailed for general evacuations in Section 4.2.

4.6.2 Elements of Fire Safety

All employees should ensure that:

- exit doors and routes to them are indicated by illuminated exit signs;
- there is emergency lighting for means of egress, including exit stairs;
- there are no obstructions in corridors, exit doorways, exit stairs and other routes that constitute means of egress for occupants. Obstructions include furniture or storage in exit ways;
- exit doors are not locked or secured in any way that would prevent ready use of the doors;
- the fire alarm is used for its intended purpose;
- in the event of forest fires, any personnel or contractors who witness smoke or flame in the forest must immediately contact the Security Dispatch Officer;
- persons in your area are informed of the place of assembly when the alarm sounds;
- doors to exit stairs are not blocked, open and close automatically and latch after use and remain properly closed;
- new employees are made aware of office fire procedures through orientation training;
- persons are informed that if they leave by alternate exit routes they should go to the designated area of assembly to be accounted for; and
- the fire alarm is reset after each initiation.

4.6.3 Designated Assembly Areas

All personnel, including contractors, will assemble at the posted Assembly Points. Ensure your supervisor is aware of your presence.

4.7 Vehicular Accidents (Light and Heavy Equipment)

Heavy equipment and vehicles will be transporting heavy loads of waste materials and/or hazardous materials. Vehicular accidents, aside from endangering people, can lead to environmental effects due to spills from loads and/or fuel. Procedures for medical injuries or fatalities are addressed elsewhere as part of IAMGOLD's Zero Harm Policy.

In the event of a vehicular accident, whether on or off site:

- determine if there are any hazards before approaching the incident, or wait until the hazard can be safely mitigated;
- notify Security of the incident and request they contact the Area Supervisor, ESM and H&S Coordinator, and Security Dispatch and any necessary ERTs – provide them with information on the incident;
- if necessary and if qualified to do so, area personnel or witnesses should provide first aid care;
- do not move the victims except to prevent further injury – instead assess the state of the injured personnel;
- ensure the safety of all personnel at the scene, until a supervisor or the designated personnel arrives to take control of the situation;
- notify the supervisor of the designated personnel of anyone in need of rescue;
- unless absolutely necessary, do not move the vehicle until preliminary facts of the investigation have been established;
- if there is a possibility of a spill (oil / fuel / chemicals), report it immediately to the Manager of the Environment;
- notify regulatory authorities and OPP;
- ensure the area is secure; and
- record all events communicated regarding the emergency situation.

4.8 Wildlife Incidents

A variety of wildlife species occur in the area in which the Project is located, and some are potentially dangerous, including bears and moose. Unexpected wildlife encounters could result in accidents, including vehicular accidents.

Several measures will be implemented to track and repel nuisance animals, including reporting of sightings and prohibiting interference or interactions between Project personnel and wildlife.

Wildlife reports should identify the animal(s) and include:

- location, including nearest personnel, property or process to the sighted animal(s);
- trajectory:
 - wildlife walking away from personnel, property or processes (positive);
 - wildlife walking towards personnel, property or processes (negative); and
- behavior of the animal(s).

Prior to construction, a detailed system for alerting personnel around the Project site is expected to be available to all personnel. Alarm methods and other communication, such as radio communication and use of air horns, of imminent threats or incidents involving wildlife will be established:

- personnel encountering wildlife should raise an alarm as per the alerting system to be developed, or the equivalent. It is every employee's responsibility to ensure a clear alert is issued if danger is imminent to themselves or their co-workers;
- following the alarm a general wildlife report will be broadcast (likely via radio), indicated above;
- workers on the ground near the encounter are to monitor the animal's trajectory non-invasively;
- follow-up notifications are to be issued if the sighting changes;
- the ESM or Area Supervisor of the affected area may give instructions to stop work and proceed to safety at a nearby Assembly Point, or prepare for field evacuation;
- the first actions are avoidance and distancing measures by moving personnel, property or process away from the animal and/or its predicated trajectory;
 - avoidance may be achieved by planning work to avoid known wildlife inhabitanancies, populations and areas when possible.
 - distancing may be achieved by separating or actively evacuating personnel, processes or property from wildlife to reduce the risk of incident or injury to personnel or the animal(s). Further, to leave an animal that is displaying "normal behaviour" sufficient space to not habituate the animal to human presence, or processes or property by unnecessarily initiating discouraging or deterrent measures. This includes vehicle movement in proximity to bears or wildlife by maintaining proper distance that does not affect the animals.
- if avoidance or distancing measure cannot be taken then preparation for deterrence measures must be taken. In this situation, the Ministry of Natural Resources must be contacted and personnel and trained wildlife responders will follow their directions;
- once a situation has been downgraded or resolved, management personnel will issue a radio communication to allow workers in the affected area to resume unrestricted activity; and
- the appropriate wildlife sighting/incident documentation must be completed and forwarded to the Manager of the Environment.

Following a wildlife emergency incident, an investigation and report would be submitted to the Manager of the Environment. Proper recordkeeping is critical to effectively managing wildlife issues before they arise. The Manager of the Environment will maintain a record of all sightings, alerts and actions taken for regulatory reporting purposes.

4.9 Severe Weather Conditions and Natural Hazards

Severe weather at or in the vicinity of the Project site can include extreme precipitation events such as heavy snow or rainfall and high winds (tornados), or extreme temperatures (extreme cold). Natural hazards can include seismic events (earthquakes), which could lead to stability failures (see Section 4.3).

Storm events can endanger personnel at the Project site, due to whiteouts, low visibility conditions and extreme cold. Such incidents are addressed elsewhere as per IAMGOLD's Zero Harm Policy.

Severe weather can lead to blocked or washed out roads or power outages, which could impede emergency evacuations and response to other emergencies. During severe weather outages, all work must cease, preserving only low-risk essential site services during these events.

The first consideration will be the ability to respond to an emergency should one arise during the road closure. The second consideration would be accommodating the workers on site.

It is the responsibility of all Department Heads to ensure that all their personnel are acquainted with, and kept fully informed regarding those parts of the procedures that affect them and understand their proper course of action in the event of injury. Copies of this procedure or suitable excerpts shall be kept posted in the Security Office, Cookery and Supervisors Office Area.

The following procedures should be followed by all personnel if emergency services are hampered by severe weather:

- if notified that road access to the Project has been curtailed due to a winter storm, the person receiving such notice will advise the Senior Manager on site of the situation;
- the Senior Manager on site will confirm the road closure and attempt to determine the extent of the closure, and contact the OPP;
- if road closures are anticipated to extend through a shift change, workers at the site must be notified, and the RAs must determine if the oncoming shift should be cancelled; and
- if no emergency medical service is readily available:
 - move all personnel to the camp, including contractors;
 - close all accesses to the Project site;
 - security will be located at camp to deal with any emergency that may arise; and
 - have a Côte Gold emergency response vehicle at camp.

5.0 REVIEWS AND ANALYSIS OF INCIDENTS

Incident records should include reports on incidents, injuries, spills, exposures and fatalities, should they occur. After any incident, analysis and assessment of the incident and documented actions will be carried out in order to restore capabilities and operations and improve response measures where feasible. Things to consider before returning to normal operations under any incident:

- has all equipment been tested and confirmed safe;
- have all emergency services and government agencies acknowledged that normal operations can resume;
- has head office been informed and acknowledged that normal operations can resume;
- could employees be suffering from the effects of the incident; and
- are there any unauthorized personnel remaining on site.

As part of the detailed EMSRP, incident investigation and reporting procedures will be clearly defined for potential emergency scenarios, along with clearly defined responsibilities and roles. Incidents will be reviewed and will provide information to identify any potential gaps in emergency response measures and identify lessons learned.

Participants and roles under emergency response procedures will also be reviewed after an incident, to determine potential personnel assignments as well as to identify if equipment needs to be replaced or included and the cost of recovery and implementation.

Some incidents may result in minimal amounts of stress to personnel when responding to disasters, while others will find it extremely stressful. In the event of a major disaster, it will be necessary to arrange a debriefing of all involved personnel. The debriefing will allow for open discussion of the feelings, frustrations and anxieties experienced by response personnel.

