

Emergency Preparedness and Spill Contingency Plan

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Forms

Form 1.0	First Responder Emergency Reporting Log
Form 2.0	Emergency Release Incident Report
Form 3.0	Agency Notification Documentation Report

Emergency Preparedness and Spill Contingency Plan Approval

The Emergency Preparedness and Spill Contingency Plan is approved by the operator, after the prior control of the document by the Alba Water Management System. One copy of this document, signed and marked by the operator, will be given to the Alba Water Management System.

Both M.A.I. and M.M.G.A. Order number 638/420/2005 for approving the Regulations regarding the management of emergency situations produced by floods, dangerous weather events, dam breaking accidents and accidental pollutions, requires the development of an Emergency Preparedness and Spill Contingency Plan for all potential polluting operators, which also includes RMGC.

The Emergency Preparedness and Spill Contingency Plan (EMPSC) is developed by all potential polluting facilities, following the framework existing in Order number 278/1997 of M.A.P.P.M. The requirements of the plan will also be included in Alba County Emergency Preparedness and Spill Contingency Plan and in the Aries and Mureş Basin Emergency Preparedness and Spill Contingency Plan.

RMGC Emergency Preparedness and Spill Contingency Plan will be approved by the Technical Support Group of the Alba County Comity for Emergency Situations and by the Alba County Comity for Emergency Situations.

Emergency Preparedness and Spill Contingency Plan is part of the documentation developed to obtain the Water Management Permit. This document is given at the beginning of an operation and it regulates, from the technical and legal point of view, the functioning of a new operation built on water or which is connected with water (according to M.A.P.M. Order number 1141/2002 regarding the Procedure and the licensing competent authorities for issuing water management permits and licenses).

The EMPSC will be given for approval to Alba Water Management System and to Tg. Mureş Mureş Water Department.

Document Control Considerations

Distribution of the current approved version of the *Emergency Preparedness and Spill Contingency Plan* shall be controlled in accordance with MP-05, "Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents." It is recognised that this document contains sensitive information that could, in the wrong hands, potentially be used to create many of the same emergency scenarios that the Plan is designed to prevent or mitigate, given the current operational conditions of the Roşia Montană Project. A brief summary of MP-05 requirements as they pertain to *Emergency Preparedness and Spill Contingency Plan* is therefore provided as follows.

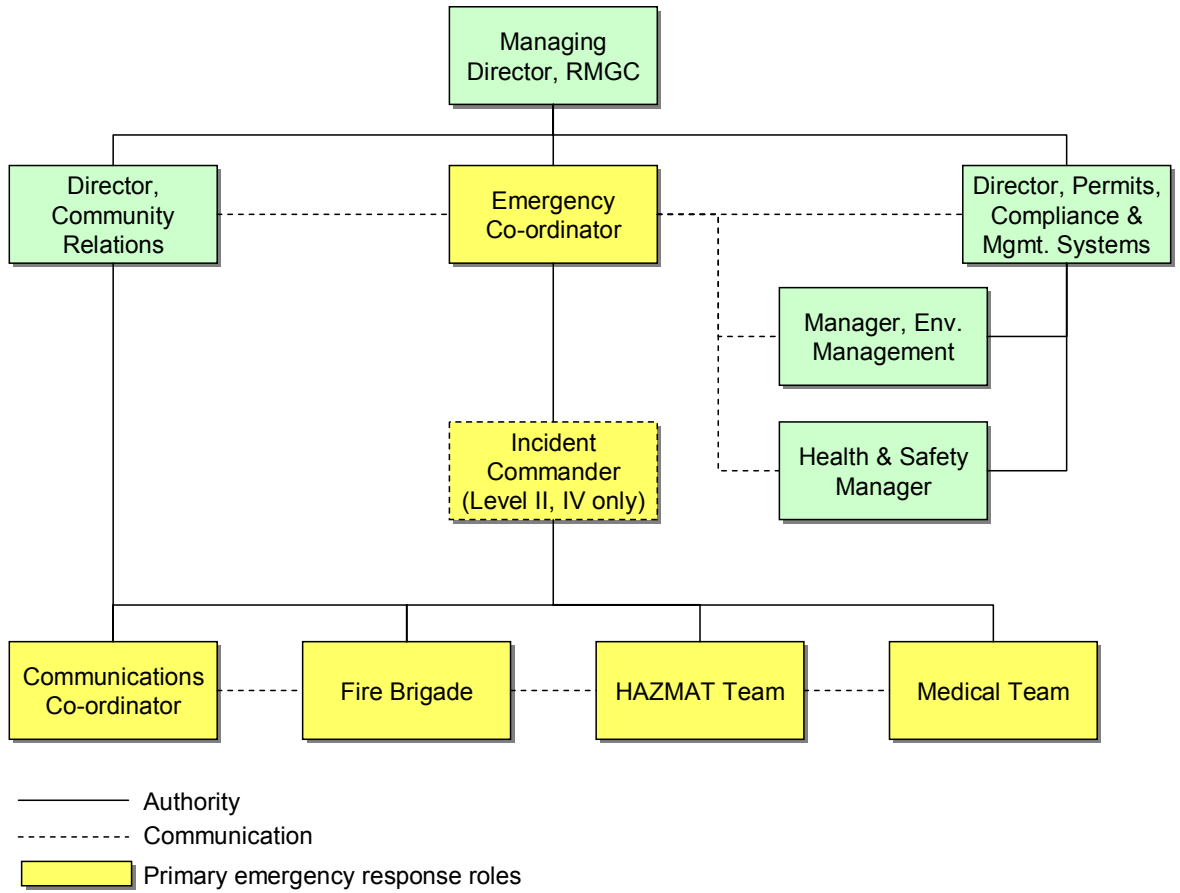
- Electronic access to the current approved version of this plan shall be limited to RMGC or contractor staff that has a need to know, based on their work assignments, emergency response team duties, managerial functions, or other appropriate considerations.
- Distribution of printed copies of the *Emergency Preparedness and Spill Contingency Plan* to external stakeholders shall be at the direction of RMGC Management, and shall similarly be limited to local authorities and response organisations with a legitimate need to know, or for whom distribution is required as a regulatory condition. A list of approved external distributees shall be maintained in the current version of the *Plan*.
- Draft or superseded printed copies of the *Emergency Preparedness and Spill Contingency Plan* shall be physically retrieved by RMGC and destroyed (except for copies retained for legal or regulatory purposes in the Project's records management system; see MP-12, "Management of Environmental and Social Management system Records").
- Proof of distribution (e.g. transmittal letters) of original copies, additional copies, and revisions to external stakeholders, shall likewise be maintained in the Project records management system.
- Unauthorised copying or distribution of the *Emergency Preparedness and Spill Contingency Plan* is prohibited.

Procedure MP-05 shall be reviewed at least annually to ensure that it remains effective in controlling the distribution of the *Emergency Preparedness and Spill Contingency Plan* and other critical Project documents.

UPDATES AND REVIEW TABLE

No	Issue no.	Update/ review date	Chapter, page updated/ reviewed	The person who made the changes	The description of the modification

RMGC Emergency Response Organization



External Emergency Response Organizations and Contact Phone Numbers

Organization	Address	Phone	Special Capabilities ¹
Alba County Inspectorate for Emergency Situations	Strada Transilvaniei nr. 14 Bloc 11, scara 1 Alba Iulia Str. Clujului nr. 10 Alba Iulia	0258 / 811.988 0258 / 811.891 0258/810 411	
General Inspectorate for Emergency Situations	Str. Banu Dumitrache, nr. 46, sector 2, București	021 242 2608	
Abrud Police Department	Piața Eroilor nr. 1 Abrud	0258/780 519 0258/780 504	

¹ List any special capabilities, e.g., trauma centre, number of beds, triage/burn unit, HAZMAT cleanup, bomb disposal/terrorism response

Organization	Address	Phone	Special Capabilities ¹
Abrud Hospital	Str. Republicii nr. 13 Abrud	0258/780 614	
Alba Iulia Police Department	Str. Mureşanu Andrei nr. 2 Alba Iulia	0258/811 286 0258/812 204	
Alba County Hospital	Bd. Revoluţiei 1989 nr. 23 Alba Iulia	0258/820 825	TBD
National Fire Department Services	Not applicable	981	TBD
National Police Department	Not applicable	955	TBD
National Ambulance Centre	Not applicable	961/962	
SMURD Ambulance Services	Târgu Mureş	4065 210 110	
Environmental Protection Agency	Str. Lalelelor nr. 7A 2500 Alba Iulia	Phone:0258/813.248 0258/813.290	

Organization	Address	Phone	Special Capabilities1
	județul Alba	Fax: 0258/816.834 0258/813.248 E-mail: apmalba@apulum.ro	
National Environment Guard – Alba County Station	Str. Lalelelor nr. 7A Alba Iulia Jud. Alba	Telefon : 0258/816834 Fax : 0258/816834	
Alba Water Management System	Str. Lalelelor nr. 7A Alba Iulia Jud. Alba	Tel. 0258/833578 0258/833356 Fax 0258/834428	
S.G.A. Alba – Hydro-technical System “Arieș” - Turda	Str. Stadionului nr.12 Turda Jud. Cluj	Telefon : 0264/313461 0264/313463 Fax : 0264/313462 E-mail : sgaturda@mail.dntcj.ro	

1 Introduction

1.1 Scope and Purpose

The primary purpose of this *Emergency Preparedness and Spill Contingency Plan* (referred to hereafter as the “*Emergency Plan*” or “*Plan*”) is to provide comprehensive guidance on the measures RMGC will use to prevent, prepare for, and implement in response to a broad range of emergency situations that could potentially occur at the Roşia Montană Project site. It applies only to Roşia Montană Project (Project) activities, and focuses on the concepts of prevention and preparedness in minimising the extent and impact of the emergencies that may arise in association with all phases of Project activities.

The guidance and procedures provided in this *Plan*, as well as those provided in the RMGC *Occupational Health and Safety Plan* and other plans and procedures cited herein, are designed to uphold RMGC policies for minimising potential hazards to human health, the environment, and property. Preplanning, preventative measures, training, and efficient execution of the procedures outlined in this *Plan* and the RMGC *Occupational Health and Safety Plan* should collectively minimise the potential hazards and reduce the potential impact of hazardous operations within RMGC’s project footprint. International experience strongly indicates that the difference between an emergency situation with a straightforward recovery and one with incapacitating or long-term effects is in preplanning, training, and proper execution of emergency procedures.

This *Plan* and the RMGC *Occupational Health and Safety Plan* provide detailed guidance to RMGC employees and contractors. RMGC will also ensure that the *Emergency Preparedness and Spill Contingency Plan* is properly aligned and coordinated with the existing emergency plan(s) that may be issued by the communities adjacent to the project site as well as along major transportation corridors. RMGC will consult with and engage local first responders at the operational level, and will formulate co-operative agreements on all anticipated response scenarios (e.g., spillage of hazardous materials en route to the mine site) prior to the project phases in which they may occur. Community emergency plans typically provide practical guidance for community officials, civil emergency response personnel, and nearby businesses and residents with regard to emergency preparedness and appropriate response actions to be taken in the event of an emergency at the Roşia Montană Project site or a Project-related transportation emergency. Such plans also typically consider other potential emergencies for which the assistance of RMGC and its full capabilities may be required in response to an unplanned event of such magnitude that governmental authorities cannot adequately respond to public needs. RMGC will maintain current copies of all such plans in the Project’s records management system.

1.2 Major Accident Prevention Policy

RMGC is committed to developing, implementing, and maintaining management systems for environment, health, and safety activities that are consistent with recognised standards and our business expectations, in accordance with Romanian law and relevant European Union (EU) and international guidelines. The company will undertake all necessary and appropriate actions to minimise the risk of harm to the environment, employees, visitors, and surrounding communities.

RMGC will:

- provide sufficient resources to accomplish our environmental, health and safety policy principles and codes of conduct;

- pro-actively manage risk to the environment and our employees;
- implement systematic measures to track our efforts, successes, and incidents;
- systematically plan for the safe closure of the Project;
- conduct or support research programmes to increase knowledge and awareness of potential emergencies associated with mining activities; and
- demonstrate the ability to conduct large-scale mineral extraction operations in a manner protective of the environment, as well as of the health and safety of the workforce and the residents of adjacent communities.

We will implement emergency management plans designed for times of crisis, providing for personnel training, equipment, and emergency and spill response procedures necessary to protect personnel, assets, the environment, and the surrounding for the communities.

We will establish incident reporting mechanisms for monitoring the performance of a work environment that complies with occupational, environmental, health and safety standards designed to prevent accidents and minimise the risk of injury and illness to employees.

We will seek to establish long-term relationships with local communities and other stakeholders on the basis of open and transparent dialogue, development of mutual trust and understanding, implementing and meeting rigorous performance standards, and learning from the communities' experience.

We will work with non-governmental organisations and other external stakeholders to create mutual understanding by engaging, encouraging, and developing constructive relationships with non-governmental organisations or external stakeholders that have an interest in the Project's environmental and social aspects and their associated impacts.

1.3 Applicable Regulations

This *Plan* meets the requirements of Article 20 of Government Emergency Ordinance No 78/2000, *Waste Management*, and Law No 481/2004, *Civil Protection*. In addition, it is consistent with the guidance of the United Nations Environment Programme (UNEP) *Awareness and Preparedness for Emergencies at a Local Level (APELL) for Mining*, EU Council Directive 2003/105/EC (the Seveso III Directive) on the control of major accident hazards for international mining operations, as well as international best management practices (BMPs) typically used by international mining operations in the event of an emergency.

1.4 Populations Susceptible to Potential Emergency Conditions

Employees, Visitors, and Contractors on the Mine Site

Although the future operations and maintenance staffing levels and estimates of potential contractor staff at the mine and mineral processing operations have not yet been finalised, preliminary estimates of staffing levels indicate that up to 2000 individuals may be present on site during the construction phase; this figure may decrease to approximately 550 during operations.

Populations off the Mine Site

According to the March 18, 2002 national census, offsite populations susceptible to potential emergency conditions include the *comuna* of Roşia Montană with a total population of 3,865 people, the *town* of Abrud with a combined population of 6,729, and the *town* of Câmpeni with a combined population of 8,878. Although Câmpeni is not directly adjacent to the mining operations, the potential for impact in the event of an emergency exists for populations along the Abrud River, which flows from Abrud to Câmpeni, and receives waters from the Roşia, Sălişte, and Corna Valley tributaries.

Further information regarding potentially affected populations along the transportation corridors for shipment of equipment and both hazardous and nonhazardous materials and wastes will be incorporated in updates to this *Plan* as transportation/logistics planning for the Project is developed.

1.5 Scope of the Emergency Preparedness and Spill Contingency Plan

As previously noted, this *Plan* is intended for use by the RMGC emergency response organisation and RMGC employees and contractors at the Roşia Montană Project site and other locations within a reasonable response distance from the mine site, and will operate in conjunction with applicable community emergency plans maintained by appropriate local and regional authorities. The *Plan* addresses the following emergency response elements:

- identification of potential emergency scenarios at the Project site as well as the transit corridors for shipment of Project equipment, materials, and wastes;
- risk review and emergency incident classification;
- emergency response organisation and organisational responsibilities;
- coordination with external/governmental emergency response organisations;
- emergency alarms and communication systems;
- emergency response procedures;
- emergency and media communication procedures;
- evacuation procedures;
- emergency response equipment;
- post emergency recovery;
- post emergency mitigation;
- spill prevention measures;
- emergency preparedness inspections and incident simulations or drills; and
- financial and operational maintenance controls for this *Plan*.

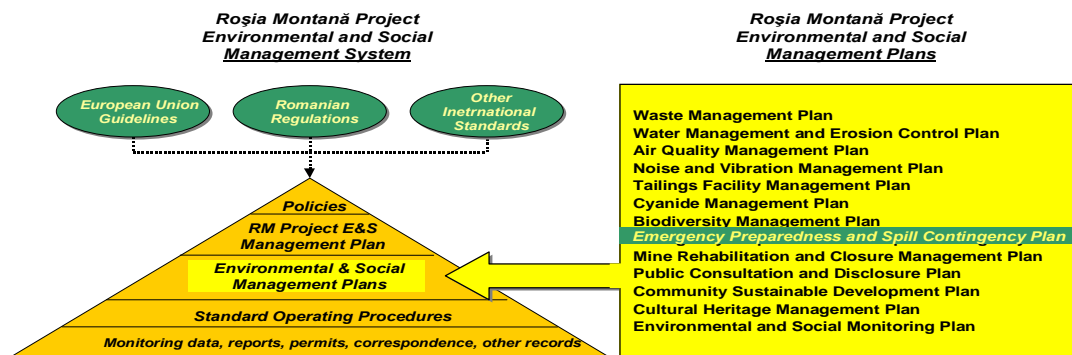
It should be emphasised that, although this *Plan* is designed to provide guidance for plausible emergencies, details cannot be provided for all possible emergency situations. Trained personnel will be expected to make and execute appropriate decisions in response to unexpected emergencies, consistent with the guidance provided. If emergency situations potentially impact the environment and/or populations within response distance of the mine site, this *Plan* shall be applied in conjunction with established community emergency plans maintained by appropriate officials from the affected communities.

2 ESMS Considerations

This *Plan* is one of a suite of environmental or social action plans that have been developed to support the Environmental and Social Management System (ESMS) separately described in the current version of the *Roşia Montană Project Environmental and Social Management Plan*. Collectively, this *Plan* and the other management plans address key operational control needs that have been established for those areas for which the Environmental Impact Assessment (EIA) process¹ indicates that significant environmental or social impacts are either known to exist or are likely to occur in later phases of the mine life cycle.

It must be emphasised that, because mining is a dynamic process, subject to operational changes, changing physical conditions, and changing regulations and stakeholder interests, this *Plan* and all of the other documents that comprise the Project ESMS will be subject to regular periodic reviews and updates in order to ensure that the practices they define remain current, appropriate, and effective.

Figure 2.1. Structural Relationship of Management Plans in the Environmental and Social Management System



The implementation of this *Plan* will be supported by the RMGC *Occupational Health and Safety Plan*, as well as a number of the other management plans noted in Figure 2-1 and detailed Standard Operating Procedures (SOPs). All SOPs identified in this *Plan* will ultimately be compiled in the *RMGC Standard Operating Procedures Manual*, the development, review, approval, distribution, and updates of which will be controlled by the *Roşia Montană Project Environmental and Social Management Plan*. Other specific

document distribution, change control, personnel training, and records management needs, associated with the implementation of this action plan, are likewise addressed through the processes and procedures defined in the *Roşia Montană Project Environmental and Social Management Plan*.

While it is anticipated that new SOPs will be developed and existing SOPs may be updated over the life of the Project as the need arises, a preliminary list of those SOPs which address significant emergency preparedness, contingency planning, and accident prevention functions is provided in Table 2-1.

Table 2-1. Standard Operating Procedures with Emergency Preparedness, Contingency Planning, and/or Accident Prevention Functions

Designator	RMGC SOP Title
EM-01	Emergency Incident Investigation, Reporting, and Recordkeeping
EM-02	Emergency Response Preparedness
EM-03	Emergency Response Equipment – Maintenance, Inspections, and Testing
EM-04	Alcohol Testing for Drivers/Equipment Operators
EM-05	Hazardous Material Storage and Transfer Operations
EM-06	Facility Evacuation and Evacuation Accounting Procedures
EM-07	Site Security
EM-08	Management of Explosives
EM-09	Management of Fuel Storage and Fuelling Facilities
EM-10	Field Fuelling Operations
EM-11	Management of Fuel/Hydrocarbon Spills
EM-12	EM-12, "Management of Reactive Chemical Spills
EM-13	Emergency Use of Force Policy
EM-14	Emergency Site Access Plan (Aerial and Terrestrial)
HS-01	Accident/Near-Miss Investigation, Reporting, and Recordkeeping
HS-02	Electrical Safety
HS-03	First Aid /Medical Attention
HS-04	Hazard Communication
HS-05	Hearing Conservation
HS-06	Respiratory Protection
HS-07	Life Safety Evacuation and Egress
HS-08	Equipment Lockout / Tagout
HS-09	Personal Protective Equipment

Designator	RMGC SOP Title
HS-10	Vehicle, Forklift, and Crane Safety
HS-11	Confined Space Entry
HS-12	Housekeeping
HS-13	Working Surfaces, Ladders, and Scaffolding
HS-14	Fall Protection
HS-15	Fire Protection
HS-16	Routine Safety Inspections
HS-17	Employee Safety Training, Drills, and Meetings
HS-18	Blasting Safety
CN-01	Unloading and Storage of Reagent Cyanide
CN-02	Carbon-in-Leach Facility Operation
CN-03	Cyanide Destruction Plant Operation
CN-04	Inspections of Cyanide Tanks, Pipelines, and Other Cyanide Facilities
CN-06	Maintenance and Calibration of Hydrogen Cyanide Monitoring Equipment
CN-07	Decontamination of Cyanide Handling Equipment
CN-08	Emergency Power Generation for Cyanide Handling Equipment
MP-03	Environmental and Social Management System Training
MP-05	Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents
MP-08	Surveillance Inspection
MP-09	Regulatory Compliance Verifications
MP-10	Corrective and Preventive Action for Environmental and Social Management System Non-conformances
MP-11	Management of Environmental and Social Management System Records
MP-12	Internal Environmental and Social Management System Performance Verifications
MP-13	Management Reviews
MP-14	Mine Planning Process
NM-02	Test Blasting and Development and Implementation of Quarry or Pit-Specific Blasting Plans
TF-02	Normal Operating Procedures - Tailings Deposition
TF-03	Normal Operating Procedures - Tailings Water Management
TF-04	TMF - Operations Inspection and Reporting
TF-05	TMF – Emergency Notification Process
TF-06	TMF – Engineering Risk Analysis

Designator	RMGC SOP Title
TF-07	TMF – Air Monitoring/Meteorological Facility
WT-09	Inspection and Monitoring of Lined Ponds
WT-11	Operations and Maintenance of the Storm Water and Spill Collection Pond
WT-12	Operations and Maintenance of the Catchment Dam
WT-13	Erosion Control Considerations in Mine Planning
WT-14	Waste Rock Management Erosion Control Considerations
WT-15	Water Management Erosion Control Considerations
WT-16	Soil Stabilization and Sediment Control

Examples of the initial drafts of several selected SOPs are provided for information only in Attachment 1 of this *Plan*. SOP developers shall, as appropriate for the subject of the SOP, specifically consider the guidance provided in Attachments 2 and 3 of this *Plan* and other referenced guidance documents. Attachment 2 is the *Good practice in emergency preparedness and response* manual published by UNEP and the International Council on Mining & Metals (ICMM).ⁱⁱ SOPs addressing the transportation, handling, management, and usage of cyanide shall also specifically consider the guidance provided in current version of the *International Cyanide Management Code*ⁱⁱⁱ as well as Attachment 3, *Sodium Cyanide: Properties, Uses, Storage, and Handling*.^{iv} It must be emphasized that the latter document is provided for general guidance only to the preparers of Roşia Montană Project SOPs, and shall not in any way be construed as an endorsement or commitment to purchase the authors' chemical products or delivery systems.

3 Identification of Major Hazards

3.1 Project Site - General Description

The Roşia Montană Project site is located in the vicinity of the village and *comuna* of Roşia Montană in Alba County, Romania. Alba County is located in west-central Romania, in the "Golden Quadrilateral" region of the Apuseni and Metaliferi ranges. The development of the Project will involve a wide range of activities, including:

- local and regional mining exploration;
- development of open pit mines, processing plant operations, a tailings management facility (TMF), waste rock stockpiles, and various support facilities;
- transportation of equipment and both hazardous and non-hazardous materials, and wastes;
- management and mitigation of the environmental and social impacts of mining activities;
- restoration and rehabilitation of mined areas;
- archaeological surveys, assessments, and other cultural heritage preservation activities;
- mitigation of environmental impacts caused by historical mining operations;
- support for various local and regional development planning efforts; and
- other activities.

More detailed background discussions of the scope of the Project may be found in Chapter 2 of the Project EIA.^v

3.2 Material Handling and Storage Hazards

Primary Internal Transportation Methods and Routes

Transportation of equipment or hazardous materials onsite or via the transportation corridors to the Roşia Montană Project site presents a risk to persons and equipment on the site as well as populations and the environment near the associated transportation corridor. The following is a brief discussion of potentially significant transportation and storage hazards.

Transportation of Ore and Waste Rock

Roşia Montană Project mining operations will employ conventional open pit mining techniques utilising drilling blasting, loading and haulage operations utilising blast-hole drills, hydraulic shovels, front-end-loaders and off-road dump trucks. Four open pits (Cetate, Cârnic, Orlea and Jig), will be excavated over the life of the mine. While the ore itself is not considered hazardous, hauling of the ore on mine site haul roads does present the hazards expected from operation of large mobile equipment with limited visibility and limited stopping capabilities. The nominal life-of-mine production rate is estimated at 36,000 tonnes of ore per day being moved from the mine pits to the processing facility and nearly as much waste rock being moved each day from excavation operations to waste rock stockpiles. Hydraulic shovels or front-end loaders will be used to load the ore and waste rock into 150 tonne capacity haul trucks.

Transportation and Storage of Cyanide

The Roşia Montană Project will require transportation and delivery of sodium cyanide on a daily basis throughout the operation of the process plant. Sodium cyanide is a hazardous industrial chemical, and through its contractual arrangements and the design of the processing plant and ancillary facilities, RMGC recognises its primary responsibility for ensuring the safe and environmentally sound transport of sodium cyanide to the mine site. RMGC has committed to the implementation of a series of BMPs for cyanide transport. These measures are discussed in greater detail in the Project *Cyanide Management Plan*, and include:

- procurement of cyanide as solid sodium cyanide briquettes in specially-designed and certified delivery containers;
- definition of detailed contractual requirements for (and periodic audits of) the cyanide transporter, including written summaries of responsibilities during transport; these include:
 - training/competence certifications for all drivers;
 - alcohol testing for delivery and escort vehicle drivers, before and after delivery;
 - equipping the convoy and escort (approach) vehicles with flashing lights and UN-compliant signals and placards;
 - delivery container design requirements, condition, and certification;
 - hazardous properties labelling, in Romanian and English;
 - evaluation and selection of routes to reduce risks, including logistics considerations and RMGC/local community emergency response contacts;
 - storage and security at ports of entry and any temporary warehousing or storage facilities;
 - direct (radio/telephone) communication capabilities along the entire transit route, including Global Positioning System (GPS) tracking;
 - specific logistics and routing instructions for transport to the operation;
 - specific instructions for unloading at the operation;
 - safety and maintenance of the means of transportation (e.g. vessels, vehicles, or train cars) throughout transport;
 - compliance with applicable national regulations in each phase of transport;
 - safety training for transporters and handlers throughout transport;
 - security throughout transport; and
 - planned and co-ordinated emergency response actions, if necessary, at any point in the transportation process.

Cyanide shipment arrivals will be carefully controlled and will be routed from the main plant access road to the site road to the reagent unloading and storage area of the process plant.

As noted in Sections 6.1 and 6.2 of the *Cyanide Management Plan*, cyanide offloading will require the mixing of high pH water into the truck's delivery containers to dissolve the sodium cyanide briquettes. This mixing process will be conducted with the truck parked on a bermed concrete pad, sloped towards a containment designed to contain 110% of the entire

load of sodium cyanide. Dissolved cyanide will be pumped to a process storage tank, located within a fenced and similarly bermed compound. Management controls and alarms will be installed to prevent overflowing of tanks and to warn operators of any potential release; spill cleanup kits with appropriate neutralisers will be located next to the offloading and process tank storage areas.

Transportation and Storage of Explosives

The Project will employ modern blasting techniques for quarrying and open pit development during the construction and operational phases of the mine, and will undertake all necessary measures to ensure the safe transport and use of explosive materials. Detonator cord, blasting caps, high explosive initiators, and bulk ammonium nitrate and fuel oil (ANFO) slurry components will be transported by licensed and bonded specialist carriers subject to strict contractual controls similar to those specified for cyanide shipments in Section Transportation and Storage of the Cyanide. Detonator cord and blasting caps will be transported separately from high explosives and ANFO components. ANFO slurry components will likewise be separated into different shipments to eliminate any potential for mixing during shipment. Explosives magazines and bulk silos for ANFO slurry components will be designed to conform to Romanian standards and international BMPs, and will be located in a secure (fenced, gated, and locked or guarded) area south of the Cetate pit, approximately 600 metres away from the process plant and over 3 km from the nearest human habitation. Detonator cord and high explosive initiators will be stored in separate specially equipped dedicated warehouses. Detonators, explosives, and ANFO components will be transported to the points of use in the pits and quarries via onsite haul and access roads using specialised vehicles.

Transportation and Storage of Other Process Chemicals and Reagents

Other reactive process chemicals and reagents may include:

- slaked pebble lime,
- carbon dioxide,
- flocculants,
- water treatment reagents,
- hydrochloric acid,
- copper sulphate,
- sodium metabisulphite, and
- sodium hydroxide.

These chemicals will typically arrive at the facility in bulk or in containers such as totes, drums, or bins. Shipments will be made via licensed and bonded commercial carriers; they will arrive via the main plant access road and will be routed over process plant site roads to the reagent storage area or directly to point of use. The reagent storage area will be covered and will incorporate bermed concrete secondary containment capable of storing 110% of the total volume of materials stored.

Transportation and Storage of Fuel/Lubricants

Diesel fuel, gasoline, liquefied petroleum gas (LPG), lubricants, and other hydrocarbon-based compounds (e.g., paints, solvents) will be delivered by licensed and bonded carriers in bulk or in drums, and stored on site near the process plant in aboveground tanks or covered storage areas. All storage tanks and storage areas will be constructed to conform to applicable Romanian standards and international BMPs, and will incorporate bermed concrete secondary containments capable of storing 110% of the total volume of materials stored.

Spill Prevention - Loading and Unloading

Spill prevention measures to be taken during loading and unloading of hazardous materials are discussed in Section 13.

Hazardous Material Inventory and Storage Locations

The primary hazardous material inventory and storage locations for the Project are presented in Table 3-1.

3.3 Waste Stream Management

The major waste streams from the Project and their associated management measures are summarized in the following paragraphs; emergency scenarios associated with these waste management measures are discussed further in Section 3.4.

Mine Tailings

- The Project's Tailings Management Facility (TMF) is designed as a depository for detoxified tailings slurry [i.e., tailings with a Weak Acid Dissociable (WAD) cyanide concentration reduced to very low levels in accordance with current EU standards]. As noted in Section 4.3 of the Tailings Facility Management Plan, the selected TMF site provides the required design storage capacity for the life of the mine, plus a contingency capacity to handle additional ore that may be found, as well as the water from a 100,000 year Probable Maximum Flood (PMF) event. The TMF location is close to the process plant and open pit sites, thus minimizing the overall project footprint and minimizing associated air quality, noise, and other environmental impacts.

Table 3-1. Hazardous Material Storage Inventory/Locations

Hazardous Material	Storage Location	No. of Tanks	Maximum Capacity
Sodium Cyanide	CN Process Area Storage Facility		2,000 kg
Sodium Cyanide	CN Bulk Storage Facility		
Cyanide mix tank	Reagent Building	1	
Cyanide storage tank	Reagent Building	1	
Flocculants	Reagent Building	Bulk tote system	
Sodium Hydroxide, 50%	Carbon Circuit	1	
Sodium Hydroxide, 20%	Carbon Circuit	1	
Hydrochloric Acid	Carbon Circuit	1	
Copper Sulphate	Reagent Building	1	
Sodium Metabisulphite	Cyanide detoxification unit	1	
Ammonium Nitrate	Explosives magazine area	Dedicated silos	
ANFO slurry	Explosives magazine area	Dedicated silos	
Diesel Fuel	Fuel Storage and Distribution Area	1	800,000 liters
Gasoline	Fuel Storage and Distribution Area	1	20,000 liters
Lubricants/solvents		Covered/bermed warehouse	
Hydraulic fluid		Covered/bermed warehouse	
LPG		Certified steel pressure tank	
Slaked Pebble Lime	Wastewater Treatment Plant	Dedicated silos	TBD
Mercury (elemental - smelting by-product waste)	Temporary Hazardous Waste Storage Facility	UN-compliant sealed flasks	TBD

The TMF will consist of a primary rock filled impoundment (dam), a tailings delivery pipeline and distribution system, a seepage collection and return system, and a secondary containment system consisting of an excavated sump, secondary containment dam, and (ultimately) a semi-passive seepage treatment cell system that, if necessary, will be operated in closure. Details of TMF design and operation are provided in the *Tailings Facility Management Plan*.

Acid Rock Drainage

The Roşia Montană Project site is heavily impacted by uncontrolled historic mining practices, which have resulted in acid rock drainage (ARD) conditions and subsequent degradation of water quality. RMGC has committed to manage historical ARD conditions within the boundaries of its concession, as well as the potential for such conditions to be created by new mining operations. As noted in the Project *Water Management and Erosion Control Plan*, the Roşia Valley drainage is the most heavily impacted. Impacted water from this drainage will be captured and routed to the Cetate Water Catchment Dam and pond, from whence it will be routed to a dedicated wastewater treatment plant. Treated water will be used as makeup water in the process plant to the extent possible, thereby minimising the Project's fresh water needs. Some of the surface water from the Corna Valley will also be routed for treatment; other water will report to the TMF. The TMF will contain substantial buffering capacity, and the TMF supernatant pond water will also be pumped back to the process plant as makeup water. Treated water may be released to the Roşia and Corna streams downstream of mining operations as necessary to maintain biological baseflows in dry seasonal conditions, but otherwise will be continually recycled back to the process plant.

Non-Hazardous and Hazardous Waste

The Project *Waste Management Plan* describes how RMGC will minimise and manage non-hazardous and hazardous waste streams resulting from mining operations in accordance with applicable regulations and a preferred waste management hierarchy. Waste streams are categorised in accordance with current Romanian regulations. The *Waste Management Plan* provides guidance for the preparation and maintenance of a detailed waste inventory and waste minimisation plan. In addition, the *Waste Management Plan* details processes for the collection, segregation, storage, and disposal of non-hazardous and hazardous waste. Except for certain types of inert waste, tailings, and waste rock, no wastes will be permanently disposed of on site. Municipal wastes will be routinely collected and shipped to a licensed landfill. Hazardous wastes are expected to be very limited in volume, and will be accumulated in a dedicated Temporary Hazardous Waste Storage Facility pending shipment to a properly permitted offsite disposal facility. Where third-party waste management contractors are to be used, the *Waste Management Plan* invokes a mandatory surveillance and audit scheme to ensure that the contractors exercise a similar level of control over their operations.

3.4 Potential Major Accident Scenarios

Roşia Montană Project operations will involve the use and management of a variety of hazardous materials and wastes, heavy equipment, and complex physical and process operations that represent potential hazards to employees, the public, and the environment. While RMGC has established a wide range of management systems and practices to address such potential hazards, mining is nevertheless a dynamic and intrinsically

hazardous enterprise. It is crucial for the purposes of this *Plan* that such hazards be systematically considered and periodically reviewed so that the effects of changing operational conditions, stakeholder concerns, and other factors can be recognised, and the hazards further mitigated or management practices refined to reduce the likelihood or consequences of accidents.

In keeping with the guidance provided in the UNEP APELL for Mining and the Seveso II Directive, RMGC management will consider and identify reasonably probable scenarios for major emergencies, and then establish countermanding actions to prevent their occurrence. The following paragraphs identify several such scenarios, which are consistent with the assessment of project risks and their associated probabilities that was undertaken in Chapter 7 of the Project EIA. The mining operation is designed specifically to prevent these situations from actually occurring; see Section 13.0 for more detail. Despite the improbability of their occurrence, for the purpose of this Plan these have nevertheless been identified as the “most likely” predicted emergency scenarios for the types of operations and materials involved.

Potential Cyanide Release

Approaches and procedures to minimise the potential for an accident involving cyanide are integral to the design of the project plant and TMF, and are addressed in the *Cyanide Management Plan*, numerous cyanide process control SOPs, and the *Tailings Facility Management Plan*. The processes in which cyanide is transferred, stored, used, and/or detoxified are being rigorously designed according to best industry design practices as well as applicable Romanian and international standards. However, five potential scenarios are identified below, along with brief summaries of the nature of the potential release or exposure and the general response actions that RMGC considers to be most appropriate.

Scenario 1: Potential release of hydrogen cyanide gas during cyanide off-loading, storage, and initial mixing of process solution (tank rupture scenario)

Nature of Incident:	High-concentration hydrogen cyanide gas release
Potential cause:	Rupture of container tanks of solid sodium cyanide during off-loading and initial process solution mixing, and subsequent contact of cyanide with precipitation or other water source of low to neutral pH, due to operator error and/or equipment failure
Preventive measures	<p>Design of covered offloading area to permit safe manoeuvring of trucks and trailers and elimination of precipitation and all potential sources sources of low to neutral pH water</p> <p>Compliance with the Cyanide Management Plan.</p> <p>Compliance with applicable SOPs, including:</p> <p>CN-01, "Unloading and Storage of Reagent Cyanide"</p> <p>CN-02, "Carbon-in-Leach Facility Operation"</p> <p>CN-04, "Inspections of Cyanide Tanks, Pipelines, and other Cyanide Facilities"</p> <p>CN-06, "Maintenance and Calibration of Hydrogen Cyanide Monitoring Equipment"</p> <p>CN-07, "Decontamination of Cyanide Handling Equipment"</p> <p>CN-08, "Emergency Power Generation for Cyanide Handling Equipment"</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>EM-04, "Alcohol Testing for Drivers/Equipment Operators"</p> <p>EM-05, "Hazardous Material Storage and Transfer Operations"</p> <p>MP-03, "Environmental and Social Management Training"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination with the applicable Roşia Montană and Abrud community emergency plan and local officials.</p> <p>Notify and evacuate down-wind areas; stop release, contain spill, and neutralise if possible, followed by immediate first aid for any exposed personnel.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Potential Sodium Cyanide Release.</p>

Scenario 2: Potential release of hydrogen cyanide gas during initial mixing of process solution (operator error scenario)

Nature of Incident:	High-concentration hydrogen cyanide gas release
Potential cause:	Operator error during process solution mixing that would introduce low to neutral pH water into the container tank
Preventive measures:	<p>Piping system interlocks designed to prevent an potential for accidental operator introduction of low to neutral pH water</p> <p>Compliance with the Cyanide Management Plan.</p> <p>Compliance with applicable SOPs, including:</p> <p>CN-01, "Unloading and Storage of Reagent Cyanide"</p> <p>CN-02, "Carbon-in-Leach Facility Operation"</p> <p>CN-04, "Inspections of Cyanide Tanks, Pipelines, and other Cyanide Facilities"</p> <p>CN-06, "Maintenance and Calibration of Hydrogen Cyanide Monitoring Equipment"</p> <p>CN-07, "Decontamination of Cyanide Handling Equipment"</p> <p>CN-08, "Emergency Power Generation for Cyanide Handling Equipment"</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>EM-05, "Hazardous Material Storage and Transfer Operations"</p> <p>MP-03, "Environmental and Social Management Training"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination with the applicable Roşia Montană and Abrud community emergency plans and local officials.</p> <p>Notify and evacuate down-wind areas; stop release, contain spill, and neutralise if possible, followed by immediate first aid for any exposed personnel.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Potential Sodium Cyanide Release.</p>

Scenario 3: Potential release of hydrogen cyanide gas from the processing plant or SO₂/air treatment plant

Nature of incident:	Low-concentration hydrogen cyanide gas release
Potential cause:	Upsets in the process pH control systems
Preventive measures	<p>Installation of pH monitoring equipment (with backups) and establishment of alarmed set points to prevent pH control excursions</p> <p>Compliance with the Cyanide Management Plan</p> <p>Compliance with applicable SOPs, including:</p> <p>CN-02, "Carbon-in-Leach Facility Operation"</p> <p>CN-04, "Inspections of Cyanide Tanks, Pipelines, and other Cyanide Facilities"</p> <p>CN-06, "Maintenance and Calibration of Hydrogen Cyanide Monitoring Equipment"</p> <p>CN-07, "Decontamination of Cyanide Handling Equipment"</p> <p>CN-08, "Emergency Power Generation for Cyanide Handling Equipment"</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>EM-05, "Hazardous Material Storage and Transfer Operations"</p> <p>MP-03, "Environmental and Social Management Training"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination with the applicable Roşia Montană and Abrud community emergency plan and local officials.</p> <p>Notify and evacuate down-wind areas; stop release, contain spill, and neutralise if possible, followed by immediate first aid for any exposed personnel</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Potential Sodium Cyanide Release.</p>

Scenario 4: Potential generation of hydrogen cyanide gas from accidental release of sodium cyanide briquettes during transport to the Project site

Nature of incident:	Potential generation of hydrogen cyanide gas from accidental release of sodium cyanide briquettes.
Potential cause:	Transport vehicle accident; breach of ISO container and contact with water.
Preventive measures:	<p>Maximisation of rail (vs. road) transportation in logistics planning for delivery of cyanide briquettes.</p> <p>Avoidance of high risk road areas as indicated by transportation route surveys and evaluation and selection of routes to minimise risks, including logistics considerations and local community emergency response capabilities.</p> <p>Establishment of co-operative arrangements with emergency response organisations located in towns or villages along the primary transportation corridors.</p> <p>Strict contractual controls over transport operations (see Transportation and Storage of Cyanide and the Cyanide Management Plan), including</p> <ul style="list-style-type: none"> • driver training/competence certifications; • alcohol testing for delivery and escort vehicle drivers, before and after delivery; • specific logistics and routing instructions for transport to the operation; • convoy and escort vehicles with flashing lights and UN-compliant signals and placarding; • delivery container design requirements, condition, and certification; • direct (radio/telephone) communication capabilities along the entire transit route, including Global Positioning System (GPS) tracking; • safety and maintenance of the means of transportation (e.g. vessels, vehicles, or train cars) throughout transport; • compliance with applicable national regulations in each phase of transport; • safety training for transporters and handlers throughout transport; • security throughout transport; and • specific instructions for unloading; and • planned and co-ordinated emergency response actions, if necessary, at any point in the transportation process. <p>RMGC and transporter compliance with the International Cyanide Management Code</p> <p>Compliance with the periodic emergency response drill and all other requirements of the Cyanide Management Plan</p> <p>Compliance with applicable SOPs including:</p> <p>CN-07, "Decontamination of Cyanide Handling Equipment"</p>

	<p>EM-02, "Emergency Response Preparedness"</p> <p>EM-05, "Hazardous Material Storage and Transfer Operations"</p> <p>MP-03, "Environmental and Social Management Training"</p>
<p>Response:</p>	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with transporter representatives and with the nearest local emergency response organization</p> <p>Contact and co-ordinate other response actions with local, regional, and national officials, as indicated by the community emergency plans from the affected transportation corridor communities</p> <p>Secure the spill site, immediately initiate air quality monitoring actions, notify and evacuate down-wind residential areas as indicated.</p> <p>Under dry conditions, use shovels and/or front-end loader to pick up material and place in drums for use or eventual return to the chemical manufacturer for recycling, and remediate contaminated soil; under wet conditions, cover with plastic to prevent contact with water and recover material when dry.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Potential Sodium Cyanide Release.</p>

Scenario 5: Potential cyanide solution releases within the process plant from faulty tanks, pipelines, fittings, or valves

Nature of incident:	Strong cyanide solution release from reagent mixing, storage, or carbon-in-leach (CIL) tanks; low strength cyanide solution release from processing area; or very low strength cyanide solution release from SO ₂ /air treatment plant
Potential cause:	Failure or leaks from tanks, pipelines, couplings, valves, or secondary containment systems; power outages and pump failures occurring simultaneously with malfunctions of pump interlocks and high-level switches
Preventive measures	<p>Design to prohibit potential mixing of process solution with precipitation or low- or neutral pH water</p> <p>Installation of bermed secondary containments for the CIL tanks and all cyanide process areas within the process plant, capable of capturing 110% of the volume of process solution that could potentially report to a given containment</p> <p>Installation of hydrogen cyanide gas alarms above the CIL tanks and at other appropriate locations throughout the plant</p> <p>Design of interlocks and backup systems to eliminate the potential for simultaneous pump/level switch failures</p> <p>Installation of backup generators to prevent loss of electrical service to all cyanide process pumps</p> <p>Use of BMP design standards for piping system/pump/ component selection, including requirements for materials and structural characteristics compatible with cyanide service</p> <p>Engagement of qualified construction firm with certified tank and piping system welders</p> <p>Strict construction quality assurance requirements in construction and acceptance testing of process plant, including receiving inspection of all construction materials, welder certification and welding inspections, tank and piping system integrity inspections, and appropriate system pressure and operational tests during plant commissioning</p> <p>Compliance with the periodic emergency response drill requirements and other provisions of the Cyanide Management Plan</p> <p>Compliance with applicable SOPs including:</p> <p>CN-01, "Unloading and Storage of Reagent Cyanide"</p> <p>CN-02, "Carbon-in -Leach Facility Operation"</p> <p>CN-04, "Inspections of Cyanide Tanks, Pipelines, and other Cyanide Facilities"</p> <p>CN-06, "Maintenance and Calibration of Hydrogen Cyanide Monitoring Equipment"</p> <p>CN-07, "Decontamination of Cyanide Handling Equipment"</p> <p>CN-08, "Emergency Power Generation for Cyanide Handling Equipment"</p> <p>EM-02, "Emergency Response Preparedness"</p>

	<p>EM-05, "Hazardous Material Storage and Transfer Operations" MP-03, "Environmental and Social Management Training"</p>
<p>Response:</p>	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination with the applicable Roşia Montană and Abrud community emergency plan and local officials</p> <p>Notify and evacuate downwind areas; stop release, contain spill, and neutralize if possible, followed by immediate first aid for any exposed personnel</p> <p>Pump spilled solutions from secondary containments back to the cyanidation process</p> <p>Use earth-moving equipment to construct emergency catchment areas, as necessary if containments were breached, and remediate any contaminated soil areas</p> <p>Pump spilled process solution back to the cyanidation process</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Potential Sodium Cyanide Release.</p>

TMF Emergency Scenarios

Approaches and procedures to minimise the potential for an accident involving the TMF are included in the *Tailings Facility Management Plan* as well as numerous Tailings Facility SOPs. The TMF is rigorously designed to applicable Romanian and international standards to provide a facility for the safe and environmentally acceptable storage of the treated tailings. Nevertheless, regulatory requirements and best management practices require careful consideration of any potential emergency scenarios, no matter how unlikely. Two potential TMF emergency scenarios are identified below, along with brief summaries of the probable nature of the potential release or exposure. Appropriate actions are suggested in response to each scenario. Implementation of these actions, if required, will be documented and carried through to completion in accordance with the corrective and preventive action processes established by the *Roşia Montană Project Environmental and Social Management Plan*.

Scenario 1: Breach in tailings pipeline

Nature of incident:	Release of detoxified tailings (with trace concentrations of WAD cyanide) from tailings pipeline.
Potential cause:	Failure in pipeline (pipe sections, welds, couplings, or valves) due to flaws in workmanship, physical damage, and/or corrosion.
Preventive measures	<p>Use of BMP design standards for pipeline design and material selection.</p> <p>Installation of pressure drop leak detection system in pipeline.</p> <p>Installation of lined catchments at strategic points on pipeline alignment to contain potential spills.</p> <p>Burial or physical protection of pipeline in potential traffic areas.</p> <p>Engagement of qualified construction firm with certified pipeline welders and pipeline coating specialists.</p> <p>Strict construction quality assurance requirements in construction and acceptance testing of pipeline components, including receiving inspection of all construction materials, weld inspections, pipeline coating and integrity inspections, and pressure and operational tests during pipeline commissioning.</p> <p>Compliance with Tailings Facility Management Plan, including periodic condition/integrity inspections and periodic emergency response drills, as specified.</p> <p>Compliance with applicable SOPs including:</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>TF-01, "Operations Start-up"</p> <p>TF-02, "Normal Operating Procedures- Tailings Deposition"</p> <p>TF-04, "Tailings Management Facility- Operations Inspection and Reporting"</p> <p>TF-05, "Tailings Management Facility- Emergency Notification Process"</p> <p>TF-06, "Tailings Management Facility- Engineering Risk Analysis"</p> <p>TF-07, "Tailings Management Facility- Air Monitoring/Meteorological Facility"</p> <p>TF-08, "Tailings Management Facility- Emergency Notification Requirement"</p> <p>TF-09, "Tailings Management Facility- Health and Safety"</p> <p>TF-11, "Tailings Management Facility- Health and Safety Monitoring"</p> <p>MP-03, "Environmental and Social Management Training"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III</p> <p>Initiate emergency shutdown of process plant operations, stop detoxified tailings release,</p> <p>Contain spill, pump spilled tailings from secondary containments to the TMF</p> <p>Initiate pipeline repairs, conduct weld inspections and acceptance testing of repaired sections prior to authorising process plant restart</p> <p>Use earth-moving equipment to construct emergency catchment areas, as</p>

	<p>necessary if containments were breached</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as applicable, as described in Section TMF Secondary Containment Dam Failure.</p>
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Scenario 2: Breach in TMF (main embankment) and/or Secondary Containment Dam

Nature of incident:	Major breach of the TMF tailings dam (main embankment) and/or Secondary Containment Dam
Potential cause:	Earthquake, foundation failure, overtopping, erosion, or bombing or other manmade action intended to cause a dam breach
Preventive measures	<p>Institution of rigorous site security procedures in accordance with EM-07, "Site Security"</p> <p>Proactive engagement of external stakeholders and local, regional, and national officials in accordance with the Project Public Consultation and Disclosure Plan</p> <p>Compliance with the emergency response drill requirements and other provisions of the Tailings Facility Management Plan</p> <p>Compliance with all proactive monitoring, inspection, and other requirements from all applicable SOPs including:</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>TF-03, "Normal Operating Procedures- Tailings Water Management"</p> <p>TF-04, "Tailings Management Facility- Operations Inspection and Reporting"</p> <p>TF-05, "Tailings Management Facility- Emergency Notification Process"</p> <p>TF-06, "Tailings Management Facility- Engineering Risk Analysis"</p> <p>TF-07, "Tailings Management Facility- Air Monitoring/Meteorological Facility"</p> <p>TF-08, "Tailings Management Facility- Emergency Notification Requirement"</p> <p>TF-09, "Tailings Management Facility- Health and Safety"</p> <p>TF-10, "Tailings Management Facility- Risk Analysis"</p> <p>TF-11, "Tailings Management Facility- Health and Safety Monitoring"</p> <p>TF-12, "Tailings Management Facility- Groundwater Monitoring"</p> <p>TF-13, "Tailings Management Facility- Surface Water Monitoring"</p> <p>TF-14, "Tailings Management Facility- Air Monitoring/Meteorological Facility"</p> <p>MP-03, "Environmental and Social Management Training"</p> <p>If daily monitoring reveals worsening or unexpected conditions, shut down process plant and tailings pipeline, pump down the decant pond, and minimise other inflow into the TMF by placement of diversion berms or dikes; alert public officials and issue evacuation alert to affected communities via community emergency response contacts</p>
Response:	<p>Immediate implementation of this Emergency Preparedness and Spill Contingency Plan at Level IV; immediately alert and mobilise site and local emergency response organisations, co-ordinate with emergency response organisations as described in the Roşia Montană and Abrud community emergency plans.</p> <p>Administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention".</p> <p>Immediate notification and evacuation of residents in Abrud and</p>

downgradient of the secondary containment dam.

Immediate notification of mine site management and local, regional, and national authorities; notify local law enforcement and military representatives if potential terrorist action is indicated.

Implement emergency systems, shut down the process plant and tailings pipeline, and take site stabilisation actions (e.g., breach repair, backfilling, reinforcement, and installation of dikes or diversion structures) to the practical extent given by the nature of the incident.

Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances".

Implement other emergency-specific actions as applicable, as described in Section TMF Secondary Containment Dam Failure.

Scenario 3: Overtopping of the Tailings Management Facility and/or Secondary Containment System (no dam breach)

Nature of incident:	Overtopping of the TMF and/or Secondary Containment System
Potential cause:	Extreme rain or snowmelt runoff event in excess of the design PMF
Preventive measures	<p>Compliance with the emergency response drill requirements and other provisions of the Tailings Facility Management Plan.</p> <p>Compliance with applicable SOPs including:</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>TF-03, "Normal Operating Procedures- Tailings Water Management"</p> <p>TF-04, "Tailings Management Facility- Operations Inspection and Reporting"</p> <p>TF-05, "Tailings Management Facility- Emergency Notification Process"</p> <p>TF-06, "Tailings Management Facility- Engineering Risk Analysis"</p> <p>TF-07, "Tailings Management Facility- Air Monitoring/Meteorological Facility"</p> <p>TF-08, "Tailings Management Facility- Emergency Notification Requirement"</p> <p>TF-09, "Tailings Management Facility- Health and Safety"</p> <p>TF-10, "Tailings Management Facility- Risk Analysis"</p> <p>TF-11, "Tailings Management Facility- Health and Safety Monitoring"</p> <p>TF-12, "Tailings Management Facility- Groundwater Monitoring"</p> <p>TF-13, "Tailings Management Facility- Surface Water Monitoring"</p> <p>TF-14, "Tailings Management Facility- Air Monitoring/Meteorological Facility"</p> <p>MP-03, "Environmental and Social Management Training"</p> <p>If daily monitoring reveals worsening conditions, shut down process plant and tailings pipeline, pump down the decant pond, and minimise other inflow into the TMF by placement of diversion berms or dikes; alert public officials and issue evacuation alert to affected communities via community emergency response contacts</p>
Response:	<p>Immediate implementation of this Emergency Preparedness and Spill Contingency Plan at Level IV; immediately alert and mobilise site and local emergency response organisations, co-ordinate with emergency response organisations as described in the Roşia Montană and Abrud community emergency plans</p> <p>Administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention"</p> <p>Immediate notification and evacuation of residents in Abrud and downgradient of the secondary containment dam</p> <p>Immediate notification of mine site management and local, regional, and national authorities; notify local law enforcement and military representatives if potential terrorist action is indicated</p> <p>Implement emergency systems, shut down the process plant and tailings</p>

	<p>pipeline, and take site stabilisation actions (e.g., reinforcement of weakened dam areas) to the practical extent given by the nature of the incident</p> <p>Minimise other inflow into the TMF and/or stop overtopping flow by placement of diversion berms or dikes</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, “Emergency Incident Investigation, Reporting, and Record keeping” and MP-10, “Corrective and Preventive Action for Environmental and Social Management System Nonconformances”</p> <p>Implement other emergency-specific actions as applicable, as described in Section TMF Secondary Containment Dam Failure.</p>
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Waste Rock Stockpile Failure

The waste rock stockpiles are designed to internationally and nationally accepted standards for the safe and environmentally benign and stable storage of waste rock. Potential waste rock stockpile emergency scenarios are identified below along with brief summaries of the likely nature of the potential release or exposure and the appropriate response.

Scenario 1: Rock/mudslide from waste rock stockpiles

Nature of incident:	Rock/mudslide of waste rock from waste rock stockpile
Potential cause:	Instability related to the presence of excessive water , improperly constructed or plugged toe drains, or improper placement of waste rock
Preventive measures	<p>Construction and/or monitoring of waste rock stockpiles, waste rock dumping practices, and the performance of associated drainage features in accordance with Annual Mining Plan requirements</p> <p>Maintenance of toe drains and runoff structures in accordance with WT-14 “Waste Rock Management Erosion Control Considerations”</p> <p>Periodic consultation with potentially affected residents in protected areas or adjacent communities, in accordance with the Public Consultation and Disclosure Plan</p> <p>Compliance with the Waste Management Plan, Water Management and Erosion Control Plan, and (in closure) the regrading, cover, and revegetation requirements of the Mine Rehabilitation and Closure Plan</p> <p>Compliance with all other applicable SOPs including:</p> <p>EM-02, “Emergency Response Preparedness”</p> <p>WT-13, “Erosion Control Considerations in Mine Planning”</p> <p>WT-14 “Waste Rock Management Erosion Control Considerations”</p> <p>WT-15 “Water Management Erosion Control Considerations”</p> <p>WT-17 , “Seeding and Revegetation”</p> <p>WT-18, “Erosion Control and Range Management”</p> <p>MP-03, “Environmental and Social Management Training”</p>

	<p>If daily monitoring reveals worsening conditions, minimise other inflow into stockpile area via placement of diversion berms or dikes; alert public officials and issue evacuation alert to affected communities via community emergency response contacts</p>
<p>Response:</p>	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination with the applicable Roşia Montană and Abrud community emergency plan and local officials.</p> <p>Administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention"</p> <p>If Level IV, notify and evacuate residents in the areas down-gradient from the slide</p> <p>Alert and mobilise site and local emergency response organisations</p> <p>Notify mine site management and local and regional authorities</p> <p>Develop and implement plan to stabilise failure zone, re-establish water management structures or features; adjust Annual Mining Plan and monitoring requirements as appropriate</p> <p>Evaluate other waste rock stockpiles for potentially similar failure scenarios and undertake appropriate corrective/preventive action</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as applicable, as described in Section Waste Rock Stockpile Failures.</p>

Pit Slope Failures

Mine pit geometry will be designed to internationally and nationally accepted standards in order to prevent pit slope failures, with due consideration being given to the competence and other geotechnical characteristics of the host rock. However, the natural geotechnical conditions encountered in mining are to a certain extent uncertain, and the potential for slope failures exists. The potential mine pit slope failure emergency scenario is summarised as follows, along with a brief description of preventive measures, the likely nature of the potential release or exposure, and the appropriate response.

Scenario 1: Mine pit slope failure

Nature of incident:	Pit wall collapse or slide
Potential cause:	Improper pit wall design relative to the geotechnical characteristics of the host formation; presence of excessive surface water around the pit leading to highwall saturation; undetected geotechnical anomalies in host rock; and/or improper vehicle travel practices
Preventive measures:	<p>Compliance with international BMPs for pit slope design and performance monitoring, current version of Annual Mining Plan, and MP-15, "Mine Planning Process"</p> <p>Installation of piezometers and institution of a regular pit inspection and water level monitoring program in order to detect potential failure zones and/or increasing pore water pressures in pit slopes; installation of survey points, strain monitoring, and installation of inclinometers to detect physical deformation of pit walls; incorporation of pit-specific monitoring requirements in Annual Mining Plan</p> <p>Establishment of safe vehicle travel requirements while traveling on access roads within the pits, incorporation of such requirements in Annual Mining Plan</p> <p>Management/diversion of surface water to prevent saturation of the pit highwall, in accordance with requirements to be defined and updated in the current Annual Mining Plan</p> <p>If daily monitoring reveals worsening conditions, shut down pit operations and evacuate workforce; minimise other inflow to the highwall by placement of diversion berms or dikes; conduct geotechnical investigations as necessary to support remedial engineering or alteration of mine plan</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III. Evacuate all RMGC and contractor personnel from affected pit. Immediately notify mine management and regulatory authorities as required.</p> <p>Administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention"</p> <p>Develop and implement plan to stabilise failure zone, re-establish water management structures or features; install additional piezometers or other monitoring devices as required; adjust Annual Mining Plan and associated monitoring requirements as appropriate</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"; evaluate other pits for potentially similar failure scenarios and undertake appropriate corrective/preventive action</p> <p>Implement other emergency-specific actions as applicable, as described in Section Pit Slope Failures.</p>

Blasting/Explosives Handling Accidents

Although use of explosives is very common in the mining industry and strict procedures and training have virtually eliminated blasting/explosive accidents, the following potential emergency scenarios have been identified along with brief summaries of the likely nature of the potential release or exposure and the appropriate response.

Scenario 1: Explosion of blasting agents in transit from manufacturer

Nature of incident:	Explosion of blasting agents in transit from manufacturer
Potential cause:	Unidentified ignition sources, improper packaging or transportation controls, or manmade actions (e.g., terrorist intervention or bomb) designed to cause injury or harm
Preventive measures	<p>Avoidance of high risk road areas as indicated by transportation route surveys or information received from law enforcement authorities</p> <p>Evaluation and selection of routes to minimise risks, including logistics considerations and local community emergency response capabilities</p> <p>Establishment of co-operative arrangements with emergency response organisations located in towns or villages along the primary transportation corridors</p> <p>Preferential engagement of appropriately licensed and bonded suppliers/transporters, with excellent safety records</p> <p>Strict contractual controls over transport operations including driver training/competence certifications;</p> <p>alcohol testing for delivery drivers, before and after delivery;</p> <p>specific logistics and routing instructions for transport to the mine;</p> <p>UN-compliant signals and placarding;</p> <p>delivery container design requirements, condition, and certification;</p> <p>direct (radio/telephone) communication capabilities along the entire transit route, including Global Positioning System (GPS) tracking;</p> <p>safety and maintenance delivery trucks at all stages of transport;</p> <p>compliance with applicable national regulations at all stages of transport;</p> <p>safety training for transporters and handlers at all stages of transport;</p> <p>security throughout transport; and</p> <p>planned and co-ordinated emergency response actions, if necessary, at any point in the transportation process.</p> <p>Compliance with EM-08, "Management of Explosives"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with transporter representatives and with the nearest local emergency response organisation</p> <p>Contact and co-ordinate medical team and other response actions with local, regional, and national officials, as indicated by the community emergency</p>

	<p>plans from the affected transportation corridor communities; administer first aid/arrange for medical attention as needed</p> <p>Secure the explosion site, immediately initiate site surveys to detect and neutralise any unexploded materials; notify and evacuate residents in adjacent areas as required</p> <p>Co-ordinate with local law enforcement and military representatives if intentional manmade actions are known or suspected</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Blasting/Explosive Accidents.</p>
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Scenario 2: Explosion of blasting agents at onsite explosives storage area

Nature of incident:	Explosion of blasting agents at onsite explosives magazines and storage area
Potential cause:	Unidentified ignition sources; ungrounded lightning strikes; improper separation and storage of detonators, initiators, and ANFO slurry components; contamination of raw materials; or manmade actions (e.g., terrorist intervention or bomb) designed to cause injury or harm
Preventive measures	<p>Maintenance of strict security at explosive storage area and individual magazines, in accordance with EM-07, "Site Security"</p> <p>Installation of lightning protection devices and deluge/fire suppression systems in magazines and at storage silos; periodic facility inspections; and strict compliance with the other provisions EM-08, "Management of Explosives" and HS-18, "Blasting Safety".</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with the Abrud or Roşia Montană emergency response organisation</p> <p>Administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention"</p> <p>Contact and co-ordinate medical team and other response actions with local, regional, and national officials, as indicated by the community emergency plans from affected communities;</p> <p>Co-ordinate with local law enforcement and military representatives if intentional manmade actions are known or suspected</p> <p>Secure the explosion site, immediately initiate site surveys to detect and neutralise any unexploded materials; notify and evacuate residents in nearby protected areas as required</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and</p>

	<p>Preventive Action for Environmental and Social Management System Nonconformances”</p> <p>Implement other emergency-specific actions as described in Section Blasting/Explosive Accidents.</p>
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Scenario 3: Premature explosion of blasting agents in transit from explosives storage area or at the blasting site

Nature of incident:	Explosion of blasting agents in transit from explosives storage area or at the blasting site (before, during, or after blasthole loading)
Potential cause:	Unidentified ignition sources; improper separation and storage or handling of detonators, initiators, and ANFO slurry components; contamination of raw materials; accidental actions by unauthorised/untrained personnel actions; or other manmade actions (e.g., terrorist intervention or bomb) designed specifically to cause injury or harm
Preventive measures	<p>Transportation of blasting materials to site and preparation for blasting operations under the direction of a certified blasting engineer or blasting technician, in accordance with approved blasting plans developed in accordance with NM-02, “Test Blasting and Development and Implementation of Quarry or Pit-Specific Blasting Plans”</p> <p>Maintenance of strict security in accordance with EM-07, “Site Security”</p> <p>Strict compliance with SOPs EM-08, “Management of Explosives” and HS-18, “Blasting Safety”</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with the Abrud or Roşia Montană emergency response organisation</p> <p>Injuries are likely; administer first aid/arrange for medical attention as needed, in accordance with HS-03, “First Aid/Medical Attention”</p> <p>Contact and co-ordinate medical team and other response actions with local, regional, and national officials, as indicated by the community emergency plans from affected communities;</p> <p>Co-ordinate with local law enforcement and military representatives if intentional manmade actions are known or suspected</p> <p>Secure the explosion site, immediately initiate site surveys to detect and neutralise any unexploded materials; notify and evacuate RMGC employees and residents in nearby protected areas as required</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, “Emergency Incident Investigation, Reporting, and Record keeping” and MP-10, “Corrective and Preventive Action for Environmental and Social Management System Nonconformances”</p> <p>Implement other emergency-specific actions as described in Section Blasting/Explosive Accidents.</p>

Fire/Explosion

Fires or explosions may potentially occur within vehicles, office buildings, process buildings/areas, and storage areas/warehouses may occur, for a variety of potential reasons. The following potential emergency scenarios have been identified along with brief summaries of the likely nature of the potential release or exposure and the appropriate response.

Scenario 1: Fire or explosion within occupied buildings or process areas

Nature of incident:	Fire or explosion within occupied buildings, storage areas, or process areas
Potential cause:	Unidentified ignition sources, lightning strikes, improper process control, contamination of raw materials, electrical system failure, loss of security perimeter or blasting team communications, or manmade actions (e.g., arson or bomb) designed to cause injury or harm
Preventive measures	<p>Designation and enforcement of safe smoking areas</p> <p>Installation of effective lightning protection devices</p> <p>Installation of automated fire suppression systems, firefighting water delivery systems, and location of emergency fire extinguishers</p> <p>Compliance with Emergency Preparedness and Spill Contingency Plan.</p> <p>Compliance with applicable SOPs including:</p> <p>EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing"</p> <p>EM-05, "Hazardous Materials Storage and Transfer Operations"</p> <p>EM-06, "Facility Evacuation and Evacuation Accounting Procedures"</p> <p>EM-08, "Management of Explosives"</p> <p>EM-09, "Management of Fuel Storage and Fuelling Facilities"</p> <p>HS-02, "Electrical Safety"</p> <p>HS-12, "Housekeeping"</p> <p>HS-15, "Fire Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p>
Response:	<p>Immediately evacuate the area or building and notify the fire brigade; notify any nearby/down-wind personnel</p> <p>The fire workers shall respond to fight the fire and administer first aid/arrange for medical attention as needed, in accordance with HS-03, "First Aid/Medical Attention"</p> <p>Co-ordinate with local law enforcement and military representatives if arson or terrorist actions are suspected</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System"</p>

	<p>Nonconformances”</p> <p>Implement other emergency-specific actions as described in Section Fires.</p>
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Scenario 2: Fire or explosion associated with transportation/traffic accidents

Nature of incident:	Fire or explosion associated with transportation/traffic accidents involving transportation of materials, equipment, fuels or lubricants, hazardous materials, hazardous waste, or municipal waste.
Potential cause:	Transport vehicle accident generates ignition of flammable materials or mixing of incompatible materials
Preventive measures:	<p>Maximisation of rail (vs. road) transportation in logistics planning for shipments of materials, equipment, fuels or lubricants, hazardous materials, hazardous waste</p> <p>Avoidance of high risk road areas as indicated by transportation route surveys and evaluation and selection of routes to minimise risks, including logistics considerations and local community emergency response capabilities</p> <p>Establishment of co-operative arrangements with emergency response organisations located in towns or villages along the primary transportation corridors</p> <p>Strict contractual controls over transport operations including</p> <ul style="list-style-type: none"> • driver training/competence certifications; • alcohol testing for vehicle drivers, before and after delivery; • specific logistics and routing instructions for transport to the operation; • delivery container design requirements, condition, and certification; • direct (radio/telephone) communication capabilities along the entire transit route; • safety and maintenance of the means of transportation (e.g. vessels, vehicles, or train cars) throughout transport; • compliance with applicable national regulations in each phase of transport; • safety training for transporters and handlers throughout transport; • security throughout transport; and • specific instructions for unloading; and • planned and co-ordinated emergency response actions, if necessary, at any point in the transportation process. <p>Compliance with applicable SOPs including:</p> <p>EM-02, “Emergency Response Preparedness”</p> <p>EM-04, “Alcohol Testing for Drivers/Equipment Operators”</p> <p>EM-05, “Hazardous Materials Storage and Transfer Operations”</p> <p>HS-10, “Vehicle, Forklift, and Crane Safety”</p>

	<p>HS-15, "Fire Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p> <p>MP-03, "Environmental and Social Management Training"</p>
Response:	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with transporter representatives and with the nearest local emergency response organisation</p> <p>Contact and co-ordinate other response actions with local, regional, and national officials, as indicated by the community emergency plans from the affected transportation corridor communities</p> <p>Secure the spill/fire or explosion site, immediately initiate firefighting actions and air quality monitoring, treat or evacuate injured personnel; notify and evacuate down-wind residential areas as indicated.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Conduct site cleanup and communications actions as indicated by corrective/preventive action determinations</p> <p>Implement other emergency-specific actions as described in Section Fires and Traffic/Mobile Equipment Accidents.</p>

Scenario 3: Fire or Explosion Associated with Fuel Storage and/or Handling

Nature of incident:	Fire and/or explosion associated with fuel loading/unloading or at a fuel (diesel or LPG) storage tank
Potential cause:	Equipment failure, operator error, unidentified ignition sources, electrical system failure, lightning strike
Preventive Measures:	<p>Compliance with applicable SOPs including:</p> <p>EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing"</p> <p>EM-05, "Hazardous Materials Storage and Transfer Operations"</p> <p>EM-09, "Management of Fuel Storage and Fuelling Facilities"</p> <p>EM-10, "Field Fuelling Operations"</p> <p>HS-15, "Fire Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17 Employee Safety Training, Drills, and Meetings"</p>
Response:	Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response

	<p>team with transporter representatives and with the nearest local emergency response organisation</p> <p>Contact and co-ordinate other response actions with local, regional, and national officials, as indicated by the community emergency plans from the affected transportation corridor communities</p> <p>Secure the spill/fire or explosion site, immediately initiate firefighting actions and air quality monitoring, treat or evacuate injured personnel; notify and evacuate down-wind residential areas as indicated.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Conduct site cleanup and communications actions as indicated by corrective/preventive action determinations</p> <p>Implement other emergency-specific actions as described in Section Fires and Traffic/Mobile Equipment Accidents.</p>
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Chemical (non-cyanide) or Fuel/hydrocarbon Spills

In addition to the sodium cyanide and process solutions described previously, a range of process chemicals (e.g., water treatment system constituents) and several categories of fuels or hydrocarbon compounds (e.g., diesel, LPG, lubricants, hydraulic fluid) will be stored on site. The following potential emergency scenarios have been identified for potential spills of such compounds, along with brief summaries of the likely nature of the potential release or exposure, preventive measures, and an appropriate response.

Scenario 1: Chemical or Fuel/hydrocarbon Spills in Process/Storage Areas

Nature of incident:	Chemical spills in processing/storage areas (non-cyanide)
Potential cause:	Equipment failure, operator error, power outage, breach in secondary containments, container corrosion
Preventive measures	<p>Compliance with applicable SOPs including:</p> <p>EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing"</p> <p>EM-05, "Hazardous Materials Storage and Transfer Operations"</p> <p>EM-06, "Facility Evacuation and Evacuation Accounting Procedures"</p> <p>HS-04, "Hazard Communication"</p> <p>HS-10, "Vehicle, Forklift, and Crane Safety"</p> <p>HS-15, "Fire Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p>
Response:	Evacuation of the area, followed by HAZMAT team spill response, and

	<p>medical team to provide medical attention/first aid for exposed personnel, as required.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Chemical/Fuel/Waste Spills</p>
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Scenario 2: Non-cyanide Chemical/Fuel Spills Associated with Transportation/Traffic Accidents

Nature of incident:	Chemical (non-cyanide) and/or fuel spills associated with transportation/traffic accident on or off the Project site.
Potential cause:	Transport vehicle accident generates ignition of flammable materials or mixing of incompatible materials
Preventive measures:	<p>Maximisation of rail (vs. road) transportation in logistics planning for shipments of hazardous chemicals or fuels or lubricants</p> <p>Avoidance of high risk road areas as indicated by transportation route surveys and evaluation and selection of routes to minimise risks, including logistics considerations and local community emergency response capabilities</p> <p>Establishment of co-operative arrangements with emergency response organisations located in towns or villages along the primary transportation corridors</p> <p>Strict contractual controls over transport operations including</p> <ul style="list-style-type: none"> • driver training/competence certifications; • alcohol testing for vehicle drivers, before and after delivery; • specific logistics and routing instructions for transport to the operation; • delivery container design requirements, condition, and certification; • direct (radio/telephone) communication capabilities along the entire transit route; • safety and maintenance of the means of transportation (e.g. vessels, vehicles, or train cars) throughout transport; • compliance with applicable national regulations in each phase of transport; • safety training for transporters and handlers throughout transport; • specific instructions for unloading; and • planned and co-ordinated emergency response actions, if necessary, at any point in the transportation process. <p>Compliance with applicable SOPs including:</p>

	<p>EM-02, "Emergency Response Preparedness"</p> <p>EM-05, "Hazardous Material Storage and Transfer Operations"</p> <p>EM-04, "Alcohol Testing for Drivers/Equipment Operators"</p> <p>EM-05, "Hazardous Materials Storage and Transfer Operations"</p> <p>HS-10, "Vehicle, Forklift, and Crane Safety"</p> <p>HS-15, "Fire Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p> <p>MP-03, "Environmental and Social Management Training"</p>
<p>Response:</p>	<p>Immediate implementation of the Emergency Preparedness and Spill Contingency Plan at Level III or Level IV, depending on the potential for off-site impacts; if Level IV, immediate co-ordination by the RMGC response team with transporter representatives and with the nearest local emergency response organisation</p> <p>Contact and co-ordinate other response actions with local, regional, and national officials, as indicated by the community emergency plans from the affected transportation corridor communities</p> <p>Secure the spill site, mobilise HAZMAT teams to contain spill, treat or evacuate injured personnel; notify and evacuate down-wind residential areas as indicated.</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Conduct site cleanup and communications actions as indicated by corrective/preventive action determinations</p> <p>Implement other emergency-specific actions as described in Section Chemical/Fuel/Waste Spills and Traffic/Mobile Equipment Accidents.</p>

Scenario 3: Fuel Spills Associated with Fuel Storage and/or Handling

Nature of incident:	Fuel spill associated with fuel storage area loading/unloading.
Potential cause:	Equipment failure, operator error
Preventive measures	Compliance with Emergency Preparedness and Spill Contingency Plan. Compliance with applicable SOPs including: EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing" EM-05, "Hazardous Materials Storage and Transfer Operations" EM-09, "Management of Fuel Storage and Fuelling Facilities" EM-10, "Field Fuelling Operations" HS-04, "Hazard Communication" HS-15, "Fire Protection" HS-16, "Routine Safety Inspections" HS-17, "Employee Safety Training, Drills, and Meetings"
Response:	Evacuation of the immediate area followed by HAZMAT team to initiate spill response, and by the medical team to provide medical attention/first aid for exposed personnel. Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances" Implement other emergency-specific actions as described in Section Chemical/Fuel/Waste Spills.

General Transportation/Traffic Accidents

Apart from the transportation-related accident scenarios previously described for hazardous materials, general transportation/traffic accidents are one of the most common emergencies experienced in any industrial setting. The following potential emergency scenario for accidents involving RMGC or contractor vehicles has been identified along with a brief summary of the likely nature of the potential release or exposure and the appropriate response.

Scenario 1: Transportation/Traffic Accidents Onsite

Nature of incident:	Injuries, vehicular damage, and/or damage to property caused by transportation accidents on site or on the transportation corridors to the site
Potential cause:	Equipment failure, operator/driver inebriation or other driving errors, manmade threats, weather conditions
Preventive Measures	Institution of rigorous site security and drunk driver prevention procedures in accordance with EM-07, "Site Security" and EM-04, "Alcohol Testing for Drivers/Equipment Operators"

	<p>Compliance with other applicable SOPs including:</p> <p>EM-02, "Emergency Response Preparedness"</p> <p>EM03, "Emergency Response Equipment – Maintenance, Inspections, and Testing"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p>
Response:	<p>For onsite accidents, secure the immediate area of the accident followed by response by medical team to provide medical attention/first aid for injured personnel</p> <p>For offsite accidents involving RMGC or contractor vehicles, monitor and coordinate response with local community emergency response organisations; ensure appropriate response by medical team to provide medical attention/first aid for injured personnel</p> <p>Conduct incident investigation and undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions as described in Section Traffic/Mobile Equipment Accidents.</p>

Medical Emergencies

Onsite medical emergencies resulting from non-vehicular accidents or illnesses involving employees, mine visitors or contractors are a reasonably common occurrence for a large mining operation, and timely and appropriate medical response may be matter of life and death. The following potential emergency scenarios have been identified along with brief summaries of the likely nature of the emergency and the appropriate response.

Scenario 1: Onsite Medical Emergencies from Non-Vehicular Accidents or Illnesses

Nature of incident:	Persons requiring medical attention as result of illness or pre-existing medical conditions (e.g., heart attack, stroke, seizures, alcohol/drug use, disease or other medical conditions), personal accidents, or other emergencies that include injuries to personnel
Potential cause:	Pre-existing medical conditions, failure to observe safety precautions or procedures, equipment failure, operator error, or natural disasters.
Preventive Measures	<p>Compliance with applicable SOPs including:</p> <p>EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing"</p> <p>HS-02, "Electrical Safety"</p> <p>HS-03, "First Aid/Medical Attention"</p> <p>HS-04, "Hazard Communication"</p> <p>HS-06, "Respiratory Protection"</p> <p>HS-07, "Life Safety Evacuation and Egress"</p>

	<p>HS-08, "Equipment Lockout/Tagout"</p> <p>HS-09, "Personal Protective Equipment"</p> <p>HS-11, "Confined Space Entry"</p> <p>HS-13, "Working Surfaces, Ladders, and Scaffolding"</p> <p>HS-14, "Fall Protection"</p> <p>HS-16, "Routine Safety Inspections"</p> <p>HS-17, "Employee Safety Training, Drills, and Meetings"</p>
Response:	<p>Immediate first aid/Cardiopulmonary Resuscitation by appropriately trained persons closest to the affected person, followed by medical team response, additional medical attention/first aid and expedited evacuation to medical facilities as required</p> <p>Conduct incident investigation and, if appropriate, undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions per Section Medical Emergencies.</p>

Power and/or Other Utility Outages

Power and/or other utility outages can create significant emergencies if appropriate backup and/or procedures are not in place to deal with such situations. The following potential emergency scenarios have been identified along with brief summaries of the likely nature of the emergency and the appropriate response.

Scenario 1: Power Outages

Nature of incident:	Unexpected loss of electrical power.
Potential cause:	Equipment failure due to corrosion, improper maintenance, lightning strikes, or manmade threats
Preventive Measures	<p>Compliance with Emergency Preparedness and Spill Contingency Plan.</p> <p>Institution of strict site security practices in accordance with EM-07, "Site Security"</p> <p>Compliance with other applicable SOPs including:</p> <p>EM-03, "Emergency Response Equipment – Maintenance, Inspections and Testing"</p> <p>CN-08, "Emergency Power Generation for Cyanide Handling Equipment"</p> <p>HS-07, "Life Safety Evacuation and Egress"</p> <p>HS-08, "Equipment Lockout/Tagout"</p> <p>HS-09, "Personal Protective Equipment"</p> <p>HS-16, "Routine Safety Inspections"</p>

	HS-17, "Employee Safety Training, Drills, and Meetings"
Response:	<p>Follow pre-established equipment-specific procedures for recovery from power outages</p> <p>Conduct incident investigation and, if appropriate, undertake appropriate corrective and preventive action in accordance with EM-03, "Emergency Incident Investigation, Reporting, and Record keeping" and MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances"</p> <p>Implement other emergency-specific actions per Section Power and/or Other Utility Failures.</p>

Natural Disasters

Natural disasters can occur suddenly, such as in the case of earthquakes, or may be predictable with several hours or days warning, as in the case of extreme meteorological fronts. In either case, having a plan in place to deal with the disaster before, during and after is the key to minimising the impacts on the facility. The following potential natural disasters have been identified:

- floods,
- earthquakes,
- tornadoes or high winds,
- avalanches/landslides,
- severe weather/precipitation,
- lightning strikes,
- forest fires, and
- droughts.

While natural disasters are not predictable or preventable, the consequences of a natural disaster may potentially include the initiation of one or more of the "major accident scenarios" identified previously in Sections Potential Cyanide Release through Power and/or Other Utility Outages. It shall be the responsibility of the emergency response organisation, during and following a natural disaster, to assess if the conditions defining any of the major accident scenarios or other detrimental consequences have been initiated and to take appropriate response actions. See Section Natural Disasters for further guidance.

Manmade Threats

Manmade threats to the facility can also occur unexpectedly, such as in the case of a bomb threat or terrorist action, or predictably in the case of a civil disturbance such as a strike or demonstration. In either case, having a plan in place to deal with the threat before, during and after is the key to minimising operational and environmental impacts. The following potential manmade threats have been identified.

- terrorist threats/attacks,
- onsite presence or use of unauthorised weapons,
- bomb threats,

- vandalism,
- sabotage,
- civil disturbance (strikes or demonstrations)
- theft of vehicles, equipment, materials, explosives, or doré bullion.

While manmade threats are not predictable and are not always preventable, the consequence of a manmade threats/actions may potentially contribute to the initiation of one or more of the major accident scenarios identified in Sections Potential Cyanide Release through Power and/or Other Utility Outages. Project plans and SOPs established for the detection or prevention of manmade threats include:

- Public Consultation and Disclosure Plan;
- MP-04, "Management of Environmental and Social Complaints and Information Requests";
- MP-08, "Surveillance Inspection";
- EM-06, "Facility Evacuation and Evacuation Accounting Procedures";
- EM-07, "Site Security";
- EM-13, "Emergency Use of Force"
- EM-14, "Emergency Site Access Plan (Aerial and Terrestrial)"

As previously noted, it is the responsibility of the emergency response organisation, during and following a manmade threat or terrorist action, to assess if any of the other major accident scenarios noted in Sections Potential Cyanide Release through Power and/or Other Utility Outages (or other detrimental consequences) may have been precipitated, and to take appropriate response actions. See Section Workplace Violence/Terrorism for further guidance.

3.5 Environmental Conditions Compounding Emergency Scenarios

The magnitude of an emergency may be compounded by certain environmental conditions that can be measured or predicted ahead of time. The following sections provide guidance on environmental conditions that will be monitored in order to provide valuable information during an emergency.

Typical Wind Directions

During any hazardous material spill, fire, and/or explosion, releases to the air are likely. Therefore, it is important to understand prevailing wind directions as well as real-time wind directions and velocities, as this information is critical in determining exposure pathways and making evacuation decisions. Hazardous materials (HAZMAT) response team and the fire/rescue brigade (see Sections Fire Brigade and HAZMAT Spill Response Team) shall be equipped with hand-held wind direction/velocity meters and shall be trained in the general requirements of standard operating procedures TF-07, "TMF Air Monitoring/Meteorological Facility Operation", which includes basic information about prevailing wind patterns at the site, provide the detailed procedures for collecting, analysing, and utilising ambient air monitoring information. This information shall be made available to emergency response personnel during any emergency in which air emissions are likely.

In addition, information shall be maintained on the predicted or actual location of employees, visitors, and contractors on the site, as well as those populations off-site that are within reasonable exposure pathways in any releases to ambient air.

Nearby Surface Waters

Hazardous material spill releases typically present a potential impact to surface water and associated drainages. It is therefore important to understand the location, flow direction, and general hydrological characteristics of local water bodies in determining exposure pathways and making appropriate emergency response decisions. WT-02, "Management of Meteorological, Flow, and Environmental Quality Data", the RMGC *Stream Flow Measurement Process Operation Manual*; the RMGC *Project Meteorological Station Operation Manual*; and the current release of the *Roşia Montană Environmental Database* provide the detailed procedures for monitoring, collecting, and analysing surface water flow information over the life of the mining operation. This information will be summarised in training materials provided to emergency response personnel so that they will understand waterway locations and flow characteristics and respond appropriately during emergencies in which surface waters are potentially threatened.

In addition, training information shall include the predicted or actual location of employees, visitors, and contractors on the site, as well as the residential areas of Abrud, the village of Roşia Montană, and other habitations maintained in the protected areas of the Project or nearby that are within exposure pathways involving potential releases to surface waters.

3.6 Emergency Incident Classification

Emergency Incident Classification – Discussion of Needs

In an emergency situation, it is important to immediately recognise the result of the impact so that appropriate levels of response can be implemented. For example, although an onsite fuel spill captured by a secondary containment may be significant, this type of incident demands a totally different response than would a transportation emergency involving a spill of sodium cyanide briquettes and therefore potentially threatens human health and the environment outside the Project boundary. It is therefore important during the initial response to an emergency to be able to rapidly classify the situations so that all emergency response personnel subsequently contacted understand the potential nature and extent of the emergency and the full range of response personnel, qualifications, and equipment that will be required.

The incident classification system described in the paragraphs Level I Incidents through Level IV Emergency Incidents is designed to quickly communicate the required level of response to emergency responders and other stakeholders. These classifications should correspond to similar incident classification levels that are included in the various community emergency plans; RMGC will negotiate with the responsible organisations to ensure that such correspondence exists.

As soon as possible after initially responding to an emergency, the incident classification shall be made as quickly as possible by the first responder(s) to the incidents or by those personnel most familiar with what has happened in discussions with first responders and/or the Incident Commander. Classifications and subsequent actions may be revised with the concurrence of the Incident Commander as warranted based on new or revised information.

Briefly stated, incidents will be categorised in increasing levels of seriousness or required response activity as follows:

- **LEVEL I** – *no offsite impacts, can be managed by onsite personnel*, and no firemen, HAZMAT, or first aid/medical team resources are required.
- **LEVEL II** – no offsite impacts, but the assistance of the firemen, HAZMAT, or first aid/medical team resources will be required by onsite personnel.
- **LEVEL III** – no offsite impacts; however, assistance by the firemen, HAZMAT, or first aid/medical team resources will be required by onsite personnel, and evacuation of employees, contractors, and/or visitors is required.
- **LEVEL IV** – known or potential offsite impacts exist that present threats to human health and the environment such that the requirements of this Plan and affected community emergency plans must be co-operatively implemented.

These levels are described in greater detail in Sections Level I Incidents through Level IV Emergency Incidents; the organisational responsibilities of the various response teams and emergency personnel noted therein are discussed further in Section 4.

Level I Incidents

Level I incidents can be effectively managed by trained, first response personnel within the confines of the Project boundary without the need for emergency responses on the part of the Fire Brigade, HAZMAT Team, Medical Team, or emergency response contractors.

Examples of Level I incidents may include:

- spills of chemicals, wastes, or fuels that can be effectively contained and abated with spill control kits or other immediately accessible equipment by trained employees working in or near the spill area; or
- small fires that can be extinguished with portable fire extinguisher or fire hoses by trained employees working in or near the spill area
- In both examples, it is assumed that evacuation is not required. Level I incidents still require internal notification to the Emergency Co-ordinator, Health and Safety Manager, and the Manager, Environmental Management (Environmental Manager) and may require reporting to external regulatory agencies. Once the emergency situation is under control, cleanup or other final action for of Level I incidents may require outside resources (such as contractors and/or specialised equipment).

Level II Emergency Incidents

Level II incidents differ from Level I incident in that in addition to first response personnel, fire brigade, HAZMAT Team, Medical Team, or emergency response contractors are called to the incident site, even if it is later determined that such response may have been unnecessary. Examples of Level II incidents include:

- spills of chemicals, wastes streams, or fuels that required the assistance of the HAZMAT team and specialised equipment or supplies in order to effectively contain or abate the release;
- fires too large to be quickly extinguished or that involved hazardous materials, and therefore a response from the fire brigade;

- serious medical emergencies requiring more than first aid and therefore require Medical Team support;

In all of these examples, it is assumed that evacuation is not required.

- The Emergency Co-ordinator will typically appoint an Incident Commander for Level II incidents, which will still require internal notification to the Emergency Co-ordinator, Health and Safety Manager, and Environmental Manager and may require reporting to external regulatory agencies. Once the emergency situation is under control, cleanup or other final action for of Level II incidents may also require external resources.

Level III Emergency Incidents

Level III incidents differ from Level I and II incidents in that in addition to response from the fire brigade, HAZMAT Team, Medical Team, or emergency response contractors some level of evacuation of employees, visitors, and/or contractors is required. Examples of Level III incidents would include:

- spills of chemicals, wastes streams, or fuels that required the assistance of the HAZMAT team and specialised equipment or supplies in order to effectively contain or abate the release and that also required evacuation of personnel;
- fires too large to be quickly extinguished or that involved hazardous materials, and therefore a response from the fire brigade and that required evacuation of personnel;
- any situation that requires evacuation of one or more areas of the facility.

The Emergency Co-ordinator will always appoint an Incident Commander to manage the resolution of Level III incidents, which will require internal notification to the Managing Director, Emergency Co-ordinator, Health and Safety Manager, Environmental Manager and the Directors of Community and Government Relations. Level III incidents are likely to require reporting to external regulatory agencies. Once the emergency situation is under control, cleanup or other final action for of Level III incidents may also require external resources.

Level IV Emergency Incidents

Level IV incidents presents a tangible threat to human health or the environment beyond the Project boundary such that this *Plan* will be implemented in co-ordinator with the emergency plan or plans from the affected community or communities. community emergency plan is also put into effect, which will require close co-ordination between facility and community emergency response actions. Examples of Level IV incidents could include:

- spills of materials, equipment, chemicals, or fuels in transit to the Project site;
- major fires or explosions that cannot be contained or controlled with only onsite resources, and require additional emergency response resources from the local community; or
- any situation that requires evacuation of one or more residents outside the Project boundary or with habitations within the protected areas of the Project.

The Emergency Co-ordinator will always appoint (or serve as) an Incident Commander to manage the resolution of Level IV incidents, which will require internal notification to the Managing Director, Emergency Co-ordinator, Health and Safety Manager, Environmental Manager, and the Directors of Community and Government Relations. Level IV incidents

will always require reporting to external regulatory agencies. Once the emergency situation is under control, cleanup or other final action for of Level IV incidents may also require external resources.

4.1 Emergency Co-ordinator

General Responsibilities and Qualification Requirements:

The Emergency Co-ordinator is a key RMGC management representative, responsible to RMGC's Managing Director for ensuring that RMGC's emergency response organisation has the proper staffing, training, equipment, and other resources to effectively respond to, control, and recover from all plausible emergency situations occurring at the Project site, or, where shipment of project materiel or equipment is involved, the transportation corridors to the site. One or more alternates shall also be designated so that the Emergency Co-ordinator function is staffed at all times, over all phases of the Project.

The Emergency Co-ordinator shall:

- Ensure that emergency response teams (i.e., the fire brigade as well as HAZMAT and medical response teams) are in place for each operating shift and that all emergency response team members have received appropriate training.
- Work with the emergency response teams to ensure that appropriate inventories of response equipment is available at key locations as well as in RMGC and contractor vehicles.
- Periodically conduct emergency response exercises periodically to test the performance of the emergency response teams and all involved employees, including evacuation drills. These exercises and drills shall also include representative community emergency response organisations, consistent with the requirements of applicable community emergency plans. The scope and frequency of these drills is discussed further in Section 16.0 and in SOPs EM-02, "Emergency Response Preparedness" and HS-17, "Employee Safety Training, Drills, and Meetings."
- Ensure that this Plan is reviewed and approved on at least an annual basis and after each emergency incident to ensure that it is appropriate for the current circumstances of the Project and is well co-ordinated with applicable community emergency plans (note that the minimum contact information and co-ordination requirements associated with all identified community emergency plans is summarised in Table 5.1).
- Maintain a current list of all externally distributed printed copies of the Plan, as noted on page (xii).

The Emergency Co-ordinator and all designated alternates must be trained and familiar with:

- the entire contents of this *Plan*;
- all emergency preparedness and response SOPs cited herein;
- the location and capabilities of all emergency response equipment and other RMGC equipment (e.g., dozers, backhoes, trucks) that may be required during an emergency;
- all hazardous materials, chemicals, wastes on-site and their locations;
- the overall layout and routine operations of the process plant, ancillary facilities, and construction or excavation operations;
- the emergency response teams, team members, and capabilities;
- maintenance or operations personnel who know the locations of all utility shut-offs and process shutdown functions; and

- the overall emergency response capabilities of commercial contractors as well as local, regional, and national governmental emergency response organisations.

It is important for the Emergency Co-ordinator to designate an independent “Incident Commander” for the onsite management of major (Level III or IV) emergencies. These typically require a greater level of management engagement and would therefore reduce or impair the Emergency Co-ordinator’s ability or availability to properly respond to and manage other potential emergencies in other site or transportation corridor locations. The Emergency Co-ordinator may assume the Incident Commander function for minor (Level I or II) emergencies provided that they are capable of being resolved expeditiously. The Emergency Co-ordinator is specifically delegated the authority for selecting and assigning properly qualified and trained personnel or contractors to serve as Incident Commanders. The Emergency Co-ordinator shall maintain a list of all trained Incident Commanders; the list shall be reviewed and updated on at least an annual basis.

The Emergency Co-ordinator is also responsible, with the assistance of the Communications Co-ordinator, for establishing and maintaining effective working relationships with community emergency response organisations (from communities near the mine site as well as communities along major transportation corridors), for maintaining copies of applicable community emergency response plans, for co-ordinating response activities in conjunction with community emergency plans when circumstances so require, and for the periodic review and update of this Plan to ensuring its continued suitability and effectiveness with respect to changing community emergency plan needs. Table 5.1 contains minimum contact information and co-ordination requirements associated with all currently identified community emergency plans.

Responsibilities During an Emergency:

When an emergency situation occurs, the “first responder” (i.e., the RMGC or contractor employee that first observes or is notified about an emergency), will notify RMGC Security or contact the Emergency Co-ordinator directly and provide basic information.. The Emergency Co-ordinator shall:

- Ensure that RMGC Security is notified in order that they may log the details of incident including date, times, basic information about the emergency, and the name of the first responder; incident logs shall be retained in the ESMS records;
- Rapidly gather information from the first responder and other sources as necessary to assess the Level and type of emergency, sound all required alarms as warranted by the situation, determine what resources are likely to be needed;
- Notify the appropriate emergency response team(s) for mobilisation to the emergency site (i.e., the fire brigade, HAZMAT team, and/or medical team);
- Determine if long-term Incident Commander support will be required and notify qualified staff as appropriate (all Level III or IV emergencies, Level II at the Emergency Co-ordinator’s discretion);
- Mobilise to the emergency site, co-ordinate with security to establish site access controls/barriers, initiate any required evacuations and remain on site until the appropriate emergency response team and/or Incident Commander arrives; if the Emergency Co-ordinator is also serving as the Incident Commander, they shall perform the specific functions described in Section 4.2;

- Liaise as necessary with company officials; the communications co-ordinator; the Manager, Environmental Management; and the Health and Safety Manager. For a Level III or IV emergency, the Emergency Co-ordinator should continue provide liaison support in order to minimise interference with the onsite emergency response duties of the Incident Commander.
- Provide support to the Communications Co-ordinator (if required) in the preparation of fact sheets, press releases, and other public statements concerning the emergency.
- Provide information as necessary to ensure that the Manager, Environmental Management and the Health and Safety Manager have the information necessary to support any specific regulatory reporting requirements.

In the event that a Level IV emergency is declared, the Emergency Co-ordinator shall work with the Incident Commander, the Communications Co-ordinator and affected community emergency response organisations to determine if external evacuations are necessary, and to initiate such evacuations when required.

- The Emergency Co-ordinator shall support the Incident Commander in locating and arranging for the use of emergency response equipment, either on-site or off-site, and any on-site equipment that may be needed to facilitate a timely and effective response to the emergency.
- The Emergency Co-ordinator shall instruct site security as to which external emergency response organisations, personnel, or equipment will be allowed on site and to whom they shall report. All non-RMGC or non-RMGC contractor personnel shall be escorted at all times.
- Once the emergency is determined to be stabilised or resolved, the Emergency Co-ordinator shall:
 - ensure that the incident is documented and thoroughly investigated in accordance with EM-01, “Emergency Incident Investigation, Reporting, and Recordkeeping”;
 - initiate formal corrective and preventive action processes in accordance with MP-10, “Corrective and Preventive Action for Environmental and Social Nonconformances”; depending on circumstances, such actions may include additional cleanup or remediation, refinement of the requirements of this Plan or its supporting procedures, training or re-training of personnel, engineered improvements, or other appropriate actions;
 - With the assistance of the Communications Co-ordinator, conduct incident closeout communications with any community emergency response personnel or public meetings as required by the *Public Consultation and Disclosure Plan*; and
 - Ensure that all emergency equipment is cleaned or replaced, and is fit for use before any operations that may have been halted by the incident are resumed.

4.2 Incident Commander Qualifications and Selection

General Responsibilities and Qualification Requirements:

As indicated above, Incident Commanders are operational or managerial staff members selected by the Emergency Co-ordinator in the initial phase of each emergency based upon their experience with the affected operational area and the appropriateness of their individual qualifications.² All potential Incident Commander candidates shall have completed appropriate formal training, but assignments may vary depending on the type of emergency. For example, a fire will require an Incident Commander with fire-fighting training, while a medical emergency may require an Incident Commander with appropriate first aid and medical emergency response training. As previously noted, a list of employees who have received training as Incident Commanders shall be maintained by the Emergency Co-ordinator, and reviewed for currency on at least an annual basis.

Incident Commander Responsibilities

When a Level II or IV emergency situation occurs (or for Level I or II emergencies that the Emergency Co-ordinator is unable to cover), the Emergency Co-ordinator will select an appropriately qualified Incident Commander. The selected Incident Commander shall confirm his/her ability of taking the Incident Commander role. Upon agreeing to the assignment, the Incident Commander shall be advised their immediate manager or supervisor and proceed to the emergency site as soon as possible. The Incident Commander will then take the following steps:

- Contact the first responder and quickly assess the type of emergency, what resources are likely to be needed, and if additional emergency response team(s) or response personnel are required. The Incident Commander shall also, in communication with the Emergency Co-ordinator, confirm that the general classification of the incident is appropriate (see Section 3.6).
- Confirm that the appropriate alarm(s) have been activated and activate additional alarm systems if necessary.
- Physically direct the actions of all emergency personnel, and ensure appropriate communication and co-ordination between and among RMGC emergency response teams and any external community emergency response organisations (e.g., firemen, police, ambulance services) as they arrive on the scene.
- Evaluate the risk that fires, explosions, and hazardous chemical/waste releases may occur, recur, or spread, and direct emergency responders and/or employees to cease operations or move as necessary to protect their safety.
- If a particular facility or process areas ceases operations in response to fire, explosion, or hazardous waste release, ensure that monitoring for leaks, pressure build-ups, gas generation, or ruptures in valves, pipes, or other equipment is initiated.

² Note: Managers or supervisors of designated Incident Commanders shall provide trained backup personnel, as appropriate, who are capable of managing the Incident Commander(s)' normal work assignments in the event that they are called to respond to an emergency.

- The Incident Commander shall typically initiate facility evacuations, including making the determination if a local area evacuation within the facility, a Project-wide evacuation, or evacuation of off-site populations is necessary according to EM-06, “Facility Evacuation and Evacuation Accounting Procedures.”
- In the event that a Level IV emergency is declared, the Incident Commander shall work with the Emergency Co-ordinator, the Communications Team, and off-site emergency response organisations to determine if external evacuations are necessary.
- The Incident Commander shall decide which emergency response equipment, either on-site or off-site, and any on-site mining or operating equipment is needed to appropriately respond to the emergency. The Incident Commander shall direct use of the equipment by the emergency responders.
- The Incident Commander and emergency responders are responsible only for response during the emergency, i.e. stopping and containing spills, medical services, fire fighting, or rescue operations. Cleanup and decontamination operations after the emergency has been declared over is the responsibility of the Emergency Co-ordinator and other delegated departments, organisations, or contractors.
- Remain in control of the site until the emergency is determined to be contained, e.g., medical responses to any injured personnel are complete, fires are extinguished, spills are contained, other emergency situations are under full control, and the chance of recurrence is deemed minimal. At this point, primary responsibility for the incident can be turned back over to the Emergency Co-ordinator.
- Once the emergency is declared over by the Incident Commander, the Incident Commander shall provide support to the Emergency Co-ordinator as necessary to properly investigate and evaluate the incident and undertake appropriate corrective/preventive action.

4.3 First Responders and Emergency Response Teams

As noted in Figure 4-1, RMGC will maintain one or more Firemen, and HAZMAT (spill response) and medical teams. The following subsections provide a description of the roles and responsibilities of employees and emergency responders.

First Responders, RMGC Security, and other RMGC or Contractor Employees

Any RMGC or contractor employee that observes or is advised (from non-RMGC sources) that a potential emergency exist is considered the “first responder.” The primary responsibility of all first responders is to immediately summon help by dialling RMGC Security (Extension [TBD] on any facility phone, or by cell phone at [TBD], or by two-way radio on Channel [TBD]. Security will immediately contact the Emergency Co-ordinator; the employee should then call or report directly to his/her supervisor. It is imperative that **employees that are not properly trained shall not attempt to intervene in or contain an emergency situation. After reporting the incident, first responders should**

- remain at their place of work until instructed otherwise or by alarm communications;
- do **not** approach the emergency site unless directed to do so;
- be prepared to evacuate and follow evacuation procedures as provided in SOP EM-06; and

- provide assistance only when directed to do so by the Emergency Co-ordinator, Incident Commander, or other emergency responders.

The actions of those employees who first encounter an emergency situation may well determine the severity of the impact on human health and the environment. Therefore, it is critical that all employees understand the basic requirements for response to emergency situations. General guidance for first responders is provided in EM-02, "Emergency Response Preparedness" and EM-06, "Facility Evacuation and Evacuation Accounting Procedures." In addition, all RMGC employees shall be trained in the occupational health and safety procedures established by the RMGC *Occupational Health and Safety Plan*; many of which may require consideration in emergency situations. Depending on individual job assignments, these procedures may include:

- HS-03, "First Aid /Medical Attention";
- HS-05, "Respiratory Protection";
- HS-07, "Life Safety Evacuation and Egress";
- HS-08, "Equipment Lockout/Tagout";
- HS-09, "Personal Protective Equipment";
- HS-11, "Confined Space Entry";
- HS-13, "Working Surfaces, Ladders, Scaffolding"; and
- HS-14, "Fall Protection."

Firemen

RMGC firemen shall be available on site during all shifts and all phases of the Project, in order to respond rapidly to any situation involving fires or explosions. Personnel trained to serve as a fireman may also be trained as members of the HAZMAT team and/or the medical team and therefore may have several responsibilities during an emergency situation. Firemen shall receive all of the basic health and safety training required for all RMGC employees, as well as speciality training in firefighting methods and equipment use. Firemen shall also participate in regular firefighting drills, as directed by the Emergency Co-ordinator or the Health and Safety Manager, and shall perform periodic fire-fighting equipment inspections and tests per EM-03, "Emergency Response Equipment - Maintenance, Inspections, and Testing" and HS-15, "Fire Protection."

HAZMAT Spill Response Team

HAZMAT spill response team members shall be available on site during all shifts and during all phases of the Project in order to effectively respond to emergencies involving spills or releases of hazardous chemicals, substances, or wastes. Personnel trained to be on the HAZMAT team may also be trained as members of the fire brigade, and/or the medical team and therefore may have several responsibilities during an emergency situation.

HAZMAT team members shall receive all of the basic health and safety training required for all RMGC employees, as well as speciality training in firefighting methods and equipment use. HAZMAT team members shall also participate in regular spill response drills, as directed by the Emergency Co-ordinator or the Health and Safety Manager, and shall perform periodic HAZMAT spill response equipment inspections and tests per EM-03,

“Emergency Response Equipment - Maintenance, Inspections, and Testing” and HS-15, “Fire Protection.”

Medical Emergency Response Team

Medical team members shall be available on site to respond to emergencies involving injuries, illness, or death of employees, visitors, or contractors on the site. It is understood that persons trained to be on the medical team may also be trained as members of the fire brigade, and/or the HAZMAT team and therefore may have several responsibilities during an emergency situation. Medical team members shall receive all of the basic health and safety training required for all RMGC employees, as well as more advanced medical emergency training to enable a proper response to medical trauma and other life-threatening situations. Medical team members shall also participate in regular spill response drills, as directed by the Emergency Co-ordinator or the Health and Safety Manager, and shall perform periodic medical response equipment inspections and tests per EM-03, “Emergency Response Equipment - Maintenance, Inspections, and Testing.”

Communications Co-ordinator

The Communications Co-ordinator reports to RMGC’s Director, Community Relations, and shall assist the Emergency Co-ordinator and RMGC’s response teams in the response to and resolution of all Level III and IV emergencies (which by definition have potential offsite impacts), consistent with the requirements of the RMGC *Public Communication and Disclosure Plan*. Key responsibilities include

- Preparation and update of incident-specific fact sheets, with the assistance of the Emergency Co-ordinator and other Project staff, that provide general information about the incident that shall be consistently used as the basis for communicating with external stakeholders, the public, and the media;
- Assisting the Emergency Co-ordinator in communicating evacuation needs to affected stakeholders or the public;
- Serving as the primary point of contact in communications with external regulatory agencies, emergency response organisations, employee families and relatives, the media, and other interested parties; all such communications shall be documented and retained in the Project ESMS records.

The Communications Co-ordinator shall assist the Emergency Co-ordinator in conducting incident closeout communications with any community emergency response personnel or public meetings as required by the *Public Consultation and Disclosure Plan*.

More detailed information on emergency communications is presented in Sections 5.2 and 8.0 of this *Plan*.

4.4 Other Departmental Responsibilities

During emergency situations, other RMGC operational departments may be called upon to support the emergency response effort. While the nature and extent of this support will vary greatly depending on the emergency situation, the following general guidance is provided for various keep departments.

Security

RMGC's Security Department will play a key role in the management of all onsite emergency situations. Typical responsibilities include:

- Responding to all emergency calls to Extension **[TBD]** as well as all direct cell phone and two-way radio contacts. The security staff member taking the call will immediately contact the Emergency Co-ordinator and document the information provided on Form 1.0
- Security shall assist the Emergency Co-ordinator and/or Incident Commander by establishing a positive site control perimeter; this may be accomplished by locking gates or doors; by setting up temporary barriers, flashing lights, or placards; or by other appropriate means.
- Individuals located inside the security perimeter will be informed of the emergency situation and evacuated to a safe location.
- Security officers will control ingress and egress from the emergency site as directed by the Emergency Co-ordinator and/or the Incident Commander; a log will be maintained documenting all personnel entering or leaving the site.
- Security officers will assist in evacuation and crowd control as necessary to ensure that any required evacuation is conducted in an orderly fashion; personnel accounting in evaluation shall comply with procedure EM-06,
- Security Officers and Receptionists will assist evacuation and crowd control to ensure that the evacuation is conducted in an orderly fashion as per EM-06.

Form 1.0 First Responder Emergency Reporting Log

(To be completed by Security upon receiving first notification of emergency.)

Person completing form: _____	Date: _____
Name of caller (first responder): _____	Time: _____
Location of caller: _____	Phone #: _____
Location of emergency: _____	
What type of emergency (check all that apply):	
Fire: <input type="checkbox"/> Explosion: <input type="checkbox"/> HAZMAT spill: <input type="checkbox"/> Cyanide: <input type="checkbox"/> Medical: <input type="checkbox"/>	
Tailings Pond Release: <input type="checkbox"/> Fuel spill: <input type="checkbox"/> Traffic/Mobile Equip. Accident: <input type="checkbox"/>	
Mine Pit Failure: <input type="checkbox"/> Waste Rock: <input type="checkbox"/> Waste Rock Stockpile Failure: <input type="checkbox"/>	
Other (describe): _____	
Are any personnel injured? _____ How many? _____	
Nature of the injuries: _____	
Nature of spills/releases: _____	
Material(s) spilled/released: _____ Quantity: _____	
Is the spill/release off-site?: _____ Where is it located? _____	
Other information: _____	
Instruct caller to: Keep away from hazards ,and avoid contact with hazardous materials. Seal off the area and alert others of possible dangers. Look for injured persons. Take time to identify existing and potential hazards. Remain in a safe location where he/she can provide additional information to the emergency responders once they arrive.	
<ul style="list-style-type: none"> ▪ Be prepared to receive and follow instructions from emergency responders. 	
Contact Emergency Co-ordinator	Name/Time Contacted:
Instructions from Emergency Co-	

ordinator:	
Alarms:	
ER Teams:	
Evacuations:	
Other:	

-
- Security will assist in accounting for the personnel involved in the evacuation as per EM-06, and will lead any required search for missing personnel or equipment.
- Security officers will provide escorts to regulatory agency staff or other outside parties should visits to the emergency site be required

Maintenance

The Maintenance Department may be asked to play a role in emergency situations. Typical responsibilities include:

- Shut off gas, water and electricity
 - The Maintenance Department has provided the means to locate, access and secure all main control devices for utilities such as gas, water and electrical service. Maps showing locations of all closure devices shall be available and current.
- Communication with utility suppliers
 - Emergency events causing power disconnects, downed power lines, broken gas mains, damaged sewer lines, or broken water systems must be quickly reported by the Maintenance Department to the utility company providing the service.
 - The Maintenance Department shall maintain a list of utility suppliers with pertinent names and phone numbers.
- Inspect/approve building occupancy
 - Resources are available within the Maintenance Department to make the initial inspection of buildings and structures, and to ascertain the safety of continued occupancy.
- Provide auxiliary utilities/facilities
 - Various resources will be made available to support the needs of personnel and business groups during an emergency such as:
 - auxiliary generators
 - emergency gas and water supply
 - telecommunications/pa/video/fax
 - restroom facilities
 - portable lighting
 - copy machines

- other
- Production Support
 - Maintenance will aid recovery of production operations in such areas as reviewing and correcting and problems with electrical power, HVAC, gas, water, communications, cranes, walls, roofs, lighting, floors, sewers, or windows. Outside contractor support may also be scheduled to assist in recovery.
- Secure Area
 - To keep all unauthorised personnel out of the affected area, and to isolate hazards or sources of injury, Maintenance will secure the scene. Only functionally required service personnel and emergency personnel will be allowed access.
- Construct as Required
 - Maintenance will provide construction services as determined by the Emergency Co-ordinator or Incident Commander, consistent with the availability of materials.
- Determine Resources for Repair
 - Maintenance will determine the equipment, materials, personnel and actions necessary to restore full operational status to affected areas.
 - Maintenance will systematically review existing equipment, materials and personnel, and determine the additional resources necessary to accomplish the task.
 - Through co-ordination with key internal departments and external vendors, the availability of outside resources will be determined.
- Manage Repairs
 - Maintenance will co-ordinate action plans with the Emergency Co-ordinator and initiate the required recovery actions.
 - Auxiliary utilities (air, power, and light) will be provided.
 - Maintenance will manage subcontractors, material resources and labour through co-ordination between Maintenance personnel, other departments, and outside vendors of equipment and services.
 - Repairs will be managed by exercising control over methods, personnel, supplies, approach and timing of repairs to facilities and/or equipment.

Operations

The Operations Department may be asked to play a role in emergency situations. Typical responsibilities include:

- Shut down process operations according to pre-determined shutdown procedures.
- Shut off gas, water and electricity
 - In addition to the Maintenance Department, Operations has the means to locate, access and secure all main control devices for utilities such as gas,

water and electrical service. Maps showing locations of all closure devices shall be available and current.

Provide auxiliary emergency response equipment

- Various resources will be made available to support the needs of personnel and business groups during an emergency such as:
 - mobile equipment
 - pumps
 - telecommunications/pa/video/fax
 - restroom facilities
 - portable lighting
 - other
- Bringing the process plant, TMF, or other Project operations back on line according to pre-determined procedures.
- Perform and/or direct cleanup activities.

Environmental

The Environmental Department plays a key role in all emergency situations. Typical responsibilities include:

- Assist Emergency Co-ordinator in determining nature and scope of incident
 - The Environmental Department will evaluate the nature and scope of the emergency situation and its ramifications, and will determine the range of possible adverse consequences to human health and the environment. The emphasis is on prevention of further damage to the environment.
 - The Environmental Department will immediately act to mitigate existing adverse impacts, and act to develop control strategies and tactics to prevent or reduce the risk of additional damage to the environment.
- Provide immediate technical field support
 - The Environmental Department will provide technical and regulatory evaluation and interpretation of available information to the Emergency Co-ordinator and Incident Commander to define the extent of the problem, and to assist the emergency response teams in mounting an effective response to the situation.
 - The Environmental Department will provide the public communications co-ordinator with technical and layperson interpretations of information for use in advising senior management, preparing media statements, and other community relations activities.
- RMGC management notification
 - The Environmental Department will immediately notify the RMGC Management Director if reportable environmental incidents occur.
- External regulatory notification

- The release of hazardous wastes exceeding certain thresholds established by law requires the notification of various regulatory agencies in a timely manner. The Environmental Department will initiate and conduct this notification procedure. Information should be gathered concerning the emergency using the Emergency Response Incident Report (see Form 2.0). This communication to the agency shall be documented on Notification Report (see Form 3.0).
- The Environmental Department will establish liaison with relevant environmental agencies to ensure that the situation is being managed in an expeditious and appropriate manner consistent with regulatory guidelines.
- Collect environmental samples
 - The Environmental Department will direct the collection of samples of uncontained materials that could pose a threat to human health or the environment.
 - Basic analysis of the samples will be conducted by an approved laboratory. The Environmental Department will arrange for the transportation of environmental samples to such a laboratory and be responsible for sample QA/QC.
- Evaluate analytical lab results
 - Information received from initial tests and subsequent laboratory analysis will be used to help determine appropriate control measures and corrective actions.
- Evaluate potential environmental impacts
 - In the event of a release of hazardous wastes which could potentially impact the health and safety of employees, the surrounding community, or the environment, the Environmental Department will evaluate the potential impacts of such situations and will devise control measures to avoid or minimise their consequences.
- Support control activities
 - The Environmental Department will provide technical support and direction to the Emergency Co-ordinator and Incident Commander, environmental contractors, and other support groups conducting any required environmental control, clean-up or remediation activities.
- Corrective actions (environmental and operational)
 - The Environmental Department will guide all environmental corrective actions in accordance with MP-10, "Corrective and Preventive Action for Environmental and Social Management System Nonconformances" in order to ensure a timely, safe and effective resolution of the emergency situation, including any subsequent environmental compliance or remediation activity.

The Environmental Department will work in conjunction with other division departments and regulatory agencies in developing, implementing and reviewing the effectiveness of corrective action strategies designed to prevent a recurrence of the subject situation.

Form 2.0. Emergency Release Incident Report

(To be completed by Environmental Department)

Person completing form: _____	Date: _____
Time of release: _____	Until _____
From _____	_____
Location of release: _____	
Release to: air: <input type="checkbox"/> surface water: <input type="checkbox"/> soil: <input type="checkbox"/> Secondary Containment System: <input type="checkbox"/>	
stormdrain: <input type="checkbox"/> sewer system: <input type="checkbox"/> other: <input type="checkbox"/> describe: _____	
What other types of emergencies involved (check all that apply):	
Fire: <input type="checkbox"/> Explosion: <input type="checkbox"/> Hazmat spill: <input type="checkbox"/> Cyanide: <input type="checkbox"/> Medical: <input type="checkbox"/>	
Tailings Pond Release: <input type="checkbox"/> Fuel spill: <input type="checkbox"/> Traffic/Mobile Equip. Accident: <input type="checkbox"/>	
Mine Pit Failure: <input type="checkbox"/> Waste Rock <input type="checkbox"/> Waste Rock Stockpile Failure: <input type="checkbox"/>	
Other (describe): _____	
Are there injured persons? _____	How many? _____
Nature of spills/releases: _____	
Material(s) spilled/released: _____	Quantity: _____
Is the spill/release going off-site: _____	Where to? _____
Other information: _____	
Estimated wind speed: _____	Direction: _____
Cause of spill: _____	
Clean-up actions taken: _____	

Name of recipient:	Title of recipient:
Signature:	

File along with associated Form 2 – Emergency Release Incident Report.

Health and Safety

The Health and Safety Department will typically be responsible for :

- Incident Investigation
 - In any emergency situation as deemed necessary by the Emergency Co-ordinator, the Safety Department would investigate the incident to determine whether safety hazards were present.
 - The Health and Safety Department would then provide recommendations for the protection of personnel from the safety hazard, and for the removal of the hazard.
 - The Health and Safety Department would determine whether unsafe conditions or unsafe acts contributed to the incident. The Health and Safety Department would also provide advice to prevent unsafe practices from making the situation worse.
- Material Safety Data Sheets Hazard Evaluation
 - The Health and Safety Department maintains Material Safety Data Sheets on all chemicals used at RMGC on a computer database. Anyone with access to the system can call up Material Safety Data Sheets for read-only browsing.
 - Hard copies of the Material Safety Data Sheets are located in the Health and Safety Department and in all departments that use hazardous chemicals.
 - In the event of a hazardous waste spill or release, the Health and Safety Department will retrieve the appropriate Material Safety Data Sheets, and will interpret the data as it relates to safety, health and the environment.
 - The Health and Safety Department will evaluate the hazardous waste spill, leak or release for its potential to produce harm to surrounding employees and will determine whether evacuation of personnel is necessary.
 - The Health and Safety Department will conduct air monitoring of contaminants and determine the proper personal protective equipment required for emergency personnel remaining at the scene of the release.
- Hazard Communication
 - The Health and Safety Department will notify all employees and other affected persons of the hazards and potential hazards resulting from the emergency situation.
- Personal Protective Equipment
 - The Health and Safety Department would advise emergency response personnel of the personal protective equipment needed to clean up the chemical spill, and of other clean-up procedure requirements.
- Air sampling

- In the event of a hazardous waste spill or release, the Health and Safety Department would monitor the airborne concentrations and make recommendations to evacuate the area.
- Support for compliance with Health and Safety standard operating procedures
 - During an emergency, the Health and Safety Department will provide support so that all persons involved in the emergency comply with applicable health and safety standard operating procedures including:
 - EM-06, “Facility Evacuation and Evacuation Accounting Procedures”;
 - HS-05, “Respiratory Protection”;
 - HS-07, “Life Safety Evacuation and Egress”;
 - HS-08, “Equipment Lockout/Tagout”;
 - HS-09, “Personal Protective Equipment”;
 - HS-11, “Confined Space Entry”;
 - HS-13, “Working Surfaces, Ladders, Scaffolding”; and
 - HS-14, “Fall Protection.”

5 Co-Ordination with External Emergency Response

5.1 External Emergency Response Plan(s)

This *Emergency Preparedness and Spill Contingency Plan* is established to provide a comprehensive guidance document describing the measures RMGC will use to prevent, prepare for, and implement in response to emergency situations that could potentially occur on the site. It should be noted that the purpose of this *Plan* is to provide guidance to employees at the Roşia Montană Project. It is assumed that there is also a community emergency plan that is designed to work in conjunction with and in parallel to this *Emergency Plan*. The community emergency plan is designed to provide guidance for community officials, emergency response personnel, and nearby businesses and residents with guidance on emergency preparedness and response in the event of an emergency at the Project site that could impact the environment or off site populations as well as other potential emergencies the community might face.

Table 5-1 is presented to provide a cross-reference guide between similar sections and guidance between the *Plan* and the community emergency plan. Table 5.2 provides a summary of all the external emergency response organisations.

Table 5-1. Interface Requirements and Communications Contact, Community Emergency Plans

Community	Applicable Community Emergency Plan Title	Community Location	Primary Communications Contact (Name/position/ phone no.)	Primary Interface Requirements with Community Emergency (summary list)
Roşia Montană		Adjacent to Project		
Abrud		Immediately downstream of Corna and Roşia Valleys		

Table 5-2. External Emergency Response Organisations and Contact Phone Numbers

Organisation	Address	Telephone
Alba County Emergency Situations Inspectorate	Strada Transilvaniei nr. 14 Bloc 11, scara 1 Alba Iulia	0258 / 811.988 0258 / 811.891
General Emergency Situations Inspectorate	19 Ceasornicului Street Sector 1, Bucharest	+40-1-232 9586/232 2008
Abrud Police Department	Piata Eroilor nr. 1 Abrud	0258/780 519 0258/780 504
Abrud Hospital	Str. Republicii nr. 13 Abrud	0258/780 614
Alba Iulia Police Inspectorate	Str. Muresanu Andrei nr. 2 Alba Iulia	0258/811 286 0258/812 204
Alba Iulia Fire Department	Str. Clujului nr. 10 Alba Iulia	0258/810 411
Alba County Hospital	Bd. Revolutiei 1989 nr. 23 Alba Iulia	0258/820 825
National Police Department	Not applicable	955
National Ambulance Centre	Not applicable	961/962
SMURD Ambulance Services	Tirgu Mures	4065 210 110
County Inspectorate for Environmental Protection	Str. Lalelelor nr. 7A 2500 Alba Iulia judetul Alba	Phone:0258/813.248 0258/813.290 Fax: 0258/816.834 0258/813.248 E-mail: apmalba@apulum.ro

5.2 External Emergency Organisations

At the time of preparation of the *Emergency Plan*, it is assumed that the local community near the Roşia Montană Project will have only limited resources available for emergency response to emergencies at the Project site. The nearest organisations include:

- Emergency Situations Inspectorate of Alba County;
- Abrud Police Department;
- Abrud Hospital;
- Alba Iulia Police Department;
- Alba Iulia Fire Department; and
- Alba Iulia Hospital.

The Emergency Situations Inspectorate of Alba County will be responsible for developing, co-ordinating, and maintaining the community emergency plan with appropriate input from RMGC. Memorandums of Understanding should be prepared with the Abrud and Alba Iulia Police and Hospitals to assist in local emergency response services to RMGC and with the Alba Iulia Fire Department.

5.3 Fire Response

The Emergency Situations Inspectorate of Alba County is staffed and equipped to provide fire-fighting services to Alba County. For example, in a Level IV incident in which local alarms must be sounded, the Fire Departments will sound the alarm in affected areas providing additional information on vehicle loudspeakers, and facilitate evacuations if required. In some instances, the Fire Departments may be asked to respond to the Project site with emergency response personnel and equipment.

The primary fire-fighting resources and equipment available include:

- [TBD - list number of fire fighters]
- [TBD - list major fire fighting equipment]

HAZMAT Spill Response

The primary HAZMAT resources and equipment available include:

- [TBD- list major HAZMAT response equipment]

Medical Response

RMGC is equipped with an ambulance. The nearest medical facility is in Abrud, and is equipped with a **[TBD– list number of beds]** hospital located at the address given in Table 5-2.

Some injuries may require treatment in Alba Iulia, which has a **[TBD– list number of beds]** bed hospital located at the address given in Table 5-2.

The hospitals are primarily staffed and equipped to provide general ambulance and medical services to Alba County. The Memorandum of Understanding with the hospital should include provisions for periodic hospital staff training on the unique human health, injuries,

and illnesses that might be expected to be encountered as result of the hazards and conditions at the Project site. These include but are not limited to:

- cyanide exposure;
- thermal burns; and
- chemical burns.

Ambulances

The facilities in Abrud will be adequate for outpatient treatment and can be reached using the site ambulance. The next nearest hospital is over 85 kilometres away in Alba Iulia; and it is likely that some emergency scenarios would require treatment in Bucharest facilities. The Mobile Emergency Service for Resuscitation and Extrication (Serviciul Mobil de Urgenta, Reanimare si Descarcerare – SMURD) provides airlift service throughout Romania and is based in Tirgu Mures. The telephone number is 4065 210 110. There is also a National hotline for ambulance dispatch at 961/962.

“On-Call” Doctors/Paramedics

In addition to the trained medical technicians on the RMGC medical team and the trained medical staff at the Alba Iulia Hospital, the following area doctors and paramedics have arrangements with RMGC for emergency response.

Doctor/Paramedic	Area of Practice/Speciality	Emergency Phone Number	Office Address
TBD			

Medical Clinics/Hospitals

In addition to the Alba Iulia Hospital, the following area hospitals and medical clinics are available in emergencies:

[TBD]

5.4 External Notification of Emergency Situations

Notification Procedures

In the event of an emergency situation, there are often notifications to off-site personnel and organisations that must be made. These notifications typically fall into three categories:

1. Notifications to regulatory agencies concerning releases to the environment or injuries to employees;
2. Notification to implement off-site emergency response actions; and
3. Notifications to local officials, media, and employee family members.

Procedures for the first two notification categories are discussed below in this section. Procedures for the third category is discussed in Section 8.0.

Certain releases to the environment and/or injuries/deaths to employees must be reported to outside regulatory agencies. Usually, these reports must be made to the regulatory agencies in an expedient manner. Therefore, it is important that such information is gathered promptly during an emergency. Typically, the Emergency Co-ordinator and Incident Commander will be responsible for gathering reportable information during an emergency. The Manager, Environmental Management shall be responsible for ensuring that reports concerning environmental releases are reported in a complete and timely manner. The Health and Safety Manager shall be responsible for ensuring that reports concerning employee injuries and/or deaths are reported in a complete and timely manner.

Government Emergency Ordinance No 78/2000, *Waste Management*^{vi} requires notification to the Local Civil Protection Command in the event of a Level IV emergency situation. It is at the discretion of the Emergency Co-ordinator and Incident Commander whether or not to report Level II or III emergencies.

Specific guidance on emergency incident investigation, reporting, and recordkeeping, including reporting to outside agencies such as the Civil Protection Command, is provided in EM-01, "Emergency Incident Investigation, Reporting and Recordkeeping."

Emergency Response Notification Procedure

The Emergency Co-ordinator notifying the appropriate emergency response organisation should ensure the following are carried out:

- Be available or have an alternate available for response to report emergencies on a 24-hour per day basis.
- Confirm the facts of the emergency by getting information from the initial observers of the emergency, first responders, the Incident Commander, or others having knowledge of the emergency. Complete the Emergency Response Incident Report (see Form 2.0 in Section 4.0).
- Make the final determination on whether the notification to off-site emergency response organisations is appropriate.
- Make the verbal reports to all appropriate outside emergency response organisations as soon as possible per this procedure.

- Ensure that the notification is properly documented on the Notification Report (see Form 3.0 in Section 4.0) and that the documents are properly filed in accordance with applicable standards.

When making an emergency response notification to an agency, be prepared to report the following:

- Name of person calling
- Phone number where you can be reached
- Location of emergency
- Company responsible for the emergency
- Company address
- Company phone number
- Date, time and duration of spills or releases
- Material spilled
- Amount spilled
- Cause of spill
- Weather conditions including wind speed and direction
- Number of injuries or fatalities
- Known or anticipated acute or chronic health risks from the released material
- Fire or explosions associated with spill
- Impacts on soil, surface water, air, etc
- Whether or not outside emergency response is needed
- Whether or not evacuations of employees or public is needed
- Status of release, i.e. has release been stopped
- Clean up actions taken or planned
- Other agencies/organisations contacted

Be sure to document:

- Name of person taking call
- Date and time of call
- The information provided during the notification

A list of outside emergency response organisations is included on Table 5-2.

6 Emergency Alarms and Communication Systems

In the event of an emergency situation at the RMGC the emergency response system would be initiated. This process involves the following steps:

- The event is observed by an individual or detected by a sensing device;
- Security is notified by dialling Extension **[TBD]** on a Project site phone, or sensing device sounds alarm;
- Security notifies Emergency Co-ordinator and other departments as deemed necessary;
- The Emergency Co-ordinator begins a log of the incident including date, times, information gathered, and persons providing information. This log shall be maintained throughout the emergency.
- The Emergency Co-ordinator shall quickly assess the type of emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident (see Section 3.6). If necessary, the Emergency Co-ordinator shall contact the individual who first observed the emergency or first responders to gather more information and provide immediate instructions.
- The Emergency Co-ordinator shall make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Security personnel shall sound the appropriate alarm as directed by the Emergency Co-ordinator.
- The Emergency Co-ordinator shall then notify the appropriate emergency response team(s) that should respond to the emergency site, e.g. the fireworkers, HAZMAT team, or medical team. At this time, the Emergency Co-ordinator should determine who should be the Incident Commander at the emergency site for all Level II, III or IV emergencies.

The following sections describe the emergency alarm and communication systems.

6.1 Internal Alarm Systems

Alarms shall be so located and of sufficient volume such that all areas of the Project, including mining areas, processing areas, storage areas, and administrative office areas will be able to hear the alarm system clearly when triggered. The alarm system will notify employees of Level II through IV emergencies, including the need for evacuations.

The Project alarm system (horn or siren) signals shall be as follows:

- A series of five-second blasts followed by a two-second pause alarm indicates that a Level II through IV emergency has been declared. Employees (except emergency response team members) should remain at their work stations and continue performing their normal routine jobs. All on-site emergency response team members should stand-by for instruction to be communicated by phone or two-way radio.
- A continuous blast of the alarm indicates a Project-wide evacuation. All employees should immediately follow pre-determined evacuation procedures per EM-06, "Facility Evacuation and Evacuation Accounting Procedures." Employees in critical operating positions, should follow pre-determined procedures for system shutdown or

await instructions. All on-site emergency response team members should report to pre-assigned emergency stations.

- A series of short one-second blasts indicates that the all-clear has been declared and the emergency situation is over. In the event of a Project-wide evacuation, employees are to remain at the pre-determined accumulation points until told to return to work per EM-06.

In addition to the Project-wide alarm, each building designed for occupation will be equipped with an individual building alarm. This alarm will be triggered locally by a first responder, the Incident Commander, or other emergency response personnel in the event of a local area evacuation is required, e.g. a fire in the building. Employees located within the building or in the area in which the alarm is sounded shall evacuate per pre-determined evacuation procedures as noted in EM-06. Local area evacuations may also be triggered by verbal instructions of supervisors, first responders, the Incident Commander, or other emergency response personnel.

Individual building alarms and fire/tuck ambulance alarms will be selected that sound distinctly different from the Project-wide alarm.

6.2 Internal Communication Systems

Normal Project site communications rely on plant telephones, portable radios, cellular telephones and pagers. These systems are also available for use during emergency situations at all normally occupied areas of the site. Also, in the event of an emergency, all emergency response lockers, fire trucks, and ambulances will be equipped with a bullhorn to enhance verbal communication. All major buildings will be equipped with loudspeaker systems to allow for verbal communications during emergencies. All emergency response team members, Incident Commander-trained personnel, the primary Emergency Co-ordinator and all Emergency Co-ordinator alternates will carry two-way radios for communication while on-site. The primary Emergency Co-ordinator and Emergency Co-ordinator alternates will carry pagers or cell phones when off-site and on-call.

6.3 External Alarm Systems

RGMC will co-ordinate with communities downgradient and/or downwind of the Project in which potential Level IV incidents may require community evacuations to ensure that they are equipped with a proper alarm system. This alarm system should be able to be triggered by either the local police or fire departments in accordance with the procedures included in the applicable community emergency plan. The decision to trigger this community alarm system in the event of a Level IV emergency at the Project site will be made by the local police or fire departments with input from the RMGC Emergency Co-ordinator. The primary and alternate Emergency Co-ordinators will carry pagers or cell phones when off-site and on-call.

6.4 External Communication Systems

The Project will be serviced by a fibre optic link providing communication outside the facility. All outside emergency communications will be conducted via this telephone line. Cellular phones will be available as a backup system.

7 Emergency Response Procedures

7.1 General Information On Emergency Response

The emergency response procedures presented in this section are intended to be quick reference guidance for use by the first responders, the Emergency Co-ordinator, the Incident Commander, and emergency response teams. All employees, the Emergency Co-ordinator, the Incident Commander, and emergency response team members will be provided appropriate levels of training as noted in Section 4.2 of the *Rosia Montana Project Environmental and Social Management Plan*. Therefore, these procedures are not intended to provide detailed actions for every emergency situation. For example, it is assumed that the fire workers will have extensive firefighting training, therefore, the procedure presented here will not go into detail about how to fight a fire.

It must be understood that every emergency situation is different and the approach to response varies significantly depending on the location, the materials and personnel involved, weather conditions, and other variables. ***The first priority in any emergency situation is the safety of the employees, first responders, and any other persons potentially exposed to the hazards associated with the emergency. No employee, visitor, or contractor on site should respond to an emergency by taking actions for which the employee is not trained or qualified which puts the employee or others at risk.***

Emergency Notification Actions

An emergency situation may be observed by any employee or contractor, or may be brought to RMGC's attention by an outside party. The primary responsibility of RMGC or contractor employees in response to an emergency situation is to get help by dialling RMGC security on Extension [TBD] on any facility phone. If using a cellular phone, which dials in from the outside, then dial [TBD]. ***Employees that are not properly trained shall not attempt to stop the spill, contain the spill or clean up the spill.*** Dialling Extension [TBD] will put the employee in contact with Security. Security will immediately contact the Emergency Co-ordinator; the employee should then immediately call or report directly to his/her supervisor.

For those employees that are not first responders or associated with the emergency in any way, it is imperative that they:

- Remain at their place of work until instructed differently by means of voice or alarm communications;
- Do **not** approach the emergency site unless directed to do so;
- Be prepared to evacuate and follow evacuation procedures as provided in EM-06, "Facility Evacuation and Evacuation Accounting Procedures"; and
- Be prepared to provide assistance only when directed to do so by the Emergency Co-ordinator, Incident Commander or other emergency responders.

It must be understood that every emergency situation is different and the approach to response varies significantly. Typical proper first response requires the completion of the following steps:

- Get away from the any hazards and avoid direct contact with the spilled materials.
- Quickly try to identify the extent of the situation, i.e. how large is the fire or spill.
- Get help from qualified emergency responders by dialling Extension [TBD].

- Seal off the area and alert others of possible dangers.
- Look for injured persons, including taking time to examine yourself.
- Take time to identify existing and potential hazards.
- Remain in a safe location where you can provide additional information to the emergency responders once they arrive
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Response Actions

- Once contacted regarding an emergency situation, the Emergency Co-ordinator will immediately take the following general actions:
- Document the incident; record the date, times, information gathered, and note the persons providing information.
- Quickly assess the type of emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident.
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the appropriate emergency response team(s) that should respond to the emergency site.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and facility management.
- If evacuations are called for by the Incident Commander, the Emergency Co-ordinator shall ensure that EM-06 is fully implemented and shall ensure proper personnel accounting is conducted.
- In the event that a Level IV emergency is declared, the Emergency Co-ordinator shall work with the Incident Commander, the Communications Team, and off-site emergency response organisations to determine if external evacuations are necessary.
- Support the Incident Commander in locating and commandeering emergency response equipment.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the situation, e.g. how large is the fire or spill.

- Seal off the area and alert others of possible dangers.
- Look for injured persons.
- Take time to identify existing and potential hazards.
- Identify emergency response equipment needed and what emergency response equipment is immediately available, e.g. nearby emergency equipment lockers or firefighting equipment.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator to address and requirements for alarms and/or evacuations required, or off-site emergency reporting/notifications required
- Carry out the plan of action to bring the emergency situation under control.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

7.2 Emergency-Specific Guidelines

The following emergency-specific guidelines are presented as a quick reference for use by the first responders, the Emergency Co-ordinator, the Incident Commander, and emergency response teams. Again, these are guidelines, are not intended to be comprehensive, and do not provide detailed actions to address every emergency situation.

Fires

Fires may be one of the more likely emergency scenarios that may occur at the Project site. The process plant, administrative offices, other structures, and the Project as a whole will be equipped with stationary and portable fire fighting equipment, as well as a fire brigade and one or more fire trucks. The following guidance is provided for fire response.

First Responder Actions

First responders should not attempt to fight fires other than small fires, e.g. a fire in a waste basket, which can be easily put out with a portable fire extinguisher and then only if the first responder has had portable fire extinguisher training. ***No employee should take actions for which the employee is not trained or qualified and/or which puts the employee or others at risk.*** Every fire should be reported, even small fires after being extinguished, by dialling Extension [TBD]. For fires that cannot be easily extinguished with a portable fire extinguisher, the first responder should take the following actions:

- Get away from the fire and any other hazards.
- Quickly try to identify the extent of the situation, i.e. how large is the fire.
- Get help from qualified emergency responders by dialling Extension [TBD].
- Seal off the area and vocally alert others of possible dangers and/or triggering stationary building fire alarms.
- Look for any injured personnel, including taking time to examine yourself.

- Remain in a safe location where you can provide additional information to the fireworkers once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Actions

Upon being notified that a fire exists or has occurred, the Emergency Co-ordinator will immediately take the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the size of the fire, what resources are likely to be needed, if the fireworkers are required to respond, and the classification of the incident (level).
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the fireworkers and identify the Incident Commander.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and facility management.
- If evacuations are called for by the Incident Commander, the Emergency Co-ordinator shall ensure that EM-06 is fully implemented and shall ensure proper personnel accounting is conducted.
- In the event that a Level IV emergency is declared, the Emergency Co-ordinator shall work with the Incident Commander, the Communications Team, and off-site emergency response organisations to determine if external evacuations are necessary.
- Support the Incident Commander in locating and commandeering emergency response equipment.

Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state

Emergency Response Team Actions

Upon arrival at the fire site, the fireworkers will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Initiate local area/building evacuation if not already underway.
- Quickly try to identify the extent of the fire.
- Seal off the area and alert others of possible dangers.
- Look for any injured personnel.
- Take time to identify existing and potential hazards including the fire fuel source and potential ignition sources.

- Identify emergency response equipment needed, including personal protective equipment, and what emergency response equipment is immediately available.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator to address requirements for additional alarms or evacuations, or offsite emergency reporting or notification.
- Carry out the plan of action to bring the fire under control.
- Determine when the fire is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Potential Sodium Cyanide Releases

Although unlikely due to the existence of engineered controls and specialised training programmes, some potential exists for the release of reagent (strong) or in-process (weak) sodium cyanide solution. The following guidance is provided for response to these situations.

First Responder Actions

First responders should not attempt to halt a release of cyanide solution unless the responder has received the necessary training and can do so with no risk to his own safety. **No employee should take actions for which the employee is not trained or qualified and/or which puts the employee or others at risk.** Every release of cyanide solution should be reported, even a minor release than can be readily halted, by dialling Extension [TBD]. For releases that cannot be safely stopped, the first responder should take the following actions:

- Avoid contact with released solution and prevent contact with water if at all possible.
- If the release is in the dissolution area, sound the emergency alarm.
- Quickly try to identify the extent of the release.
- Get help from qualified emergency responders by dialling Extension [TBD].
- After putting on necessary personal protective equipment, remove any exposed persons from contact with the solution.
- Remove any contaminated clothing and wash exposed person with water from hose or safety shower.
- Administer an approved antidote and medical oxygen if exposed person has symptoms of cyanide poisoning.
- Prevent others from entering area and contacting solution.
- Remain in a safe location where you can provide additional information to the fireworkers once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Actions

Upon being notified of a release, the Emergency Co-ordinator will immediately take the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the size of the release, what resources are likely to be needed, if the first aid is required, and the classification of the incident (level).
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the emergency response team and identify the Incident Commander.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and RMGC management.

If evacuations are called for by the Incident Commander, the Emergency Co-ordinator shall ensure that procedure EM-06 is fully implemented and shall ensure proper personnel accounting is conducted.

In the event that a Level IV emergency is declared, the Emergency Co-ordinator shall work with the Incident Commander, the Communications Team, and off-site emergency response organisations to determine if external evacuations are necessary.

Support the Incident Commander in locating and commandeering emergency response equipment.

Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state.

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Initiate local area/building evacuation to clear area of unnecessary personnel.
- Quickly try to identify the extent of the release.
- Seal off the area and alert others of possible dangers.
- Identify emergency response equipment needed, including personal protective equipment, and what emergency response equipment is immediately available.
- Call for additional help, resources, and emergency response equipment if required.
- After putting on necessary personal protective equipment, remove any exposed persons from contact with the solution.
- Remove any contaminated clothing and wash exposed person with water from hose or safety shower.

- Administer an approved antidote and medical oxygen if exposed personnel have symptoms of cyanide poisoning.
- Halt release at source if possible.
- Construct earthen dikes, berms and/or temporary diversions to contain the release and prevent it from reaching natural surface water.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

TMF Secondary Containment Dam Failure

The TMF is designed with emergency freeboard (to accommodate extreme precipitation events as well as a Secondary Containment Dam and pumpback system. In the highly unlikely event of a TMF Secondary Containment Dam breach, the emergency situation would be focused primarily on inhabited areas immediately below the Secondary Containment Dam. Rescue and medical services would be the typical emergency response needs. The following guidance is provided for emergency response.

First Responder Actions

Typical first responder actions for a TMF failure would involve the following steps:

- Be aware of further potential failures and get away from any potential downgradient failure areas.
- Quickly try to identify the extent of the situation, e.g. are there any injuries, burials, or drownings.
- Get help from qualified emergency responders by dialling Extension **[TBD]** or calling on a two-way radio.
- Seal off the area and alert others of possible dangers.
- Remain in a safe location where you can provide additional information to the emergency responders once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Response Actions

Upon being notified regarding a Secondary Containment Dam failure, the Emergency Co-ordinator will immediately take the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the extent of the emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident.
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.

- Notify the appropriate emergency response team(s) that should respond to the emergency site.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, communications co-ordinator, and facility management.
- Support the Incident Commander in locating and commandeering emergency response equipment, including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state.

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically comply with the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the situation, e.g. injuries.
- Seal off the area, including above and below the unstable area of the Secondary Containment Dam, and alert others of possible dangers.
- Take the time to quickly identify other existing and potential hazards.
- Identify emergency response equipment needed and what emergency response equipment is immediately available including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator about the extent of the emergency.
- Carry out the plan of action to bring the emergency situation under control.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Pit Slope Failures

In the unlikely event of a pit slope failure, the emergency situation will most likely be limited to the area within the pit. Rescue and medical services would be the typical emergency response needs. The following guidance is provided for emergency response.

First Responder Actions

Typical first responder actions for a pit slope failure would involve the following steps:

- Be aware of further potential slope failures and get away from exposed areas.
- Quickly try to identify the extent of the situation, i.e. are there any injuries or burials.
- Get help from qualified emergency responders by dialling Extension **[TBD]** or calling on a two-way radio.
- Seal off the area and alert others of possible dangers.
- Remain in a safe location where you can provide additional information to the emergency responders once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Response Actions

Upon being contacted regarding a pit slope failure, the Emergency Co-ordinator should take the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the extent of the emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident.
- Make an initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the appropriate emergency response team(s) that should respond to the emergency site.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and RMGC management.
- Support the Incident Commander in locating and commandeering emergency response equipment, including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the situation, e.g. burials or injuries.
- Seal off the area, including above and below the unstable area, and alert others of possible dangers.

- Take time to identify other existing and potential hazards.
- Identify emergency response equipment needed and what emergency response equipment is immediately available including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator about the extent of the emergency.
- Carry out the plan of action to bring the emergency situation under control.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Waste Rock Stockpile Failures

Waste rock will be used for construction of the Corna Valley TMF embankments and other impoundments to the extent possible. If not required for construction, waste rock will be hauled to the Cetate and/or Cârnic stockpiles, located at the entrance of the Roşia Valley and at the top of the Corna Valley, respectively. In the unlikely event of a waste rock stockpile failure, the emergency situation will most likely be limited to the immediately below these stockpile areas. Rescue and medical services would be the typical emergency response needs. The following guidance is provided for emergency response.

First Responder Actions

Typical first responder actions for waste rock stockpile failures would involve the following steps:

- Be aware of further potential slope failures and get away from exposed areas.
- Quickly try to identify the extent of the situation, e.g., potential injuries or burials.
- Get help from qualified emergency responders by dialling Extension **[TBD]** or calling on a two-way radio.
- Seal off the area and alert others of possible dangers.
- Remain in a safe location where you can provide additional information to the emergency responders once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Response Actions

Upon being notified regarding a waste rock stockpile failure, the Emergency Co-ordinator should undertake the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the extent of the emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident.

- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the appropriate emergency response team(s) that should respond to the emergency site.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and RMGC management.
- Support the Incident Commander in locating and commandeering emergency response equipment, including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state.

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the situation, e.g. any potential burials or injuries.
- Seal off the area, including above and below the unstable area, and alert others of possible dangers.
- Take time to identify other existing and potential hazards.
- Identify emergency response equipment needed and what emergency response equipment is immediately available including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator about the extent of the emergency.
- Carry out the plan of action to bring the emergency situation under control.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Blasting/Explosive Accidents³

Explosive agents including ANFO, high explosive initiators, and detonators will be stored in separate, secure magazines to be located south of the Cetate pit in an area approximately 600 metres away from the plant facility and over three kilometres from dwellings. Blasting caps will be kept separated from ANFO in a separate, secure magazine. Blasting operations will be carried out daily during the operational period, but will never be conducted at night. While explosives must always be handled with extreme caution, blasting in the international mining industry is a very common and carefully controlled practice. However, all explosives are intrinsically dangerous and accidents are always a possibility.

The most likely scenarios are:

- unexpected explosions at the ANFO slurry mixing site (which would typically be handled like a fire emergency; see Section 7.2.1);
- unexpected explosions of explosives stored in magazines;
- unexpected explosions during transit to the blasting site; or
- premature/unexpected explosions at the blasting site.

Traumatic injury and/or burial of workers would be the typical worst case scenario for a blasting accident. Rescue and medical services would be the typical emergency response needs. The following guidance is provided for emergency response.

First Responder Actions

Typical first responder actions for unexpected explosive detonation would involve the following steps:

Be aware of further potential explosions, unexploded explosives, fires, or unstable equipment and get away from exposed areas.

Quickly try to identify the extent of the situation, e.g., any potential injuries or burials.

- Get help from qualified emergency responders by dialling Extension **[TBD]** or calling on a two-way radio.
- Seal off the area and alert others of possible dangers.
- Remain in a safe location where you can provide additional information to the emergency responders once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

³ Failure of explosives to detonate is a special type of emergency that requires the involvement of highly trained blasting personnel or speciality contractors and implementation of special procedures, as set forth in HS-18, "Blasting Safety."

Emergency Co-ordinator Response Actions

Upon being contacted regarding an unexpected accident involving explosives, the Emergency Co-ordinator should perform the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the extent of the emergency, what resources are likely to be needed, if emergency response team(s) are required to respond, and the classification of the incident.
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the appropriate emergency response team(s) that should respond to the emergency site (which must include a qualified Blasting Engineer).
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and facility management.
- Support the Incident Commander in locating and commandeering emergency response equipment, including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state.

Emergency Response Team Actions

Upon arrival at the emergency site, the emergency response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the situation, e.g., injuries, fires, or burials.
- Seal off the area and alert others of possible dangers.
- Take time to identify other existing and potential hazards such as fires, HAZMAT releases, ignition sources, or unstable structures.
- Identify emergency response equipment needed and what emergency response equipment is immediately available including mine equipment such as excavators, loaders, haul trucks, or bulldozers.
- Prepare a plan of action, in consultation with the certified Blasting Engineer;
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator about the extent of the emergency.
- Carry out the plan of action to bring the emergency situation under control.
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Power and/or Other Utility Failures

Power and/or other utility failures are not uncommon in mining settings, and typically do not result in emergency situations. The key to prevent power and/or utility outages from becoming an emergency situation is to perform process hazard analyses on all critical process areas and identify utility-critical areas/operations. For those areas/operations that are utility-critical, RMGC will provide backup utilities and emergency procedures for equipment shutdown/protection. For example, CN-08, "Emergency Power Generation for Cyanide Handling Equipment" provides a procedure for backup power generation that applies to critical pumps and other cyanide handling equipment.

Chemical/Fuel/Waste Spills

Chemical, fuel, or waste spills at the process plant would be one of the more likely emergency scenarios experienced by the Project. The facility is equipped with emergency response equipment lockers located near all chemical and fuel management areas as well as a fire truck equipped to handle HAZMAT incidents. The following guidance is provided for chemical/fuel/waste spill response.

First Responder Actions

First responders should not attempt to stop, contain, or cleanup chemical, fuel or waste spills unless he/she has had specific training to do so. For example, an operator in the carbon circuit area and properly trained to handle hydrochloric acid, may take first responder action to stop and contain a spill of hydrochloric acid (such as shutting off a valve, plugging a drain, or righting a container, if he/she can safely do so. **No employee shall take actions for which the employee is not trained or qualified and/or which puts the employee or others at risk.** However, typical first responder action in the event of a chemical, fuel or waste spill will involve:

- Get away from the spill and any other hazards.
- Quickly try to identify the extent of the situation, i.e. how large is the spill, what is the source, and what is the material spilled.
- Get help from qualified emergency responders by dialling Extension [TBD].
- Seal off the area and alert others of possible dangers.
- Look for injured personnel, including taking time to examine yourself.
- Remain in a safe location where you can provide additional information to the fireworkers once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Actions

Upon being contacted regarding chemical, fuel or waste spill, the Emergency Co-ordinator will immediately take the following general actions:

- Begin a log of the incident including date, times, information gathered, and persons providing information.

- Quickly assess the size of the spill, what resources are likely to be needed, if the HAZMAT team is required to respond, and the classification of the incident (level).
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.
- Notify the HAZMAT team and identify the Incident Commander.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, public communications co-ordinator, and facility management.
- If evacuations are called for by the Incident Commander, the Emergency Co-ordinator shall ensure that EM-06 is fully implemented and shall ensure proper personnel accounting is conducted.
- In the event that a Level IV emergency is declared, the Emergency Co-ordinator shall work with the Incident Commander, the Communications Team, and off-site emergency response organisations to determine if external evacuations are necessary.
- Support the Incident Commander in locating and commandeering emergency response equipment.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state

Emergency Response Team Actions

Upon arrival at the emergency site, the HAZMAT response team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Initiate local area/building evacuation if deemed necessary.
- Quickly try to identify the extent of the spill, the material spilled, and obtain MSDS sheet(s) for the spilled material.
- Seal off the area and alert others of possible dangers.
- Look for injured personnel.
- Take time to quickly identify existing and potential hazards including the fire/explosive hazards, potential ignition sources, or confined space hazards.
- Identify emergency response equipment needed, including personal protective equipment, and what emergency response equipment is immediately available.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator to address any required alarms or evacuations, or off-site/emergency reporting:
- Carry out the plan of action to bring the spill under control.

- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Medical Emergencies

Medical emergencies can be confined to a single individual (such as the case of an illness, heart attack), or stroke, or can affect one or more individuals as part of a larger emergency. It is the Emergency Co-ordinator's responsibility to initially determine if medical support is required during an emergency. The Incident Commander shall also make this judgement once at the emergency site. Medical emergencies typically require the following actions.

First Responder Actions

First responders should not attempt any sort of medical support to an injured person if such action places the responder at risk. First responders should also be aware of risks such as bloodborne pathogens when dealing with injured persons. **No employee should take actions for which the employee is not trained or qualified and/or which puts the employee or others at risk.** Typically, the first responder in a medical emergency should take the following actions:

- Get/keep away from hazards, especially those that caused the injury to the victim. Even if the victim is in a hazardous location, judgement must be used prior to moving the injured person as head, back, or neck injuries can be greatly exacerbated by moving the victim.
- Quickly try to identify the extent of the injury and whether or not rendering immediate first aid and/or Cardiopulmonary Resuscitation is necessary, possible, or advisable.
- Avoid contact with bodily fluids such as blood.
- Get immediate help from qualified medical team by dialling Extension **[TBD]**.
- Look for other injured persons, including taking time to examine yourself.
- Remain in a safe location, with the victim if possible, where you can provide additional information to the fireworkers once they arrive.
- Be prepared to receive and follow instructions from the Incident Commander, Emergency Co-ordinator or other emergency responders.

Emergency Co-ordinator Actions

Upon being advised of a medical emergency, the Emergency Co-ordinator will immediately take the following general actions:

- Document the incident including date, times, information gathered, and persons providing information.
- Quickly assess the extent of the injury, how many victims exist, and nature of hazards in the area in order to determine what resources are likely to be needed, if the medical team or other emergency teams are required to respond, and the classification of the incident (level).
- Make the initial determination of the alarm(s) that shall be sounded and initiate the appropriate alarm systems.

- Notify the medical team and identify the Incident Commander.
- Continue to support the Incident Commander in the role of liaison between the Incident Commander and others.
- Provide information to the Environmental Department, Health and Safety Department, communications Co-ordinator, and RMGC management.
- Support the Incident Commander in locating and commandeering emergency response equipment.
- Once the emergency is declared over by the Incident Commander, the Emergency Co-ordinator shall take control to co-ordinate documentation, cleanup, and return to normal operational state

Emergency Response Team Actions

Upon arrival at the emergency site, the medical team will typically follow the following general steps, recognising that all situations are different and may call for different actions.

- Clearly identify/acknowledge the Incident Commander.
- Quickly try to identify the extent of the injuries and if there are other victims or hazards.
- Take time to identify existing and potential hazards including the potential for fire, explosions, or hazardous liquids or gases.
- Identify emergency response equipment needed and what emergency response equipment is immediately available.
- Prepare a plan of action.
- Call for additional help, resources, and emergency response equipment if required.
- Communicate with the Emergency Co-ordinator. Make sure that all injuries are reported and documented.
- Transport victim(s) to nearest appropriate medical support area (whether on-site or off-site).
- Determine when the emergency is under control and make the declaration that the emergency is over. Control will then be turned over to the Emergency Co-ordinator.

Traffic/Mobile Equipment Accidents

Traffic or mobile equipment accidents may involve injuries, fires, and HAZMAT spills. The first responder and the Emergency Co-ordinator must quickly assess the extent of the emergency and then follow the appropriate guidance in the previous section(s).

Workplace Violence/Terrorism

Workplace violence or terrorism may take many forms and may include use of deadly weapons. Advance warning of the violence is unlikely. Workers should seek help from qualified emergency responders by calling Security at Extension **[TBD]** in the event of any incident of workplace violence or suspected terrorism. The following response guidance is for first responders. The Emergency Co-ordinator must quickly assess the extent of the emergency and then follow the appropriate guidance in the above section(s). The National Police should be notified in the event of any workplace violence incident or terrorist activity.

Gunfire/Weapons Observed

- If gunfire is heard, seek refuge in an area that can be locked from within if possible.
- Choose a room without windows or stay out of sight from room windows. Hide quietly and remain hidden in the room.
- If possible, call Security at Extension **[TBD]**; also call Police at “955.” If it is safe to do so, stay on the line with the dispatcher.
- Take no action to intervene.

Explosion/Bomb

- Immediately evacuate the building using established evacuation routes. Account for all building or room occupants. Do not disturb, move or touch any suspicious boxes or packages.
- Call Security at Extension **[TBD]**; also call Police at “955.” If it is safe to do so, stay on the line with the dispatcher and provide as much information as possible.

Bomb Threat

Bomb threats usually occur by telephone. The person receiving a bomb threat call should remain calm and attempt to obtain as much information as possible from the caller by using the following checklist.

- When is bomb going to explode?
- Where is it right now?
- What does it look like?
- What kind of bomb is it?
- What will cause it to explode?
- Did you place the bomb?
- Why?
- What is your address?
- What is your name?

- Call Security at Extension **[TBD]** and give your name, location, and telephone number. Inform them of the situation including any information you may have as to the location of the bomb, time it is set to explode, and the time when you received the call. Note details of the caller’s voice and any background noises.
- If you should spot a suspicious object or package, report it to the authorities, but under no circumstances should you touch it, tamper with it, or move it.
- If instructed to evacuate, move a safe distance away from the building (a minimum of 50 meters). If inclement weather conditions exist, you may move to another building a safe distance away. Do not re-enter the building until instructed that is safe to do so by the Incident Commander, Emergency Co-ordinator or other member of the emergency response team.

Suspicious Activity

- In the event that you observe a crime in progress, believe a crime may be in progress, or are the victim of a crime, contact Security immediately at Extension [TBD]. Give your name, location, and department. Advise them of the situation, and remain where you are until contacted by an emergency responder. Report suspicious persons or activities. All calls are kept confidential. When in doubt, report it.
- Do not attempt to apprehend or interfere with the criminal except in cases of self-protection.
- If safe to do so, take time to record a mental description of the suspect. Note height, weight, sex, colour, approximate age, clothing, method and direction of travel, and the person's name, if known. If the suspect is entering a vehicle, note the license number, make and model, colour, and outstanding characteristics.
- Protect the crime scene; items which may have been handled by the perpetrator may bear fingerprints and should not be touched. Do not clean or disturb the area. In case of a serious crime, the room or area where the crime occurred should be sealed off immediately. Do not allow anyone to enter the area until Security or the Police have secured and examined the area.
- In the event of civil disturbance, continue with your normal routine, if possible. If the disturbance is outside, stay away from doors and windows.
- Do not interfere with those persons creating the disturbance, or with authorities on the scene.

Hostage Situation

- Immediately evacuate the building if this action does not put you in greater danger. Carefully avoid the attention of those taking hostages.
- Take no action to intervene. Call Security at Extension [TBD]; also call Police at "955."
- If it is safe to do so, stay on the line with the dispatcher and provide as much information as possible.

Natural Disasters

In the event of a natural disaster such as severe weather, floods or earthquakes, the Emergency Co-ordinator should assess the situation and determine whether mining operations should shut down. Depending on the severity of the event, an Incident Commander should ensure that the following processes/systems are monitored for failure or release caused by the natural disaster: Cyanide Leaching, TMF, Pit Slope, and Waste Rock Dump. The procedures outlined in the previous sections should be followed in this instance. Mine shutdown may be followed by evacuation and close co-ordination will be required with the community emergency plan respondents.

7.3 Environmental Sampling During/After Emergencies

It is common during emergency response activities that ambient air, surface waters, soils, and stormwater runoff may be impacted by the emergency and/or response actions. For example, fires impact the ambient air, firefighting often generates significant firewater runoff, response to HAZMAT spills may result in washwater, neutralisers, and/or other HAZMAT

being discharged to soils and/or surface water. During an emergency response action, the Emergency Co-ordinator should gather information, through communication with the Incident Commander, as to the potential for releases to air, soils, surface waters, and/or stormwater runoff which may be of concern and/or reportable to outside agencies. Based upon this information, the Emergency Co-ordinator, in communication with the Environmental Department, should evaluate whether or not environmental sampling should be performed, and if so, if the sampling should be performed during (if safe to do so) or immediately after the emergency response.

Sampling may be required to determine:

- What materials spilled or released;
- The extent of contamination;
- If other areas of the facility may be impacted;
- If Project-wide evacuation is necessary;
- Whether reportable quantities were exceeded;
- If contamination has or is moving off-site;
- If contamination moving off-site presents an immediate risk to off-site populations or the environment;
- If reporting to outside agencies, officials, or other emergency organisations is required or advisable; and
- If the community emergency plan should be implemented.

Based upon communication between the Emergency Co-ordinator and the Environmental Department, an environmental sampling plan shall be developed. The Environmental Department shall be responsible for performing the sampling, sampling QA/QC, reporting of sampling results, and sampling documentation. Environmental sampling shall be performed in accordance with appropriate SOPs selected from the *RMGC Standard Operating Procedures Manual*

8 Establishing a Communication Centre

8.1 When to Establish a Communication Centre

The Emergency Co-ordinator is responsible for determining when Level III or IV incidents require the appointment of a public communications co-ordinator. The communications Co-ordinator is responsible for assembling a support team and determining whether or not to establish a Communication Centre. If a Level III or IV incident results in evacuations and/or attracts significant international attention, a Communication Centre should be established.

Location of Communication Centre

The Communication Centre should be established in Alba Iulia in order to facilitate communications with the Civil Command Inspectorate and the County Inspectorate for Environmental Protection. However, if communicating with the local population is the primary objective and communication lines in Abrud or Roşia Montană are unaffected, the Communication Centre may be established in these locations.

Role of the Communication Centre

The Communication Centre will serve as a base of operations with stable two-way communications for the public communications co-ordinator and support team to carry out their response role in an emergency. The Emergency Co-ordinator will be available on a twenty-four hour basis for the duration of the emergency response via the fibre-optic link telephone line to RMGC, back-up cellular phones, or two-way radio. The Communications Centre should be equipped, at a minimum, with fibre-optic lines, computers with Internet connections, cellular phones, facsimile machine, radio equipment, and television. A conference room should be available for use in conducting media briefings. Potential locations Alba Iulia, Abrud, and Roşia Montană for an appropriately equipped Communication Centre should be identified and Memorandums of Understanding established for the use in of the facilities in the event of an emergency. An emergency call centre should be established to handle inquiries from the public and media organisations. The Communications Centre can serve as a conduit for information between external emergency response organisations (see Table 5-2) and the Emergency Co-ordinator if necessary.

Communication Co-ordinator and Staffing

The public communication co-ordinator will staff the Project according to technical and public relations needs. The emergency call centre should be staffed on a twenty-four hour basis with personnel authorised to release statements.

Use of RMGC Website

In the event of an emergency that involves the interests of external stakeholders, the RMGC website should be used as a medium to establish and maintain updated information for the duration of the emergency. The website should also contain the telephone, facsimile, and e-mail contacts for the Communication Centre. The website name should be provided through traditional media venues such as television and radio.

8.2 Internal Communication Procedures

The public communications co-ordinator should advise the RMGC switchboard and any other staff likely to receive public inquiries that all questions from the media and the public received by RMGC staff should be answered by referring the caller to the Communications Centre.

Information regarding the emergency should be disseminated to RMGC employees on a regular basis. This information may consist of the same fact sheets prepared for the media and public or more detailed information, depending on the needs of the RMGC employees.

8.3 External Communication Procedures

The goal of the Communications Centre is to meet the information needs of stakeholders and promote long-term positive relationships while protecting the interests and good name of RMGC. This includes facilitating the dissemination of factual information regarding local, regional or international impacts of emergency incidents and co-ordinating response with external emergency response organisations.

To achieve these goals, the public communications co-ordinator will establish a formal briefing schedule to provide the news media with regular information updates throughout the emergency period. RMGC personnel contacted by the media for information regarding the emergency should refer media organisations to the Communication Centre. All externally released information; to include verbal statements and written news releases, should be approved by the Emergency Co-ordinator prior to release. The Emergency Co-ordinator should, when possible, clear any statements with the RMGC Managing Director.

If the emergency involves loss of life, next of kin should be notified prior to the public release of any names.

8.4 List of Outside Agency/Official Contacts

Table 5.1 includes a list of external emergency response organisations, including relevant agencies.

The primary media outlets in the region are the following:

- Newspaper: Ziuva, Evenimentul Zilei, and Adevarul
- TV Channels: Romania 1 and 2
- Radio Channels: Radio Romania Actualitati, Radio Timisoara, and Radio Sibiu

Information to Gather and Communicate

The public communications co-ordinator should be provided with copies of Forms 2.0 and 3.0, as well as updates on a regular basis on the severity and the geographic extent of the impact from the emergency, the level of activity by emergency response organisations, and any significant changes in the situation. Any public statements should be pre-approved by the Emergency Co-ordinator.

Media Communications

Local television, radio and newspaper media organisations should be contacted with updated fact sheets as new information becomes available. If media organisations request

or it is deemed in the best interests of RMGC and affected individuals, a media briefing should be held to allow the media to ask questions. The public communications co-ordinator should discuss the type of information he/she is allowed to release in verbal communication in advance of the media briefing. If possible, the RMGC Managing Director and/or Director, Community Development should attend all media briefings.

Communication to Families of Affected Employees

Families of affected employees or populations near the mine site should be contacted directly by the Communications Centre staff as soon as possible and advised of the condition and location of the family member and where to call to receive further information. If necessary, transportation assistance should be provided by RMGC to re-connect the family members.

8.5 Media Centre Communication Documentation

All incoming inquiries and responses should be documented. Telephone inquiries should be logged on telephone call log sheets. Media briefings should be transcribed and recorded. All records should be kept in accordance with MP-11, "Management of Environmental and Social Management System Records."

9 Facility Evacuation Procedures

9.1 Evacuation Routes and Assembly Points

In the event of an emergency, the responsible Incident Commander will typically initiate facility evacuations, including making the determination if a local area evacuation within the Project, a Project-wide evacuation, or evacuation of off-site populations is necessary according to EM-06, "Facility Evacuation and Evacuation Accounting Procedures." This section is intended to provide summary guidance based upon that procedure. Evacuations may include:

- building evacuations as in the case of a fire in a single building;
- local area evacuations as in the case of HAZMAT spill in an areas of the plant; or
- Project-wide evacuations as in the case of a major incident.

Building evacuations may be announced verbally or with building alarms. Local area evacuations may be announced verbally or with building/area alarms. Facility-wide evacuations will be announced by sounding of the Project-wide alarm – one long continuous blast of the alarm.

Each area supervisor is responsible for directing employees and visitors in her/his section to the proper exit and to a designated safe evacuation rendezvous area outside of the buildings or off the site property.

9.2 Personnel Accounting During Evacuations

As discussed in EM-06, all personnel from the evacuated area must be accounted for before the "all-clear" can be given and employees can return to their place of work. Therefore, it is important that everyone co-operate fully with those persons taking attendance at the assembly point. Attendance after an evacuation will be taken by visual recognition at the assembly point. No one shall leave the assembly point until accounted for. Security personnel and supervisors are responsible for taking the headcount.

9.3 Returning to Work

After the initial assembly and headcount, the Emergency Co-ordinator and Maintenance Department must assess the evacuated area to ensure that it is safe to return. The Emergency Co-ordinator, Incident Commander or Security personnel will notify employees if and when it is safe to re-enter the evacuated area. Employees are not to re-enter Project areas or facilities without approval from the Emergency Co-ordinator, Incident Commander, or Security personnel.

10 Emergency Response Equipment

The Project will maintain an appropriate and comprehensive inventory of emergency response equipment. The following subsections provide general information concerning the inventory and location of equipment dedicated to emergency response as well as other equipment available during emergency response actions.

10.1 Fire Fighting Equipment

In addition to the fireworkers, the Project will maintains firefighting equipment throughout the site, as described below.

Fire Trucks

One or more fire trucks will be available on-site for response to fires on a 24-hour basis. Fire trucks will only be used by trained fire brigade personnel. When not in use, the trucks will be located at the Security building (see Figure 10.1).

Portable Fire Extinguishers

Portable fire extinguishers are located throughout individual buildings, storage area, and processing areas of the Project. The number and location of all the fire extinguishers will be identified on the evacuation route maps posted at each building exit and occupied area of the facility.

Fire Hydrants

Fire hydrants will be located at strategic points throughout the Project site. These fire hydrants are to be used only by trained fire workers. A location of all fire hydrants will be shown in Figure 10.2 **[TBD]**.

Sprinkler Systems

Major buildings will be equipped with automatic fire sprinkler systems, designed to sense a fire and automatically activate to suppress the fire.

10.2 Emergency Response Equipment Lockers

Emergency Response equipment lockers will be placed strategically throughout the processing plant and other critical locations. The locker locations are shown on Figure 10.3 **[TBD]** and are listed below in Table 10-1. A typical inventory of emergency response equipment located in the lockers is presented in Table 10-2.

Table 10-1. Location of Emergency Response Equipment Lockers

Locker Number	Location	Primary Emergency Response Function
1	Reagent Building	Fires, chemical spills, cyanide releases, first aid
2	Admin./Warehouse Bldg.	Fires, chemical/oil spills, first aid
3	Stormwater Pond	Fires, chemical/oil spills, first aid
4	Wastewater Treatment Plant	Fires, chemical spills, first aid
5	Fuel Storage Area	Fires, chemical/oil spills, first aid
6	Primary Crusher	Fires, chemical/oil spills, first aid
7	Mining Area	Fires, chemical/oil spills, first aid
8	Pebble Crusher	Fires, chemical/oil spills, first aid

Table 10-2. Typical Emergency Response Equipment Locker Inventory

Emergency Response Equipment	Inventory (minimum)
Rubber gloves	6 pair
A-Level entry suit	4
B-Level entry suit	6
C-Level entry suit	6
SCBA w/ bottle and mask	6
Emergency Responder Orange Vest	6
Waste collection drums (outside locker)	5
Absorbent pads	1 roll
Push broom	2
Scoop shovel	2
Square shovel	2
Bullhorn	1
First aid kit	1
Portable eyewash station	1
Backboard	1
Portable torch and spare batteries	4

Rubber pullover boots	6 pairs
Barrier warning tape	4 rolls
Plastic tarpaulin or sheet	2
Portable pump	1
Emergency cones	6

10.3 Emergency Response Vehicles

As described above the Project will have one or more fire trucks located at the Security Building. These trucks will be equipped with both firefighting equipment and HAZMAT response equipment. The extent and nature of this equipment will be dictated by the fireworkers and the HAZMAT team.

An ambulance is also located at the Security Building. The ambulance is equipped with medical response equipment as dictated by the medical response team.

10.4 Other Facility Equipment Available During an Emergency

In the event of a major emergency, such as a TDF Secondary Containment System failure, pit slope failure, or waste rock stockpile failure, the Project has many vehicles that could be used for emergency response. The following list is a typical inventory, but could vary significantly over the life of the Project:

- Large haul trucks
- Bulldozers
- Backhoe excavator
- Wheel dozer
- Production loader
- Motor graders
- Utility loader
- Welding truck
- Flatdeck boom truck
- Water trucks
- Pickups
- Forklifts
- Cranes
- Telescopic loader
- Art boom work platform
- Bobcats

10.5 Emergency Lighting

Emergency lighting equipment and supporting portable generators are maintained at the Security Building, and at the Mine Office.

10.6 Location of Material Safety Data Sheets

A hardcopy of all applicable Material Safety Data Sheets will be maintained at the Health and Safety Department office in the Administration Building and at the Security Building with the fire truck. Material Safety Data Sheets will also be available on the RMGC website.

10.7 Location of Other Key Documents

- All other key environmental and emergency response documents will be reviewed, approved, distributed, updated and located in accordance with MP-05, "Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents."

11 Recovery from an Emergency Situation

11.1 Designation of “All Clear”

Typically, the Incident Commander will remain in control until the emergency is determined to be over, i.e. medical response to all injured persons is complete, fires are out, spills are stopped and contained, any other situation prompting the emergency is under full control, and the chance of a recurring emergency is deemed minimal. It is the Incident Commander that shall make the determination when the emergency is over and the “All-Clear” can be issued. Control of the emergency at this point will be turned back over to the Emergency Co-ordinator.

Any time the Project-wide alarm is sounded to announce an emergency (typically in Level ii through IV emergencies), the “All-Clear” signal will be sounded when the emergency is declared over. This announcement will consist of a series of short one-second blasts on the Project-wide alarm system. In the event of a Project-wide evacuation, local area, or building evacuations, employees are to remain at the pre-determined accumulation points until told to return to work per EM-06, “Facility Evacuation and Evacuation Accounting Procedures.” However, the “All-Clear” alarm announcement will typically indicate that it is safe to return to work.

11.2 Start-up of Facility Processes/Regular Operations

If the emergency situation required that facility processes or regular operations were interrupted or shutdown, the start-up and return to normal operations will be in accordance with the pre-determined start-up procedures. The “All-Clear” alarm announcement does not signal the start-up of interrupted or shutdown processes. Employees will only initiate the start-up procedures when given instructions to do so by their supervisors.

12 Post -Emergency Mitigation

12.1 On-site Cleanup

Once the emergency has been declared to be over by the Incident Commander, control of the post emergency actions will be the responsibility of the Emergency Co-ordinator. While every situation will be different, the typical Emergency Co-ordinator actions will include:

- documentation of the incident;
- initiation of the emergency incident investigation, reporting, and record keeping per EM-01, "Emergency Incident Investigation, Reporting, and Recordkeeping";
- initiation of cleanup;
- immediately provide for treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from the incident;
- follow-up communication with outside emergency response personnel including notification to any outside agencies or emergency response personnel which were notified during the emergency that operations are about to resume; and
- ensure that all emergency equipment is cleaned or replaced, and is fit for use before operations are resumed.

The Emergency Co-ordinator will need support from the Incident Commander, the emergency responders, and other Project Departments..

It should be noted that the Incident Commander and emergency responders are responsible only for *response* during the emergency, i.e. stopping and containing spills, medical services, firefighting, or conducting rescue operation. Clean up and decontamination operations after the emergency has been declared over are the responsibility of the Emergency Co-ordinator and other delegated departments, organisations, or contractors. Clean-up operations will be under the general direction of the Emergency Co-ordinator, but will typically involve the Production, Maintenance, Environmental, and Health and Safety Departments. The first action of the Emergency Co-ordinator, with the involvement of these departments, is to develop a clean-up plan.

12.2 Development of a Clean-up Plan

The clean-up plan shall address the following at a minimum:

- Those immediate actions that must be taken before normal operations can be restored and operations/processes that were interrupted or shutdown can be brought back to normal operation;
- Those longer-term actions that must be taken to restore the facility to the condition prior to the emergency;
- A personal protective equipment assessment of all non-routine clean-up tasks to determine appropriate personal protective equipment to be worn during the cleanup activities;
- Compliance with the RMGC *Occupational Health and Safety Plan* and applicable safety procedures, including:
 - HS-02, "Electrical Safety,

- HS-04, “Hazard Communication”,
 - HS-05, “Hearing Conservation”,
 - HS-06, “Respiratory Protection”,
 - HS-07, “Life Safety Evacuation and Egress”,
 - HS-08, “Equipment Lockout/Tagout”,
 - HS-09, “Personal Protective Equipment”,
 - HS-11, “Confined Space Entry”,
 - HS-12, “Housekeeping”,
 - HS-13, “Working Surfaces, Ladders, and Scaffolds”,
 - HS-14, “Fall Protection”, and
 - HS-15, “Fire Protection”;
- Additional training for personnel to handle new, non-routine tasks;
 - Industrial hygiene monitoring;
 - Environmental sampling;
 - Waste generation, classification, handling, and disposal;
 - Clean-up equipment required;
 - Outside contractors or equipment that may be required;
 - Decontamination of buildings and process equipment;
 - Decontamination, replacement, and stocking of emergency response equipment used during the emergency, and
 - Workplan (including schedule) for cleanup and restoration.

General Decontamination Guidance

In the event of an emergency situation involving HAZMAT, employees involved in the incident, emergency response personnel, emergency response equipment, buildings, process equipment, Secondary Containment System, and floors all may come in contact with HAZMAT. Employees, emergency response personnel, and equipment must be decontaminated of all chemicals and dusts prior to returning to normal operations.

Employee Decontamination

During an emergency, any employee whose clothing or person comes into direct contact with a hazardous substance that is potentially acutely harmful through skin and eye contact or through inhalation, should immediately be decontaminated by:

- Remove contaminated clothing;
- Proceed to a safe emergency shower and eye wash which is away from any chemical or physical hazards;
- Flush the affected areas for a minimum of fifteen minutes;
- Receive first aid care on-site; and

- Be taken to a secondary medical facility for a follow up physical or treatment.

Emergency Response Personnel Decontamination

Employees involved in the emergency response or clean up activities must remove all contaminated clothing, shower and don clean clothing before leaving the facility property. Likely scenarios involving small amounts of hazardous materials will not require special showering or decontamination facilities. Contaminated clothing should be disposed of as hazardous waste or laundered for re-use.

If an employee is overcome by hazardous materials and becomes unconscious, other emergency response members must decontaminate the unconscious person before he/she is released for transport to a first aid or medical facility. Obviously, in a life-threatening situation, this decontamination may be cursory. The decontamination must be sufficient to prevent possible danger to medical personnel. Medical facilities are not typically equipped to decontaminate clothing or persons contaminated with hazardous materials. Furthermore, the paramedics or medical team must be informed of the hazardous materials involved and should be given Material Safety Data Sheets for those materials.

Under certain emergency situations, such as a contaminated employee who becomes unconscious, it may be necessary to conduct speedy decontamination using the shower facilities. In this case the shower drains would be blocked to prevent discharge. If the shower water is not believed to meet sanitary sewer discharge standards, it will be prevented from release into the environment, collected and disposed of in accordance with all applicable federal, State and local regulations.

For situations involving large amounts of hazardous materials, a temporary decontamination station may be established using one of the emergency showers located within a contained area. Such a station would serve as first stage decontamination to eliminate hazardous materials on the outer layers of the personal protective equipment. At a second stage in another location, the outer layers of personal protective equipment would be removed. The final stage would entail the normal showering and donning of clean clothing as is normally conducted in the locker room facilities.

Equipment Decontamination

As part of the clean-up effort, Emergency Co-ordinator will ensure that all emergency response, mobile equipment and/or processing equipment involved in the emergency response or clean-up activities will be cleaned and any necessary service performed before re-use or storage. This is essential, as the emergency response equipment must be in a ready condition before placing back into storage and processing equipment be decontaminated before being placed back into normal operation.

The cleaning will typically consist of a rinse down of the equipment with a mildly alkaline solution. However, Material Safety Data Sheets should be consulted to provide guidance on proper decontamination. The equipment will be scrubbed as necessary to remove any solids. The Emergency Co-ordinator and the clean-up plan must ensure that the resulting washing liquids are handled and disposed properly. Care should be taken to perform decontamination within permanent or temporary Secondary Containment Systems to prevent further soil and/or surface water contamination.

Assistance with Offsite Mitigation Actions

In the event that an emergency has impacts outside the facility boundary, the Emergency Co-ordinator is again responsible for mitigation actions. However, the community stakeholders will be involved in the planning and clean-up process. Once the emergency has been declared to be over by the Incident Commander, the typical Emergency Co-ordinator actions will include:

- Documentation of the incident;
- Initiation of the emergency incident investigation, reporting, and record keeping per EM-01;
- Identification of all impacted persons, businesses, and environmental media;
- Ensure that all potential acute and/or chronic human health and/or environmental impacts are identified and communicated to appropriate stakeholders;
- Establish human health and environmental monitoring based upon anticipated impacts;
- Initiation of cleanup planning committee involving all interested stakeholders;
- Immediately provide for identification, containment, treating, storing or disposing of recovered waste, contaminated soil or surface water, or any other material that results from the incident; and
- Ensure that all on-site and off-site emergency equipment is cleaned or replaced, and is fit for use.

Establishment of the Clean-up Committee and Community Clean-up Plan

Once all appropriate stakeholders have been identified, a clean-up committee shall be established per the community emergency plan. The committee shall establish the scope, authority, workplan and schedule of the clean-up. This shall all be documented in a community clean-up plan. The clean-up plan shall address the following at a minimum:

- Those immediate actions that must be taken to prevent further human health and environmental impacts to the extent practicable;
- Establishment of clean-up goals and guidelines;
- Those longer-term actions that must be taken to restore the environment and community to pre-emergency conditions;
- A personal protective equipment assessment of all clean-up tasks to determine appropriate personal protective equipment to be worn during the cleanup activities;
- Applicable safety procedures;
- Additional training for clean-up personnel;
- Industrial hygiene monitoring;
- Environmental sampling;
- Waste generation, classification, handling, and disposal;
- Clean-up equipment required;
- Outside contractors or equipment that may be required;

- Decontamination of soils, surface waters, groundwater, vegetation, or wildlife;
- Decontamination of buildings, residences, and other property;
- Decontamination, replacement, and stocking of emergency response equipment used during the emergency, and
- Workplan including schedule for cleanup and restoration.

13 Emergency Incident Investigation and Documentation

During any emergency incident, documentation of the emergency begins with the initial report of the emergency by the first responder. Key personnel keeping a log of the incident include the Security personnel taking the call, the Emergency Co-ordinator who immediately begins a log of the incident, and the Incident Commander keeping a log at the scene of the emergency response. All of these documents, as well as others generated throughout the emergency, become part of the emergency record. In addition, emergencies must be investigated and documented in accordance with EM-01, "Emergency Incident Investigation, Reporting, and Recordkeeping." Corrective and preventive actions must be taken to ensure that such emergencies can be prevented in the future as required per MP-10, "Corrective and Preventive Action for Environmental and Social Management System Non-conformances." A brief summary of these procedures as they pertain to emergency incident investigation and documentation is provided here.

Once the emergency is declared over by the Incident Commander, the incident investigation process begins, under the direction of the Emergency Co-ordinator, with the purpose of:

- Determining the root cause of the emergency;
- Determining if appropriate emergency response was taken;
- Determining if the *Emergency Preparedness and Spill Contingency Plan*, emergency response organisation, and emergency procedures were adequate or need to be modified;
- Determining corrective and preventative actions to prevent recurrence; and
- Documenting the incident and subsequent corrective/preventive actions.

14 Spill Prevention

Spill prevention planning is one of the key approaches to prevention emergency situations at a mining/processing facility. This section presents some of the primary spill prevention actions that will be implemented into the design and day-to-day operation of the RMGC facility.

14.1 Hazardous Materials and Fuel Storage

Fuel Storage and Transfer

The plant site fuel storage facility includes one above ground storage tank for diesel fuel and one above ground storage tank for gasoline surrounded by a protective concrete Secondary Containment System with capacity to hold 110 percent of the volume of all tanks in the area. The diesel fuel and gasoline tanks will have a capacity of approximately 800,000 litres and 20,000 litres, respectively, and are constructed of steel. Overfill protection will involve inventory management and visual checks during filling of the two fuel tanks. No underground fuel storage tanks will be permitted on site.

Fuel storage tank filling, vehicle fuelling, fuel truck filling operations are specifically covered in EM-09, "Management of Fuelling Facilities" and EM-10, "Field Fuelling Operations."

Hazardous Material Storage and Transfer

Sodium Cyanide

Details of sodium cyanide storage and transfer operations and associated handling procedures are provided in the *Cyanide Management Plan*.

Reagent Storage and Handling

Reagents in addition to sodium cyanide include:

- Flocculant;
- Sodium hydroxide;
- Hydrochloric acid;
- Cyanide detoxification reagents;
- Copper sulphate; and
- Sodium metabisulphite.

These reagents will typically be transported to the Project site by a commercial carrier in totes (~2,000 litres) and/or drums (~ 220 litres). These reagents will be unloaded at the reagent storage building using a forklift on a bermed concrete containment pad. The reagents will be stored in the shipping totes and drums within the reagent building, which is also bermed to provide secondary containment. Incompatible materials, e.g. sodium hydroxide and hydrochloric acid, will be stored in separate containment such that there is no possibility that spills could intermix.

When required as part of processing operations, reagents will be transported in the shipping containers from the reagent storage building to the process area using forklifts on plant roads. The shipping containers will be placed a bermed containment pad to be pumped as needed into the process. Once empty, the reagent shipping containers will be returned via forklift to the reagent storage building and stored until they can be returned to the supplier.

Protection of Aboveground/Overhead Piping

Within the processing plant, there will be aboveground and overhead piping, used to transport in-process materials and to transport wastes (e.g. mill tailings). Warning signs will be posted at the security gate to communicate to outside vehicles entering the facility of the height limitations. Designated trafficways for outside commercial vehicles delivering chemicals, reagents and/or fuels will be posted and such vehicles will be limited to those trafficways. Where pipelines are near trafficways, traffic barriers will be placed to protect the pipelines. Pipelines passing over trafficways will be at a minimum posted height of **[TBD]** metres.

Movement of cranes and other large equipment will be performed only after planning the route through the facility and then with a posted observer.

14.2 Site Security – Access Control Considerations

All outside traffic will be required to enter the facility through the principal access road, i.e. from the DN74A trunk road south of Abrud. This access road will be controlled with a guard gate to be manned 24 hours per day. All traffic and visitors must check in at this guard gate upon entering or leaving the Project site. The main processing plant area will be fenced to prevent unauthorised access. Critical areas such as the reagent storage building, fuel storage area, main office, and all processing areas will be within this fence. Access roads other than the main access gate will be gated and locked. A security staff will be provided for overall site security as well as to provide protection during gold pours.

Doré bullion will be stored in a vault until shipped offsite by a licensed and bonded armoured carrier.

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15 Emergency Preparedness Inspections

A key component of emergency preparedness is frequent, routine inspections of emergency response systems. This section is a summary of the requirements of the maintenance, inspections and testing EM-03, “Emergency Response Equipment – Maintenance, Inspections, and Testing.”

15.1 Inspections of Emergency Response Equipment

At the direction of the Emergency Co-ordinator, inspections of the emergency response equipment within the facility shall be conducted by the Health and Safety Department. These inspections shall be documented. A listing of the emergency response equipment inspections and frequency is shown in Table 15.1.

Table 15-1. Emergency Response Equipment Inspections

Emergency Response Equipment	Routine Inspection ¹	Detailed Inspection ²
Portable fire extinguisher	monthly	annually
Fire hydrants	NA ³	annually
Fire truck	monthly	annually
Emergency Response equipment in fire truck	monthly	annually
Building sprinkler systems	NA	annually
Emergency Response equipment lockers	monthly	annually
Ambulance	monthly	annually
Emergency Response equipment in ambulance	monthly	annually
Emergency lighting	monthly	annually

¹ Routine inspections are to verify equipment is in place and apparent working order.

² Detailed inspections are a thorough check by qualified persons of the equipment integrity and capability.

³ Not applicable or required.

15.2 Inspections of Alarm and Communication Systems

Testing of Alarms

Internal

Alarms systems within the facility shall be periodically tested by the Health and Safety Department. These tests will be documented and will include:

- an actual sounding of the plant-wide alarm system at 12:00 noon every Thursday; and
- annual testing and sounding of all building and area alarms.

External

As per the requirements of the community emergency plan, the community alarm system will be tested at least biennially with a co-operative effort between the RMGC facility and the local Police and Fire Departments. This testing is the responsibility of the Emergency Co-ordinator. These tests will be documented.

Testing of Communications Systems

Internal

Communication systems within the facility shall be periodically tested by the Health and Safety Department. These tests will be documented and will include:

- Test dialling the Extension [TBD] phone notification system on a monthly basis.
- Having a test notification call-out of the Emergency Co-ordinator on a monthly basis.

External

As per the requirements of the community emergency plan, the community communication system will be tested at least biennially with a co-operative effort between the RMGC facility and the local Police and Fire Departments. This testing is the responsibility of the Emergency Co-ordinator and may be in conjunction with the community alarm system. These tests will be documented.

15.3 Bulk Storage Tank Inspections

All bulk storage tanks containing fuels, reagents, chemicals, and other hazardous materials shall be formally inspected by the Environmental Department on a monthly basis. This inspection shall be documented. This shall be a visual inspection of:

- Tank integrity;
- Signs of leaks, bulges, rusting, or other indications of chronic failure;
- Condition of the Secondary Containment System;
- Condition of the piping/pumping systems; and
- Condition of the bermed loading/unloading pad.

15.4 Packaged Product Storage Inspections

All reagent/chemical storage areas (not covered by the tank inspections above) shall be formally inspected by the Environmental Department on a monthly basis. This inspection shall be documented and shall examine the following:

- Container integrity;
- Signs of leaks, bulges, rusting, or other indications of chronic failure;
- Condition of the bermed containment and any associated sumps;
- Condition of the piping/pumping systems; and
- Condition of the loading/unloading pad.

15.5 Sodium Cyanide Storage and Handling Area Inspections

Sodium cyanide storage and handling area inspections are covered in the Project-specific *Cyanide Management Plan*.

15.6 Tailings Management Facility (TMF) Inspections

TMF inspections are addressed in the Project *Tailings Management Facility Plan*.

15.7 Explosives Storage Magazine Inspections

The explosive storage magazines shall be formally inspected by a certified Blasting Engineer on a monthly basis. This inspection shall be documented and shall specifically examine:

- Magazine integrity, security, and housekeeping, including evidence of rodents or other vermin;
- Proper separation of primer materials from explosives;
- Condition of locks;
- Currency and accuracy of magazine inventory and contents logs; and
- Evidence of any potential tampering with magazine doors, ventilators, locks, or security systems.

16 Emergency Preparedness Training and Drills

All employees and emergency response team members shall have emergency preparedness training and participate in drills as per the requirements of the RMGC Occupational Health and Safety Plan and HS-17, "Employee Safety Training, Drills, and Meetings." All training shall be documented and administered as note in MP-03, "Environmental and Social Management System Training." The following is a summary of those requirements.

16.1 Emergency Response Team Member Training

Fireworkers Training

All persons serving as a fireworker and/or serving as an Incident Commander in an emergency involving firefighting, shall have firefighting training. All training shall be documented and become part of the employee's permanent file. This training shall consist of the following at a minimum:

- initial firefighting training;
- firefighting personal protective equipment training;
- annual refresher firefighting training;
- annual respiratory protection training;
- annual lockout/tagout training;
- annual confined space entry training;
- annual ladder and scaffolding training;
- annual fire protection training;
- annual fall protection training;
- annual first aid training;
- annual bloodborne pathogen training; and
- annual cardiopulmonary resuscitation training.

HAZMAT Team Training

All persons serving on the HAZMAT team and/or serving as an Incident Commander in an emergency involving hazardous material spills, shall have HAZMAT response training. All training shall be documented and become part of the employee's permanent file. This training shall consist of the following at a minimum:

- hazard communication training;
- initial HAZMAT response training;
- HAZMAT personal protective equipment training;
- annual refresher HAZMAT training;
- annual respiratory protection training;
- annual lockout/tagout training;

- annual confined space entry training;
- annual ladder and scaffolding training;
- annual fire protection training;
- annual fall protection training;
- annual bloodborne pathogen training;
- annual first aid training; and
- annual cardiopulmonary resuscitation training.

Medical Team Training

All persons serving on the medical team and/or serving as an Incident Commander in an emergency involving medical emergencies, shall have medical response training. All training shall be documented and become part of the employee's permanent file. This training shall consist of the following at a minimum:

- Hazard communication training on hazardous materials;
- Medical technician training;
- HAZMAT personal protective equipment training;
- Annual refresher HAZMAT training;
- Annual respiratory protection training;
- Annual lockout/tagout training;
- Annual confined space entry training;
- Annual ladder and scaffolding training;
- Annual fire protection training;
- Annual fall protection training;
- Annual bloodborne pathogen training;
- Annual first aid training; and
- Annual Cardiopulmonary Resuscitation training.

Employee Training on Portable Fire Extinguishers

All employees will be given annual training on the use of portable fire extinguishers. However, such training does not obligate the employee to fight fires.

Employee Training as a First Responder

All employees will be given annual training as a first responder in order to cover the obligations, limitations, and actions of a first responder, i.e. the first person to recognise an emergency situation. See Section 4.2.1 for a description of first responder responsibilities.

16.2 Emergency Notification Drills

Emergency Co-ordinator/Incident Commander/Response Team Call-Out Drills

On a monthly basis, a drill will be performed to call-out the Emergency Co-ordinator, designation and call-out of an Incident Commander, and call-out of an emergency response team. This drill will be conducted by the Health and Safety Department and shall be documented.

External Emergency Communication Drills

As per the requirements of the community emergency plan, the community alarm and communication systems will be tested at least biennially with a co-operative effort between the RMGC facility and the local Police and Fire Departments. This testing is the responsibility of the Emergency Co-ordinator. These tests will be documented.

16.3 Emergency Response Equipment Deployment Drills

At least biennially, the fire truck and/or ambulance will be deployed in a call-out drill. This drill will be conducted by the Health and Safety Department in conjunction with the affected emergency response team. The drill shall be documented and records maintained in accordance with MP-11, "Management of Environmental and Social Management System Records."

16.4 Evacuation and Fire Drills

At least annually, there will be a site-wide fire and evacuation drill. This drill shall be conducted by the Emergency Co-ordinator and the Health and Safety Department. This drill shall also be documented, with records maintained in accordance with MP-11, "Management of Environmental and Social Management System Records."

17 Review, Amendment and Maintenance of the Emergency Plan

17.1 Document Control

As noted in the preface to this *Plan*, the current approved version of this document shall be distributed in accordance with MP-05, “Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents.”

- Co-ordinator and shall be included in the Emergency Preparedness and Spill Contingency Plan.
- Unauthorised copying or distribution of the *Emergency Preparedness and Spill Contingency Plan* shall be expressly prohibited;
- All distributed copies of the *Emergency Preparedness and Spill Contingency Plan* shall be maintained in a secure location that is not accessible to unauthorised persons;
- Revisions of the *Emergency Preparedness and Spill Contingency Plan* (whether individual updated pages or the entire *Plan*) shall be sent to all persons or entities on both the internal and external distribution lists. All outdated versions shall be physically retrieved and destroyed; and
- When distribution of the *Emergency Preparedness and Spill Contingency Plan* to a person or entity is no longer deemed necessary, that copy shall be retrieved and maintained (or destroyed) by RMGC.

17.2 Plan Review and Updates

Annual review of the document control procedure, MP-05, “Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents,” shall be performed to ensure that the procedure remains effective in control and distribution of the *Emergency Preparedness and Spill Contingency Plan*. In addition, this *Plan* shall be reviewed at least annually and after every Level I and Level II emergency in which the *Plan* is implemented. This review is the responsibility of the Emergency Co-ordinator. The purpose of the reviews will be to:

- determine if the *Emergency Plan*, emergency response organisation, and emergency procedures are adequate or need to be modified;
- amend the *Plan* to be current with facility operations, equipment, and personnel;
- amend the *Plan* to be consistent with the community emergency plan;
- obtain the RMGC management approval; and
- ensure that all distributed copies of the *Plan* are current.

References

Environmental and Social Management System References⁴

Cyanide Management Plan

Roşia Montană Project Environmental and Social Management Plan

Environmental and Social Monitoring Plan

Project Meteorological Station Operation Manual

Occupational Health and Safety Plan

Roşia Montană Environmental Database

Stream Flow Measurement Process Operation Manual

Tailings Facility Management Plan

Waste Management Plan

RMGC Standard Operating Procedures Manual

- CN-08, “Emergency Power Generation for Cyanide Handling Equipment”
 - EM-01, “Emergency Incident Investigation, Reporting, and Recordkeeping”
 - EM-02, “Emergency Response Preparedness”
 - EM-03, “Emergency Response Equipment – Maintenance, Inspections, and Testing”
- EM-04, “Alcohol Testing for Drivers/Equipment Operators”
- EM-05, “Hazardous Material Storage and Transfer Operations”
 - EM-06, “Facility Evacuation and Evacuation Accounting Procedures”
 - EM-07, “Site Security”
 - EM-08, “Management of Explosives”
 - EM-09, “Management of Fuel Storage and Fuelling Facilities
 - EM-10, “Field Fuelling Operations”
- EM-11, “Management of Fuel/Hydrocarbon Spills
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⁴ Note: all documents listed are controlled documents per Section 4.5 of the Roşia Montană *Environmental and Social Management Plan*; current approved versions will be assumed to apply in all cases.

- EM-12, “Management of Reactive Chemical Spills”
- EM-13, “Emergency Use of Force Policy”
- EM-14, “Emergency Site Access Plan (Aerial and Terrestrial)”
- HS-02, “Electrical Safety”
- HS-03, “First Aid /Medical Attention”;
- HS-04, “Hazard Communication”
- HS-05, “Hearing Conservation”
- HS-06, “Respiratory Protection”
- HS-07, “Life Safety Evacuation and Egress”
- HS-08, “Equipment Lockout/Tagout”
- HS-09, “Personal Protective Equipment”
- HS-11, “Confined Space Entry”
- HS-12, “Housekeeping”
- HS-13, “Working Surfaces, Ladders, and Scaffolding”
- HS-14, “Fall Protection”
- HS-15, “Fire Protection”
- HS-17, “Employee Safety Training, Drills, and Meetings”
- HS-18, “Blasting Safety”
- MP-05, “Review, Approval, Controlled Distribution, and Update of Environmental and Social Management System Documents”
- MP-11, “Management of Environmental and Social Management System Records”
- MP-12, “Corrective and Preventive Action for Environmental and Social Management System Non-conformances”
- NM-02, “Test Blasting and Development and Implementation of Quarry or Pit-Specific Blasting Plans”
- TF-07, “TMF Air Monitoring/Meteorological Facility Operation”
- WT-02, “Management of Meteorological, Flow, and Environmental Quality Data”

Community Emergency Plans (**TBD**; from communities adjacent to the mine site as well as major transportation corridors)

ⁱ ECOIND et al., 2005; Roşia Montană Project Environmental Impact Assessment

ⁱⁱ Emery, A., 2005; Good practice in emergency preparedness and response; UNEP/ICMM, September 2005.

ⁱⁱⁱ International Cyanide Management Institute, July 2005; *The International Cyanide Management Code*; <http://www.cyanidecode.org/thecode/cyanidecode.html>

^{iv} DuPont (no date); *Sodium Cyanide: Properties, Uses, Storage, and Handling*; E.I. duPont de Nemours and Company, DuPont Chemical Solutions Enterprise.

^v Ibid.

^{vi} Government of Romania, 2000; Government Emergency Ordinance No 78/2000, *Waste Management*