6.0 TRAINING

As part of all aspects of the EMSRP, emergency response procedures will only be effective if personnel are trained to provide first response or other more specific response support.

IAMGOLD personnel is responsible for the initial, technical and specialized response in any event, as well as for the review and analysis process after an incident, including reporting. A training program will be developed and will be primarily focused on the Project, its equipment and personnel capabilities. The training program will include procedures to conduct regular drills.

6.1 Emergency Response Team Training

Training is provided to Emergency Response Teams on a regular-ongoing basis. The training objectives and activities are aligned with widely accepted standards for training emergency response personnel. This training includes exercises and classroom sessions designed to build competence in team safety and responding to:

- incidents involving spills or uncontrolled releases of hazardous materials;
- fires involving structures, vehicles, and hazardous materials;
- industrial accidents involving injured and/or trapped personnel;
- situations requiring evacuation and/or rescue;
- transportation accidents;
- natural disasters; and
- other types of incidents as determined by management.

Training is provided by persons having knowledge in the subject areas and includes opportunities for team members to practice their skills in controlled situations.

6.2 Emergency Management Team Training

In addition to the training provided to the ERT members, key management personnel have been and will continue to be trained to carry out their duties in accordance with this plan. Opportunities to practice the skills necessary to effectively manage an emergency scenario will be provided.

6.3 Drills

A mock emergency scenario will be created each year to test the effectiveness of the EMSRP and emergency response organizations. The exercise will be reviewed and the plan will be updated to reflect the learning gained. In addition, table top exercises may be done to provide opportunities to develop the skills of the emergency management organization.

The ERTs will continue to develop more specific tactical response guidelines as part of their ongoing activities and will practice responding as part of their ongoing training.

After responding to any emergency, the emergency response and management teams are to capture any lessons learned and use the information to update plans and response guidelines. Overall, the plan will be managed by the Health and Safety Department to ensure that the information contained remains current.

It is imperative that this Plan be reviewed by appropriate personnel, immediately following a major and significant incident and on an annual basis.

6.4 Training Responsibilities of External Personnel and Services

Contractors are to provide any additional contingency and emergency response planning they feel necessary as part of their work activities, in addition to reviewing the Project's EMRSP and adherence to it. Contractors will be responsible for any specific training required for their activities not provided by the Project, and training will be reviewed and approved by IAMGOLD.

Carriers and suppliers to the Project are to provide their own emergency response plans and training for their personnel, as they will be transporting supplies in their own vehicles with their own drivers. These plans are to be reviewed and approved by IAMGOLD, and are expected to consider drivers who are or will be trained to provide emergency response with respect to hazardous materials. Suppliers will be expected to be knowledgeable of the Project EMSRP.

Local services such as police, fire departments and emergency services responding to incidents such as vehicular emergencies or incidents involving hazardous materials will be expected to have training on these matters from their respective industries and departments.

APPENDIX I
CÔTÉ GOLD PROJECT SPILL REPORTING INFORMATION FORM

The template form is based on the reporting information required by the IAMGOLD-CÔTÉ GOLD PROJECT
Please complete this form and retain on file.

Person reporting spill:	Telephone number:
Date of reporting:	Time of reporting:
Person causing spill (if known):	Telephone number:
Date of spill:	Time of spill:
Spill location:	
Material type:	
Material quantity:	
Weather conditions:	
Parties contacted: <input type="checkbox"/> Manager of the Environment <input type="checkbox"/> Environmental Coordinator <input type="checkbox"/> Mgr. Environmental Assessments & Approval <input type="checkbox"/> Ministry of the Environment <input type="checkbox"/> Others:	NOTE: ensure contact numbers are correct and updated! .
Cause(s) and effect(s) of spill:	
Spill containment and clean up procedures initiated:	
Description of spill location and surroundings:	
Distance to nearest public facility, residence, First Nations community:	
Distance to nearest stream, water bodies, sensitive areas:	
Other comments/actions taken:	
Agencies on the scene:	
Report completed by:	Telephone number:
Title:	Date: