Emergency Response Plan

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Carol Lake

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Site Emergency Response Plan
Orica Carol Lake

Orica Canada Inc.

Labrador City, Newfoundland Labrador

REVISION HISTORY

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DISTRIBUTION

This plan covers those actions to be carried out by all site personnel during a site emergency.

This plan does not cover external emergencies (i.e. incidents involving Orica products at offsite locations), which are covered by separate documents.

This document is a controlled document and must not be copied or passed on to other persons without permission of the Site Team Leader.

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1 INTRODUCTION

1.1 Purpose

This plan has been prepared for the Carol Lake manufacturing facility of Orica Canada Inc.
The purpose of this plan is:

(a) to mitigate the on-site and off-site effects of any major incident that may occur at the Site

(b) to facilitate a coordinated response to any emergency on the Site and to provide for appropriate assistance from external emergency services

(c) to ensure communication of all vital information as soon as possible

(d) to facilitate resumption of normal operations when appropriate

(e) to provide for training personnel in the handling of emergencies, and to maintain a high level of preparedness

(f) to provide a basis for updating and reviewing Emergency Response Plans.

The overall structure of the Emergency Response Plan has been designed first to provide a user-friendly practical tool for Orica Canada Inc. employees to prepare for emergencies, and second to provide the detailed information to support the plan and comply with Municipal, Provincial and Federal Regulations.

Section	Title	Content
Section 1	Introduction	Purpose and philosophy of the ERP
Section 2	Facility and Surrounding Area	Descriptive information relevant to the ERP – processes, materials handled, surrounding populations
Section 3	Emergency Scenarios	Types and levels of emergency scenario, potential consequences, assumptions, etc. – the risk basis for the ERP
Section 4	Resources	An overall description of the resources available in the event of an emergency and the method for their mobilization.
Section 5	Contact Information	How contact information is recorded and verified
Section 6	Communications with the Public	How information is relayed to the public and general information for the public regarding potential emergency situations.
Section 7	Reporting	Individual reporting responsibilities and methods.
Section 8	Emergency Response Scenarios	Detailed description of potential scenarios identified during the conduct of risk determinations and the methods for addressing those situations.
Section 9	Spills and Clean-Up	The methods for addressing spills and clean-up procedures for incidents occurring on-site.
Section 10	Natural Disaster Response	Potential natural disasters and the appropriate response measures.
Section 11	Emergency Response Overview	Initiation of Site Emergencies, response and resources available to assist.
Section 12	Terminating Emergencies	Procedures to follow on termination of any site emergency.
Section 13	Employee Safety Concerns	The method for receiving and recording any concerns regarding safety as presented by employees.
Section 14	Review and Revision	The methods used for conducting reviews and revisions of the Emergency Response Plan
Section 15	Approval	The statement of approval of the Emergency Response Plan
Section 16	Audit	The requirements for recording ERP audit information.
Attachments	A1-A6	Detailed supporting information and tools for use in emergency response

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1.2 Scope

This plan deals specifically with the effects and mitigating actions of incidents that occur on-site (On-Site Emergency), and incidents that impact off-site (Off-Site Emergency). It does not deal with emergencies involving company products off-site eg. A transport incident, or product leakage at a customer's premises.

The Orica Site Emergency Response Plan is maintained by the Site Team Leader. Further explanation of the content of this plan can be obtained by contacting him/her directly as per the contact details provided in Attachment A1. The Site Team Leader, as the ERP Planning Coordinator, has the full authority to ensure that adequate attention is given to all aspects of the plan and to the needs of all personnel within their organization involved in the plan.

1.3 Policy Statement

Orica maintains a Safety Health and Environmental (SH&E) policy that states we will manage all our activities with concern for people and the environment and will conduct our business for the benefit of society and without compromising the quality of life of future generations. In particular, Orica will:

- Strive to ensure our facilities operate to the highest standards to protect our employees, contractors, neighbours and the environment.
- Continue to seek ways to efficiently use materials and energy.
- Sell only those products that can be produced, transported, stored, used and disposed of safely.
- Provide appropriate information and/or training on the safe use and disposal of our products to our customers and consumers.
- Seek to develop new or improved products and processes to improve the contribution we make to the quality of people's lives and to minimise the impact on the environment.
- Require every employee and contractor working for us to comply with relevant legislation and with this policy, and we will provide them with the necessary training.
- Encourage employee initiatives that contribute to a safer and improved environment at work, at home and in the community.
- Set challenging targets and measure progress to ensure we continuously improve our safety, health and environmental performance.
- Communicate openly about our activities and report progress on our safety, health and environmental performance.

Orica makes this commitment to our employees, contractors, customers, shareholders and the community as we work towards our vision of "No injuries to anyone, ever. Value people and the environment"

This policy is maintained by the Managing Director and Chief Executive Officer. The management of each operation is responsible for its compliance with this policy and emergency planning. Orica has established standards and audit for compliance with these standards. Reports on operational performance are prepared and distributed throughout all managerial levels.

1.4 Risk Determination

A formal risk estimation was conducted through the completion of a series of detailed "Hazard Studies" in accordance with Orica Model Procedures (MP-ET-004 Hazard Studies). Potential natural and man-made hazards have been identified and are discussed in this Emergency Response Plan. Copies of all associated

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Hazard Studies are kept on file in the Orica North American SH&E Risk Register. General risk scenarios include:

Type	Description
Fire/Explosion	Fire/explosion emergencies may occur in certain areas across the site. The most likely areas for a fire/explosion emergency are in the areas where flammables and/or combustible materials are present. These areas include fuel storage, decontamination bay, ammonium nitrate storage, maintenance garage or explosive magazines. External fires may present a threat to the site. These could arise either in neighbouring facilities or from grass fires. The site addresses external fires in the same way as a general onsite fire scenario.
Spills	Spillage of significant quantities of any of the dangerous goods could result in an emergency situation (depending on location of the spill). The effects of spillages vary depending on volume and on the material involved. Corrosive liquids can create personnel and environmental hazards. In the case of corrosive and toxic materials the major concern is to ensure that all personnel dealing with the emergency are correctly protected to prevent contact with these chemicals.
Natural Events	Natural events such as flood, grass fire, earthquake, tornado or similar situations are addressed using the appropriate emergency procedures applicable to fire and spills, in the remote circumstance of their occurrence, depending on how they affect the facility.
Impact Events	Road vehicles and aircraft present a remote possibility of impact with plant or storage facilities. Emergency situations caused by impact of road vehicles or aircraft are likely to be similar to those emergency types described previously i.e. fire, explosion, or spillage. Normal plant emergency procedures will be used.
Civil Disturbances	Demonstrations, riots and bomb threats may result in emergency situations. Specific procedures for dealing with bomb threats are detailed in separate documentation. A bomb warning will not automatically lead to the declaration of an emergency but it may do so.
Environmental Incidents	Environmental incidents may include emissions to air, water or land, including noise and odour, which could have impact on neighbours.
Medical Emergency	Medical emergencies cover all incidents that may lead to a disabling injury to personnel visiting or working on site. The site is manned with trained first aiders at all times. They are trained to deal with poisoning, burns and general injuries. The effects of poisoning vary widely and depend on the quantity, method of contact and chemicals involved. Site first aid personnel are trained to refer to MSDS for patient management.

1.5 Legislation and Industry Codes of Practice

During the preparation of this Emergency Response Plan, legal authority in the way of local, provincial and federal laws were identified. Regulatory agencies have been consulted as required and their input has been included in the development of this plan.

1.6 Philosophy

The emergency response philosophy is based on a minimum manning level for the site. The on-site personnel shall be trained to manage appropriate response to emergencies identified in this plan. This may involve managing an emergency with resources from within the shift team, or coordinating assistance from other site personnel, or from the emergency services. The intention is to minimise the number of people exposed to the risks involved in emergency response; however, there are extensive onsite and offsite resources that can be called upon to assist the shift team if required.

The overall approach of site personnel to emergency response is based on the following priorities:

Priority	Objective	Corresponding Actions
1	Ensure safety of personnel	Evacuate from affected area and account for personnel
2	Attend to injured personnel	Rescue of injured persons and treatment of injuries
3	Contain/combat the incident	Respond to the incident in order to bring it under control

Orica's emergency response plan is based on a philosophy that site personnel, lead by the site co-ordinator, shall take all actions necessary to manage an emergency and bring the incident under control, within the constraints of the above priorities. The emergency plan also reflects the possibility that control may need to be handed over to the emergency services, but that Orica may need to manage the incident for up to the first 30 minutes.

As a result of the remote nature of the site there are not any neighbouring residences that would have to be evacuated in the event of an emergency, however it is critical that a well-established and exercised link between the Orica site and the mine site be in place. The Mill on-site is located outside of the 1.6 km radius of the Orica site and would be not be subject to evacuation in the event of an emergency. However, the mine access road and tailing pump house are located within the 1.6 km radius and would be affected, (road blocks) by any emergency at the Orica facility.

The roles and responsibilities of all Orica site personnel are detailed further in this document.

It is intended that this plan describe in full all aspects of emergency planning for the Site. It therefore is a large document, which is used for development of emergency plans and training but is not readily useable by designated emergency responders during an emergency. It is important that emergency responders have access to suitable information that allows them to rapidly respond to an emergency.

An "ERP Short Version" has been prepared to assist first responders in the unlikely event of an incident. A copy of this "Short Version" is at Attachment A4. Updated copies of this ERP Short Version are to be distributed to local first responders on an annual basis.

2 FACILITY AND SURROUNDING AREA

2.1 Nature of Operations

The site consists of raw materials storage for the manufacturing, storage and distribution of bulk explosives located on the IOCC mine. The site located approximately 10 km east of Labrador City, Newfoundland Labrador. The facility is used to manufacture/supply external Orica customers as well as the IOCC mine site. The site plan for the facility is shown in Attachment A3.

The scope of operation for this factory site is the manufacturing and storage of bulk explosives emulsion, (ANE) and the storage and transfer of Ammonium Nitrate prill, (ANP). The site will receive raw materials via rail and road. Orica Canada operates an explosives storage and distribution facility at the I.O.C.C. Mine on land owned by the Iron Ore Company of Canada. The facility is used to supply the Mine with explosive

product for use in the open pit as well as the Dolomite Site. The site has the capability to supply external customers also.

The site has buildings consisting of office, service garage (S-1), L-1, M-1C, M-1E, M-2, M-2B, fuel station, M-3B, M-4A, M-6, M-5, M-7, M-9.

Office Building- 32' x 48' steel fabricated building with Rockwool insulation and gyproc wall, floors are concrete. Electrically heated.

S-1 Service Garage-Butler type

M-1C Heater and boiler trailer- one standard highway van, external metal walls, plywood lining and supported by metal jacks. Standard approved electrics for two electric boilers and two compressors.

M-1E Solution Storage Tank- 7.3m x 6 m high: 326 metric ton capacity, S.S. Construction with urethane foam insulation.

M-3B AN Transfer Building- Steel frame metal clad open shed. Equipment comprises an underground auger and an inclined auger to load Ammonium Nitrate into ANFO mix trucks, and a hydraulic winch (complete with power pack) to spot rail cars over the underground auger.

M-4A Truck Storage/ Wash Bay- Concrete floor, concrete block walls, wooden roof. Vapour tight electrics. Class II, Division II (NEMA 4x enclosures).

L-1 (M-2) Manufacturing Building- This building has the following contents: 1 ½ Ton Elk Mixer and Blender with control panels, 12 ton heated oil phase tank, 9 ton heated fuel tank, two 20 Ton DN-14 tanks, 36 Ton AN Solution tank. Adjacent to the L-1 area is a 90 Ton AN Prill car with an auger for transfer and a 10 Ton AN Prill hopper storage bin inside L-1 building. Also inside the L-1 building there is a 5 Ton Gassing tank, one oil phase transfer pump, one solution pump, one DN-14 transfer pump, one gassing transfer pump, laboratory and samples.
The laboratory is on the mezzanine and is used for Quality Control Checks on all products. Samples are removed on a daily basis.

This building has a concrete floor, steel frame, corrugated metal external walls and roof, insulated Masonite lined. Interior walls are covered with Aluminium sheeting to 1.2 m height from floor. Vapour tight electrics and totally enclosed motors. (In compliance with Canadian Electric Code standards for hazardous locations ie Class II Division II with NEMA 4x enclosures). This building is heated with steam and rough neck heaters.

Forklift in L-1 is a Toyota 8FDU25

S-7 Fuel Station- consists of two tanks, one for dyed diesel (45,000L) and one for Clear diesel (4,500L) capacities.

M-5, M-7, M-9 Magazine Complex- a 18.3m x 15.2m metal frame structure with metal clad exterior and wood clad interior. Walls are filled to explosive level in magazine. Magazine is provincially licensed. Contains three type IV magazines.

M-5-Type IV explosive magazine, 9.8m x 3.7m x 2.1m, licensed for 20,000kg
M-7-Type IV explosive magazine, 8.8m x 3.7m x 2.1m, licensed for 20,000 kg
M-9-Tpyp IV explosive magazine, 9.8m x 3.7m x 2.1m, licensed for 20,000 kg

M-6 Detonator Magazine-Type IV Detonator magazine, 3.6m x 10.9m x 2.1m, licensed for 40,000 units

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2.2 Dangerous Goods Onsite

Dangerous goods handled in quantities at the Carol Lake Site. The major inventories are of the following products:

Material	Storage Type	Quantity
ANP	Bulk @ L-1A and Rail Cars Rail cars parked (4)	97,000 kg 360,000 kg
AN Solution	Bulk @ 326 Te tank(M-1E) & Make-up tank (L-1) Rail cars parked - (10)	350,000 kg 860,000 kg
ANE (Emulsion)	L1B	60,000 kg
Diesel Fuel	Bulk @ S-7	49,700 L
Sodium Nitrate	Bags @ M-2	15,000 kg
Sulfamic Acid	Bags @ M-2	15,000 kg
Glycol	Cubes @ M-2	15,000L
Soda Ash	Container @ M-2	75 kg
Package explosives and detonators	Magazines area	60,100 kg

There are numerous other smaller inventories of dangerous goods used within the process, with some in minor quantities. Material Safety Data Sheets (MSDS) containing details of the major hazardous materials on site are held in the main office and the majority can also be accessed Orica Intranet Site.

Enclosed details regarding the two substance controlled under the Environmental Emergency Regulations: Ammonium Nitrate in its solid form (ANP) and Ammonium Nitrate in its liquid form (ANS)

Orica's ANP and ANS storage locations are segregated from mining operations (located approx. 1 km away from the mining facilities).

Substance Name	Ammonium nitrate (solid form) = ANP
Properties	• **Physical state:** Solid. • **Appearance:** grey or white prills. • **Odour:** None. • **pH:** 5 -6 (0.1 M solution in water). • **Fusion point:** 160 – 165 °C (320 – 329 °F). • **Decomposition temperature:** Spontaneous decomposition at 210 °C (410 °F). • **Flammability (solid, gas):** non-combustible but a strong comburant. Fire accelerant. • **Bulk density:** 0.8 – 0.84 g/cm^3. • **Solubility:** 76 g/ml at 80 °C (176 °F). Soluble in alkalis, alcohols, acetone. Insoluble in ether.
Characteristics	• **Environmental precautions:** Prevent egress into sewers or public waterworks. Hazardous waste due to the risk of explosion. • **Reactivity:** Comburant: Highly exothermic substances and preparations when in contact with other substances, particularly when in contact with flammable substances. • **Hazardous decomposition products:** Carbon oxides (CO, CO_2).
Consequences	Symptoms an most severe effect (acute and delayed): • **General:** Eye, skin airways irritation. • **Inhalation:** likely to irritate airways and to cause sneezing, couching and a burning sensation of the throat accompanied by a chocking sensation and breathing difficulties. • **Skin contact:** Can cause skin irritation.

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	• **Eye contact:** Causes severe eye irritation. • **Ingestion:** Can be harmful when ingested. • **Chronic symptoms:** Repeated or prolonged exposure can cause damages to the lungs. Identifying dangers: • Can accelerate fire, carburant. • Can irritate the eyes. • Hazardous waste due to risk of explosion.
Controls	• **Appropriate technical controls:** Eyewash stations and decontamination showers must be made available within proximity of the areas of possible exposure. Make sure that all electrical components/systems meet the requirements of the national electrical code to prevent static electricity, use appropriate grounding practices. The product must be handled using a closed system under highly controlled conditions. Ensure that all national and local regulations are observed. • **Personal protection equipment:** Gloves, protective clothing, dust masks when using aerosols, safety goggles. • **Materials for protective clothing:** Wear fire-resistant clothing. • **Hand protection:** Wear chemical resistant protective gloves. • **Eye protection:** Chemical goggles or safety glasses. • **Skin and body protection:** Wear appropriate protective clothing. • **Respiratory protection:** Use an approved respiratory protection device where exposure above the occupational limits is expected.
Storage	The product must be stored in a dry, fresh and well-ventilated area, away from the rain and incompatible materials such as: alkalis, combustible materials, reducing agents, organic substances, powdered metals and acids. The products is stored in the following areas: • **L-1A Snow Shed and south of the Office Building on the rail line.**
Environment	• ANP is stored in ANP rail cars and the ANP Hopper located in L-1 • The site is a wooded area. • Emergency scenarios are listed under Section 8.

Substance Name	**Ammonium nitrate (liquid form) = ANS**
Properties	• **Physical state:** Liquid. • **Appearance:** Opaque. • **Odour:** Lightly ammoniacal. • **pH:** 5 -6 (0.1 M solution in water) • **Decomposition temperature:** 210 °C (410 °F) • **Density:** 1.3 – 1.38 g/ml
Characteristics	• **Environmental precautions:** prevent egress into sewers or public waterworks. Hazardous waste due to the risk of explosion. • **Reactivity:** Comburant: Highly exothermic substances and preparations when in contact with other substances, particularly when in contact with flammable substances. • **Hazardous decomposition products:** Carbon oxides (CO, CO_2), nitrous oxides.
Consequences	Symptoms an most severe effect (acute and delayed): • **General:** Hot ammonium nitrate can be absorbed by burnt skin and harmful effects can occur rapidly. Cause vasodilation and methemoglobinemia. Eyes, skin and respiratory irritation. • **Inhalation:** likely to irritate airways and to cause sneezing, couching and a burning sensation of the throat accompanied by a chocking sensation and breathing difficulties. • **Skin contact:** Can cause skin irritation. Under normal handling conditions, the product is hot and can cause severe thermal burns. • **Eye contact:** Causes severe eye irritation.

	• **Ingestion:** Can be harmful when ingested. • **Chronic symptoms:** Repeated or prolonged inhalation can cause damages to the lungs. Identifying dangers: • Can accelerate fire, carburant. • Can cause a severe eye irritation. • Hazardous waste due to risk of explosion.
Controls	• **Appropriate technical controls:** Eyewash stations and decontamination showers must be made available within proximity of the areas of possible exposure. Make sure that all electrical components/systems meet the requirements of the national electrical code to prevent static electricity, use appropriate grounding practices. The product must be handled using a closed system under highly controlled conditions. Ensure that all national and local regulations are observed. • **Personal protection equipment:** Gloves, protective clothing, safety goggles. • **Materials for protective clothing:** Wear fire-resistant clothing. • **Hand protection:** Wear chemical resistant protective gloves. • **Eye protection:** Chemical goggles or safety glasses. • **Skin and body protection:** Wear appropriate protective clothing. **Respiratory protection:** Use an approved respiratory protection device where exposure above the occupational limits is expected.
Storage	The product must be stored in a dry, fresh and well-ventilated area, away from the rain and incompatible materials such as: alkalis, combustible materials, reducing agents, organic substances, powdered metals and acids. The products is stored in the following areas: • **M-1E ANS Unloading Area.**
Environment	• ANS is stored in ANS rail cars, 320 Te ANS Tank and L-1 Make-up Tank. • Emergency scenarios are listed under Section 8.

2.3 Location

The site is located on the IOCC Mine site approximately 10 km east of Labrador City, Newfoundland Labrador.

Map coordinates for the site are: N 52 58’ 57.10” W 66 52’ 54.94”

2.4 Security

A card activated gate is located at the entrance to the IOCC Project as well a second gate is located at the plant entrance. Warning signs are posted on the access road and the site perimeter. The site access gate remains closed and locked when personnel are not present. There is a video camera mounted at the office which is monitored by IOCC Security. IOCC monitor the access road of the plant during night shifts to ensure no trespassing.

All visitors are provided a site-specific induction indicating SH&E awareness, emergency procedures and site contacts etc.

Based on the nature of the material located on-site physical security measures are not discussed in this emergency response plan but are available through other on-site documentation.

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3 EMERGENCY SCENARIOS

3.1 Definitions of Emergency

An emergency is any hazardous or potentially hazardous situation where there is danger to personnel, property or the environment generally. It may also be described as a situation that cannot be immediately brought under control by staff on duty using available resources, where serious injury or death could be incurred, where property damage could occur or where serious environmental consequences could result.

Note: If there is any doubt as to whether any hazardous situation constitutes an emergency, **then it must be treated as an emergency.**

There are 3 incident levels covered by the emergency plan:

- Local Site Incident
- Level 1 - Site Emergency
- Level 2 - Off Site Emergency

Local Site Incident (Minor)

Definition: A situation, with a degree of potential danger, which is a sudden departure from usual operations, but which can be immediately or quickly brought under control using resources at hand or readily available at the site.

Typical examples of a local plant incident are:

- Localized utility failure which creates a hazard
- Small chemical spill within a contained area
- Any single injury which is disabling or not disabling
- Minor equipment or property damage

The on-site personnel can manage these incidents using existing in place procedures.

Level 1 - Site Emergency (Major)

An incident which cannot be contained and/or controlled locally, and which presents potential danger to other areas within the site, or has potential to escalate and pose a threat, to personnel safety, environmental damage, and major property or equipment damage **within the site boundary**.

This type of emergency may require assistance from external emergency services, if onsite resources are insufficient to prevent escalation of the incident.

Typical examples of a site emergency are:

- Local fire
- An incident involving disabling injuries to more than 1 person
- Minor explosion eg contained explosion with no knock-on effects
- Small unconfined chemical spill
- Rescue of incapacitated people
- Utilities breakdown involving danger to plant or personnel
- Bomb threat
- Civil disturbance

Level 2 - Off-Site Emergency (Significant)

A significant Site Emergency which cannot be contained or controlled by site personnel, and which may affect neighbouring properties.

An offsite emergency will always require the assistance of external emergency services and may also require assistance from organisations such as NR Can, municipal / provincial / federal agencies, etc.

Examples of an off-site emergency are:

- Major fire
- Significant explosion
- Significant unconfined chemical spill
- Major natural event, e.g. Earthquake, flood

Decision Criteria for Emergency Level

Based on the above descriptions, the key criteria that will be used by the site emergency co-ordinator to determine which emergency level applies are as follows:

- Extent of affected area – contained onsite or capable of impacting offsite. This will be judged based on the size and location of the release, the condition of the released material, weather conditions, etc.
- Potential to escalate to other equipment or site areas – judged based on initial extent of damage, scale of explosion or fire and proximity to other equipment.
- Ability of local site personnel to manage situation vs. need for additional support – judged based on the number of any injuries and the scale of response activities required.
- Emergency caused by offsite threat (natural or man-made)

3.2 Organization Roles and Responsibilities

An organizational flow chart outlining responsibilities for decision-making has been developed to guide response to any potential emergency. As each situation will be unique, this flow chart is not exhaustive but does identify the scope of the participants' activities for notifications and response. Personnel responsibilities are found in the tables to this section.

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Figure 3.2 – Organization Flow Chart

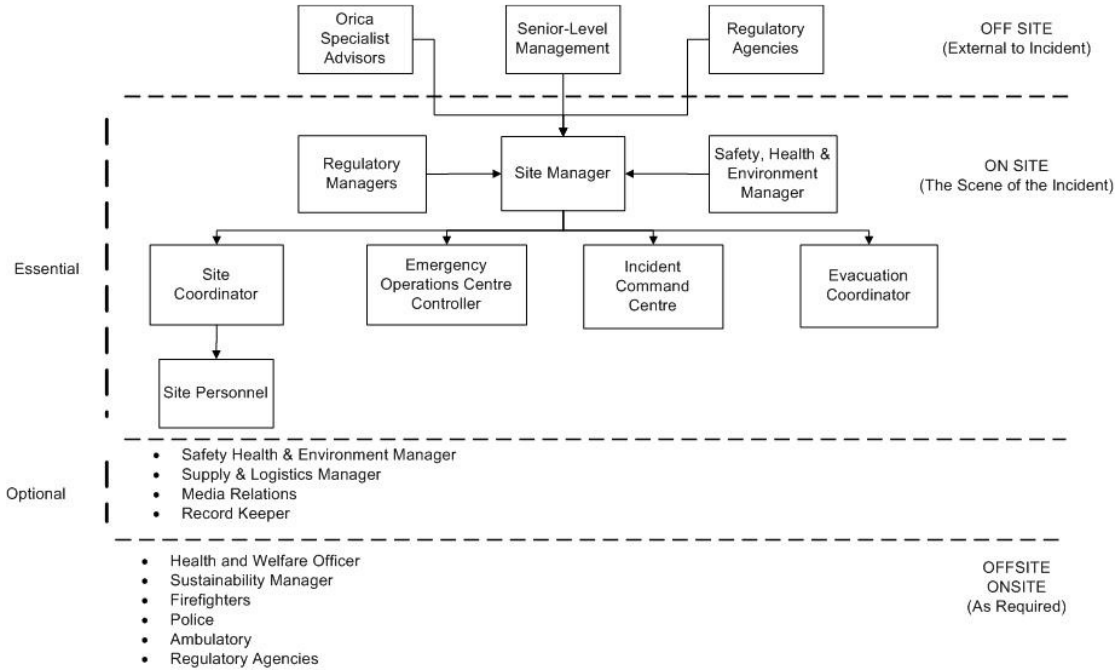

Table 3.2.1 – OFFSITE PERSONNEL

Title	General Description	Specific Responsibilities
Senior Level Management	• VP Orica Canada • District Director – Eastern Region • SH&E Manager – Canada • Compliance Manager - Canada	• Provide oversight and control of Site activities • Provide appropriate disciplinary action when unsafe acts or practices occur • Coordinate with higher corporate offices • Coordinate with regulatory agencies • Report significant event / incidents in accordance with established law
Orica Specialist Advisors	• Sustainability • Engineering • Medical • Legal • SH&E	• Provide advice in plan development • Conduct site audits • Provide specialist advice in the event of significant events / incidents.
Regulatory Agencies	• ERD • Transport Canada • NR Can • MOE • Etc.	• Ensure legal compliance through inspection / review

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Table 3.2.2 – ONSITE PERSONNEL

Title	General Description	Specific Responsibilities
Site Team Leader	• Reports to Senior Management • Has authority to direct operations • Assumes total control over site activities	• Prepares and organizes plan review, training, and instruction to site personnel • Obtains permission for site access and coordinates with appropriate officials • Ensures site SH&E requirements are met. • Serves as liaison with public officials • Controls and supervises response to any significant events / incidents. • Mans and operates the EOC in the event of an incident requiring activation of the emergency response plan.
Regulatory Agencies	• ERD • Transport Canada • NR Can • MOE • Etc.	• Completion of post event reports. • Support to any incident investigation.
SH&E Manager	• Reports to Senior Management • Ensures compliance with stated SH&E policy	• Provides support to Site Manager • Liaison between site and senior management • Support to post event investigation
Site Coordinator	• Reports to the Site Team Leader • Supports ongoing operations	• Conduct training and instruction. • Provide support to onsite incidents • Supports any required evacuation response through direct liaison with first response organizations. Acts as evacuation coordinator. • Supports establishment of an ICC if required.

Table 3.2.3 – ONSITE PERSONNEL (OPTIONAL)

Title	General Description	Specific Responsibilities
Health and Welfare Officer	• Provides medical advice	• Assist in post injury rehabilitation • Report personnel status • Assist in any post incident evaluations / provide post incident support.
Sustainability Manager	• Provide advice / direction on SH&E matters to senior management	• Compile post event reports. • Support to any incident investigation. • Provide advice for response to regulatory agencies as required
First Responders	• Operate on the authority of local, provincial or federal agencies.	• Provide specialist advice in plan development • Support any significant event / incident • Support evacuation if required • Support site incident containment • Provide onsite medical support as required
Regulatory Agencies	• ERD • Transport Canada • NR Can • MOE • Etc.	• Completion of post event reports. • Support to any incident investigation.

4 RESOURCES

4.1 Resource Mobilization

It is the responsibility of the Site Manager (or in his absence, the Site Coordinator/lead hand) to properly mobilize all resources required to effectively deal with any emergency. For any Level 1 emergency, local site resources are to be gathered and assembled at a location as close to the emergency site as possible without jeopardizing personal safety. The primary location for assembling response equipment will be located in the yard by the garage complex. Should that not be possible due to the nature of the emergency the alternate location for assembling resources will be at the muster point location toward the south of the plant (IOCC Dump entrance location).

For any emergency requiring the mobilization of external resources the Site Manager (or Site Coordinator in his absence) will be responsible for contacting providers. This could include, but is not limited to mine site operations, heavy equipment, emergency first responders or other third party response providers.

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4.2 Fire Fighting, First-Aid and Response Equipment

Fire extinguishers are located in every building and on all vehicles. The first-aid kits can be found in every truck and also in the office complex, service garage and L-1 building.

4.3 Spill Response Equipment

The Carol Lake site has the following additional spill response equipment available:
The Emergency Response equipment is located in S-D4. The contents of the Emergency Response equipment are outlined below.

EQUIPMENT	DOCUMENTATION
2 X Rubber Rain Suit	1 copy of Carol Lake ERP
3 x Flashlights	1 copy of ERAP
3 x Pairs Rubber Glove	3 x Take 5 with pens
5 x Pairs Work Gloves	Blank Bills of Lading
4 x buckets with lids	4 x Placards each of 1.5D, 1.1D, 1.1B and 1.4B
4 x rolls paper towel	1 x Package Blank Paper
10 x dust masks	1 x Guide to First-Aid
3 x Reflective Vests	3 rolls of 60' plastic liner
10 x Large Garbage Bags	2 x Non-Sparking Shovel
1 x Eyewash Bottle and Solution	4 x 1.5D Placards
1 x First Aid Kit	1 reflective kit (3 per kit)
3 x Safety Glasses	1 x Wilden Pump
100 x Absorbent Pads	2 x transfer hoses
1 x Roll Security (Caution) Tape	
UN Certified Packaging	

4.4 Isolation Points

The resources and locations of isolation points of sources of energy (electrical, fuel, etc) have been identified and are included in the site plan attached at Appendix A3. All personnel are aware of the location of these shut-offs and briefings on their locations are provided to visiting personnel / contractors through the conduct of site inductions.

The main site electrical power is provided by the mine. The MCC room located south to M-1E Storage tank. It contains the electrical switching gear to shut down electrical energy to the plant/buildings and can only be accessed by IOCC electricians for isolation.

4.5 Mobilization of External Agencies

In the event of an incident requiring the mobilization of any external agency, including emergency first responders the following procedures are to be followed:

Personnel	Remarks	Specific Responsibilities
Site Manager	• If on site at the time of the incident. • If ***NOT*** on site at the time of the incident the Senior Site Personnel assumes these responsibilities until relieved by the Site Manager.	• Contact agency using the contact list located at Appendix A1. • Notify mine operations using the contact list located at Appendix A1. • Use the contacts list at Appendix A1 to contact local first responders. • Provide a full description of the event • Provide a contact number for follow-up • Advise if there is a requirement to re-route traffic from the site. • Commence data collection to assist first responders when they arrive (using the checklist in Attachment A5)

4.6 Data Collection Checklist

In the event of an emergency the requirement to ensure that data is collected is essential to support subsequent response activities and provide information to any responding agency. The checklist at Attachment A5 will be used for the purposes of data collection in the event of an emergency. It should be reproduced locally and readily available to all personnel who may be required to liaise with local authorities.

4.7 Assistance Agreements

Orica Canada has a contract in place with Labrador Coating and United Rentals, environmental services companies that operates in Labrador West and with Terrapure. This contract provides resources in the form of equipment and personnel to assist in the event of any incident. The emergency contact number for coordinating an emergency response is included in the emergency contacts list at Attachment A1.

Assistance agreements with the IOCC mine is also in place to assist with the immediate response to an emergency. This includes:

- Fire Fighting
- First Aid Services

5 CONTACT TELEPHONE LISTS

An emergency contact list has been prepared and is at Attachment A1. It is the responsibility of the Site Manager to ensure that this list is updated routinely to ensure accuracy of information. As a minimum this list will be updated annually during the Emergency Response Plan review.

6 COMMUNICATIONS WITH THE PUBLIC

The Carol Lake Site is located on a secure mine site in remote isolation from any full or part time residences. There is no requirement to actively involve local residents in emergency planning there is however a requirement to ensure that mine site personnel operating on site are conversant with the contents of the site emergency response plan.

Emergency Response Plan

If an emergency situation requires a communication to be made to local residents, this responsibility will report to the District Director in accordance with the communication plans and reporting established in such circumstances. This plan is described in the next section.

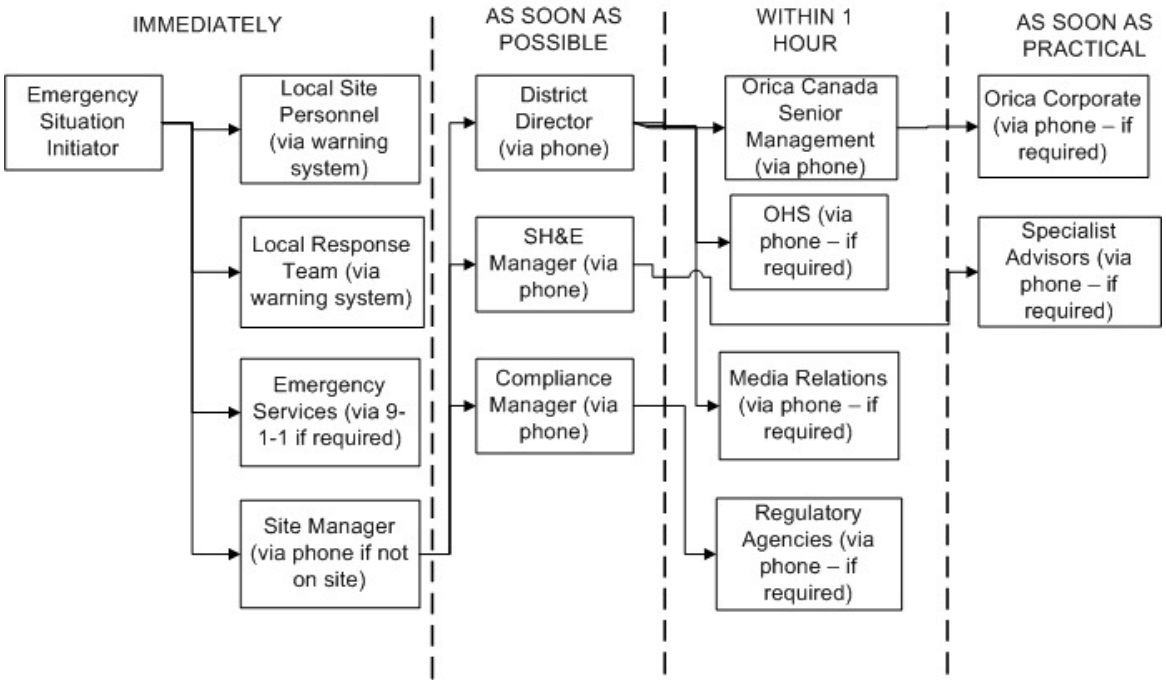
As a minimum, an annual review of this emergency response plan with mine site personnel is required. Mine site personnel are to be encouraged to attend the annual review and table-top exercise to become more conversant with the actions expected in the event of an emergency, including evacuation locations, routes and notification systems.

In addition, a simulation of an environmental emergency is run at least once a year. The simulation must be documented. A register of the results from the reviews is kept for 5 years. This simulation is used for training and continuous improvement purposes, as indicated under section 13.2 of this plan.

7 REPORTING

In the event of an emergency the following minimum reporting responsibilities will be executed.

Figure 7.1



8 EMERGENCY RESPONSE SCENARIOS

There are a number of potential emergency response scenarios that could occur at the site. When an emergency occurs, questions concerning what actions to take immediately arise. To avoid possible panic, planning must be undertaken to develop a plan to reduce the possibilities of judgement errors. Each potential emergency will be unique, however they can be generally categorized to assist on-site personnel in applying the correct approach. The table below summarizes potential scenarios and the appropriate response reference in this plan.

SERIAL	CATEGORY	SUB-CATEGORY	SECTION
1.	Explosives Class 1.1 and 1.5	General	Section 8.1
2.	Explosives Class 1.1 and 1.5	Cargo Fires	Section 8.2
3.	Explosives Class 1.1 and 1.5	Spill or Leak	Section 8.3
4.	Oxidizers	General	Section 8.4
5.	Oxidizers	Spill or Leak	Section 8.4
6.	Flammable Liquids	General	Section 8.6
7.	Flammable Liquids	Fire	Section 8.7
8.	Flammable Liquids	Spill or Leak	Section 8.8
9.	Corrosives	General	Section 8.9
10.	Corrosives	Fire	Section 8.10
11.	Corrosives	Spill or Leak	Section 8.11
12.	Electrical Fire	General	Section 8.12
13.	Clothing Fires	General	Section 8.13
14.	Truck Fires / Explosions	General	Section 8.14
15.	Magazine Fires / Explosions	General	Section 8.15
16.	Fire at Diesel Tank	General	Section 8.16
17.	Spill during transport using a road tanker or a freight car	Spill	Section 8.4 Section 8.5
18.	Spill during product handling – decantation	Spill	Section 8.4 Section 8.5
19.	Spill due to leaking tanks (product leak)	Spill	Section 8.4 Section 8.5

8.1 Explosives Class 1.1 and 1.5

Explosives of Class 1.1 and 1.5 will burn and may detonate En Masse at any time. In the event of an emergency involving Class 1.1 or 1.5 materials the following general procedures should be followed:

- ISOLATE the hazard area
- Keep upwind and use terrain and buildings for shielding
- Keep unnecessary people away
- Keep away from windows

If a fire or heat threatens an explosive product, or if an explosion has occurred, evacuate all personnel within a 1,600m distance in all directions and maintain that distance until at least one hour after all explosions and/or resultant fire has burnt out.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police/RCMP and the Regional Fire

Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.
- Request that traffic be rerouted away from Orica property until notified otherwise.

Ensure that the MSDS is referred to for any products involved to obtain the required health response measures. Ensure that in the event of any evacuation of personnel that have been affected to a medical facility that a copy of the relevant MSDS is provided to Emergency Response personnel.

Nitrogen oxide vapours from burning explosives are extremely toxic. They vary from light brown in colour in low concentrations to deep rich orange-brown in high concentrations and at high temperatures. Prolonged breathing of fumes in concentrations of as little as 5 ppm can cause lung congestion, pneumonia and potentially death. Remain upwind of fires involving explosives. Further, if it is necessary to move downwind of a fire ensure the use of self-contained breathing apparatus (SCBA).

8.2 Cargo Fires

DO NOT FIGHT FIRE involving explosives if cargo is subjected to heat.

If possible, and without risk, use unmanned hose holders or monitor nozzles from maximum distance to prevent fire from spreading to the cargo area.

- EVACUATE surrounding area to 1,600meters
- DO NOT MOVE CARGO that was exposed to heat except under the supervision of a specialist.

Vehicle and Equipment. Use dry chemical, sand, or flooding quantities of water. If possible, remove tractor from cargo trailer. Pay special attention to tire fires as re-ignition may occur.

8.3 Spill or Leak

In the event of a spill or leak the following precautionary measures are to be undertaken:

- ELIMINATE all sources of ignition;
- DO NOT touch damaged vessels or packages containing spilled material
- DO NOT operate radio transmitters within 100 meters of electric detonators
- DO NOT clean-up or dispose of material EXCEPT under supervision of a specialist.
- ***NOTE: Contact the SHE Manager or Compliance Manager for instruction on how to legal transport the recovered product on public roads (TDG Regulations)***

8.4 Oxidizers

In the event of a fire any attempts to smother a fire involving these products will be ineffective as they are their own oxygen source. These products may detonate if contaminated with organic material or oxidisable material or if they are heated while confined.

Emergency Response Plan

In the event of an emergency the following immediate actions are required:

- ISOLATE the area
- Keep Upwind
- Keep unnecessary people away
- Keep out of low areas
- Evacuate if large quantities of material are involved.

If a large road trailer, or a loaded bulk truck is involved in a fire, consider initial evacuation for 1,600 meters in all directions and maintain that distance until at least one half hour after all explosions and/or resultant fire has burnt itself out.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police/RCMP and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.
- Request that traffic be rerouted away from Orica property until notified otherwise.

Ensure that the MSDS is referred to for any products involved to obtain the required health response measures. Ensure that in the event of any evacuation of personnel that have been affected to a medical facility, with a copy of the relevant MSDS is provided to Emergency Response personnel.

Nitrogen oxides vaporous from burning ammonium nitrate are extremely toxic. They vary from light brown in color in low concentration to deep rich orange-brown in high concentrations and at high temperatures they are extremely toxic. Prolonged breathing of 5 ppm can cause lung congestion, pneumonia and finally death. Remain upwind of ammonium nitrate fires. If it is necessary to go downwind, ensure use of self-contained breathing apparatus.

First aid should be applied to any person who may have been exposed to even light concentrations of ammonium nitrate fumes. The individual should be carried to a fume free area and placed 3/4 upright. Under no circumstances should they walk or otherwise exert themselves. Keep them warm and quiet. Oxygen should be given if there is difficulty in breathing, but no further therapy should be given except under doctor's orders. If the individual is not breathing, apply artificial respiration.

Emergency Response Plan

8.5 Oxidizers Spill or Leak

In the event of a large spill or leak of Class 5 product the following procedures are to be followed:

- ELIMINATE all sources of ignition
- Avoid contact with combustibles (wood, paper, oil, clothing, etc)
- Stop the leak if it is safe to do so.
- AVOID getting water inside the containing vessel
- DIKE to prevent entry into waterways or sewers
- CONTACT assistance for disposal.
- CONTACT the necessary authorities

8.6 Flammable Liquids

In the event of an emergency involving flammable liquids the following guiding procedures shall be undertaken:

- REMOVE any potential source of ignition (in the event of a spill / leak)
- ISOLATE the area
- Keep Upwind
- Keep unnecessary people away
- Keep out of low areas

If a tank is involved in a fire ISOLATE for 800 metres in all directions and consider initial evacuation for 800 metres in all directions.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police/RCMP and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.
- Request that traffic be rerouted away from Orica property until notified otherwise.

In the event of an exposure to personnel move the victim to fresh air, provide artificial respiration if the victim is not breathing. Remove and isolate any contaminated clothing and shoes. In the event of contact with the substance, immediately flush skin or eyes with running water for at least 20 minutes. Wash exposed skin with soap and water. In the case of burns, immediately cool affected skin for as long as possible with cold

water. Do not remove clothing if adhering to skin. Ensure that the MSDS is referred to for any products involved to obtain the required health response measures. Ensure that in the event of any evacuation of personnel that have been affected to a medical facility that a copy of the relevant MSDS is provided to Emergency Response personnel.

8.7 Flammable Liquids – Fire

In the event of a fire involving flammable liquids it is important to note that these products have a very low flash point. Use of water spray when fighting fire may be inefficient. Ensure that any fire is fought from the maximum distance possible or through the use of unmanned hose holders. Cool any containers with flooding quantities of water until well after the fire is out to avoid re-ignition. Withdraw immediately in case of rising sound from venting safety devices or discoloration of the tank.

In the event of a small fire:

- Use dry chemical, CO2, water spray or foam.

In the event of a large fire:

- Use water spray, fog or regular foam – Do NOT use straight streams
- If possible, move containing vessels from fire area (if there is no risk to people

8.8 Flammable Liquids – Spill or Leak

In the event of a spill or leak of flammable liquids the following procedures are to be undertaken:

- ELIMINATE all sources of ignition
- Stop leak if without risk
- Do not get water inside containing vessel
- Dike to prevent entry in waterways or sewers
- Absorb with earth, sand or other non-combustible material
- Call for assistance with disposal.
- Use clean non-sparking tools to collect absorbed material.

8.9 Corrosives

In the event of an emergency involving corrosive material the following procedures should be followed:

- ISOLATE the area
- Keep upwind
- Keep unnecessary people away

- Keep out of low areas.

In the event of a large spill consider initial downwind evacuation for 100 meters. Wear SCBA and chemical protective clothing. Structural fire-fighters protective clothing is not effective for these materials. Ensure that when contacting emergency response personnel that they are advised of the nature of the material immediately.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.
- Request that traffic be rerouted away from Orica property until notified otherwise.

If inhaled give artificial respiration only if victim is not breathing. Give CPR only if victim is not breathing and no pulse. If in contact with skin, start flushing with running water for a minimum of 20 minutes. Remove contaminated clothing while flushing continues. Do not transport victim until 20 minute flushing period has elapsed. If in contact with eyes, begin flushing with running water. Hold eyelids open and continue flushing until irritation subsists. Obtain medical assistance immediately. If ingested, providing that victim is alert and not convulsing, give 1/2 to 1 glass of water to dilute material. If spontaneous vomiting occurs, have victim lean forward with head down and rinse mouth out with water. Contact Poison Control immediately and transport victim to emergency facility. Ensure that attending medical staff are aware of identity of product (s) involved and have access to MSDS information.

8.10 Corrosives – Fire

Material may not burn, but may decompose upon heating to produce corrosive and/or poisonous fumes. Heat of reaction may be high enough to ignite combustibles. Any contact with metals may evolve flammable hydrogen gas. The containing vessel may explode if heated or if contaminated with water.

- Small Fires – Use CO2, dry chemical, dry sand or flooding quantities of water.
- Large Fires – Flood the area with water and use a water fog to knock down vapours.

8.11 Corrosives – Spill or Leak

Any spill or leak should be isolated immediately for at least 15 – 25 meters in all directions. Keep upwind and out of low lying areas where vapours may accumulate. Ensure ventilation of any enclosed areas. Substances will react with water, releasing heat and / or corrosive gases and/ or poisonous gases.

Run-off from fire control or dilution water may be corrosive and / or poisonous and pollute waterways. Cover any spilled material with dry earth, dry sand or other non-combustible material to attempt to control small spills. Ensure that the appropriate authorities are contacted to assist in providing clean-up response.

8.12 Electrical Fire

In the event of fire in or near electrical equipment or caused by broken power lines ***the current should be cut immediately***. Do not apply water to an electrical equipment fire unless current has been turned off. Water is a conductor of electricity and it is possible for sufficient electricity to pass back through a stream of water and cause injury or death.

The main site electrical power is provided by the mine. The MCC room located in P-1 contains the electrical switching gear to shut down electrical energy to the plant/buildings.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police/RCMP and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an electrical fire emergency.

8.13 Clothing Fires

If an individual's clothing catches fire, they should lie down as soon as a safe distance from the source has been reached. Rolling slowly on the ground helps to extinguish the blaze. On no account should you run in an upright position as motion fans the flames causing them to burn more fiercely. Flaming clothing may also be extinguished by throwing a fire blanket or sack over it to exclude the air.

To minimize shock a patient should be kept quiet and warm, but not overheated. The patient should lie down on a stretcher and not attempt to sit or stand up. The shock induced by burns may be as harmful as the burn itself. Give the patient reassurance along with warmth, air and rest.

8.14 Truck Fires and Explosions

Trucks present a unique problem regarding explosions and fires as the problem becomes mobile. Incidents of this nature can occur at the Orica buildings, or traveling on roadway. The necessity to activate the ERP / ERAP and evacuate to appropriate distances must be acted upon promptly and professionally.

For trucks containing either Class 1.1, 1.5 or Class 5 materials refer to the sections above for appropriate responses to emergencies.

In an emergency the following procedures should be followed:

- ISOLATE the area
- Keep upwind
- Keep unnecessary people away

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.

8.15 Magazine Fires, (Operated by Carol Lake)

There shall be no attempts to fight a magazine fire. Evacuate all personnel within a 1,600 meter distance in all directions and maintain that distance until at least one hour after all explosions cease or the resultant fire has burnt itself out.

See the section on Class 1.1 and 1.5 fires above. This is to serve as a guide for first responders. Again, do not attempt to fight a magazine fire. Ensure local evacuation until the fire has extinguished itself.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police/RCMP and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.
- Indicate that you are with Orica Canada and that there is an emergency.

8.16 Fire at Diesel Tanks

In the event the tank in the containment area catches fire the following procedures should be followed:

- ISOLATE the area
- Keep upwind
- Keep unnecessary people away
- Keep out of low areas
- Evacuate to a distance of 1,600 meters in all directions and maintain that distance until at least one hour after all explosions and or resultant fire has burnt out.

Notifications to key personnel and first response organizations must occur. The key Orica contact list is contained in Attachment A1. External notifications to first response organizations will be done through the contact numbers identified in Appendix A1. Mine Operations, Regional Police RCMP and the Regional Fire Department must be notified. When speaking with these agencies ensure that the following information is provided:

- Provide your name
- Provide a telephone number that can be used in the event additional information is required.

- Indicate that you are with Orica Canada and that there is an emergency.

In the event that there is a fire at the fuelling area that does NOT affect the load immediately stop fuelling the truck and call for assistance. Use the fire extinguishers on the truck and aim at the edge of the fire. Do not aim the jet directly into the fire. If the fire cannot be brought under control and it is safe to do so, move the truck a safe distance away. If there is a large fire on the truck and the truck contains Class 1.1 or 1.5 or Class 5 material refer to the sections above.

9 SPILL AND CLEAN-UP

The contents of the spill response kit is outlined in Section 4.3 above.

In any minor emergency situation, if you are unable to make immediate contact with your site manager, call the 24 hour Emergency Response Phone Number: 1-800-561-3636

9.1 Bulk Product

This may include such products as ammonium nitrate prill or fuel oil.

- ELIMINATE all possible sources of ignition
- REMOVE potentially combustible material from the area
- Identify the chemical involved in the spill

Note: If ammonium nitrate and fuel oil have spilled and mixed together the spilled products must be considered a Class 1.5D explosive product.

- If possible, quickly and safely eliminate the source of the spill by deactivating equipment controlling the flow of material.
- Contain the flow of spilled material to ensure it will not spread. It is of the utmost importance to attempt to prevent the flow of spilled material from entering any waterway.
- Secure the area. Keep all bystanders and non-essential personnel at least 50 meters from the scene.
- If fire threatens the spilled product or container – EVACUATE to the following safety distances:
  - Explosives – 1,600 meters
  - Oxidizers – 800 meters
  - Flammable liquids – 800 meters
- Contact the company 24-hour Emergency Response Telephone number: 1-800-561-3636
- Follow the instructions given by the RMT (Response Management Team)

Cleanup Procedures

The Site Emergency Response Coordinator, with assistance from the Response Management Team (RMT), will arrange for the required equipment to conduct the clean-up operation. The equipment may include company or contractor transport units, contractor loaders, vacuum trucks etc. And/or pumps, drums, bags, boxes and hand tools from company branches.

Note: use only approved and maintained material handling equipment during emergency situations. Contract transport units must be licensed to haul the product concerned.

Explosive Product

- If there is a large spill or the transport unit is disabled, an approved transport unit will be dispatched to the site to transfer the load or recover uncontaminated product.
- Contaminated product will be cleaned up by hand and placed in approved packaging.

Oxidizer (Class 5.1)

- If there is a large volume spill, a transport unit and the front-end loader will recover the spilled material.
- Small volume spills will be cleaned up by hand using shovels and drums.

Flammable Liquids (Class 3)

- The maximum quantity of flammable liquid that is carried on an ORICA delivery vehicle is 1,500 litres.
- In the event of a spill uncontaminated product will be pumped into 200 litre drums and used in normal production
- Contaminated soil will be excavated, and contaminated soil and product will be disposed of in a government approved disposal site. Contact the Environmental Engineering Group in Denver for assistance.

9.2 Packaged Product

In the event of a packaged product spill the following actions are required:

- ELIMINATE all possible sources of ignition
- SECURE the area. Keep all non-essential personnel at least 50 meters from the scene. Direct traffic around the scene but do not allow any vehicles to stop within the 50-meter perimeter.
- Do not allow any bystanders or vehicles to come in contact with the spilled product
- Gather up all undamaged spilled product and place it in a licensed magazine
- Re-pack into approved packages when necessary
- Follow the instructions given by the RMT

Note: DO NOT clean-up or dispose of damaged product except under the supervision of a specialist. When cleaning up a spill of explosive product all products must be accounted for.

Cleanup Procedures

The site Emergency Response Coordinator with assistance from the Response Management Team will arrange for the required equipment to conduct the clean-up operations. The equipment may include a transport unit, drums, plastic bags, approved explosive re-pack boxes, aluminium shovels and brooms.

Note: Use only approved and maintained material handling equipment during emergency situations. Contract transport units must be licensed to haul the product concerned.

Packaged Explosive Product

- Spilled, undamaged product will be repackaged in approved packaging and transported to licensed company magazine site and stored for future use.
- Damaged product will be packaged in approved packaging and transported to the company magazine site where it will be stored until arrangements can be made to destroy the product.

Packaged Oxidizer

- Spilled, uncontaminated products will be repackaged in approved packaging and transported to a company site for future use.
- Contaminated products will be repackaged in approved packaging and transported to a company site for disposal.

10 NATURAL DISASTER RESPONSES

10.1 Earthquakes

Earthquakes as commonly thought of are not likely to occur as a result of the local geology. Falls of ground could occur in areas due to the failure of old underground workings that may approach surface. Should an earthquake occur, employees should be warned to:

- Stay indoors if already there
- Take cover under sturdy furniture such as worktables or desks, or in doorways, halls or against inside walls.
- Stay near the centre of the building
- Stay away from glass windows and doors
- Avoid running through or near buildings where there is danger of falling debris.
- Employees in the open should stay in the open, away from buildings and structures and a safe distance from utility lines.
- After any tremors have stopped employees should be warned to stay away from and not to go inside damaged buildings and structures due to possible aftershocks.
- If water pipes are damaged or electrical wires are shorting they should be turned off at the primary control point.

10.2 Tornadoes

Tornadoes are violent local storms with whirling winds of tremendous speed that can reach 200 – 400 mph.

When a **TORNADO WATCH** is announced:

- Keep your radio or television set on and listen for the latest weather service warnings and advisories. If power fails, use a portable battery-operated transistor radio or a car radio.
- Keep watching the sky, especially to the south and southwest. However, when a Tornado Watch is announced during the approach of a Hurricane, keep in mind that it may move from an easterly direction.

When a **TORNADO WARNING** is announced:

- Doors and windows on the sides of the building away from the approach of the tornado may be left open to help reduce damage but stay away from them to avoid flying debris. Doors and windows on the sides of the building toward the approach of the tornado should be closed to keep out rain and to help prevent the buildup of air pressure within the building.
- Do not remain in a trailer if a tornado is approaching. Take cover elsewhere.
- If advised that you are likely to be in the path of a tornado, and if time permits, cut off electricity and fuel lines.

- If you are outside in open country, drive away from the tornado's path at a right angle to it. If there isn't enough time to do this, or if you are walking, take cover and lie flat in the nearest depression, such as a culvert, excavation or ravine.

10.3 Hurricanes

Whenever there are definite indications that a hurricane is forming, even though it is a thousand miles away, the storm is given a name and the weather service begins issuing ADVISORIES. The advisories are issued frequently throughout the day and night, and are picked up by the news media. They tell where the storm is located, the intensity of the winds, and the speed and direction of movement. When a warning is issued, all precautions should be taken immediately against the full force of the storm as winds in excess of 74 mph can be expected.

The greatest loss of life from hurricanes is from the flooding due to rain and the storm's surge, and from Tornadoes, which are spawned by the Hurricane. The following measures are suggested:

- Monitor weather advisories to keep up to date on the movement of the storm.
- Secure all objects in, around and on top of structures and roofs that might either be blown away or become airborne and strike people or other objects. Some may be tied down, others will need to be taken inside.
- Coordinate activities with local authorities (e.g. Fire, Police,)

10.4 Floods

Floods are spawned by heavy winter storms that subsequently melt quickly, heavy rains or broken water (Tailings) lines. Floods cause enormous property damage, human misery and loss of life. Flash floods are the most urgent type of warning. These warnings are given whenever there has been a dangerous rise in water level of a stream, or over a land area, within a short time period. Flash floods are caused by heavy rains, ice jams on rivers during break-up, earthquake or even a dam failure. The following actions and protective measures will be undertaken:

- Move all critical equipment to higher ground (above the flood zone)
- Shut off utilities to the affected area
- Cool off hot equipment before water reaches it
- Coat all exposed equipment and machinery with grease; especially around openings to bearings
- Extinguish all open flames to minimize the potential of flame coming in contact with flammable liquid potentially floating on the water surface.

10.5 Winter Storms

Winter storms vary in size and intensity and generally affect all parts of the country. They range from a minor ice storm to a full-blown blizzard. Ice storms are treacherous in that they are very destructive and create many problems by toppling trees and power lines. They also create hazardous driving conditions that make it difficult for employees to get to and from work.

More major source of loss is roof collapse from the load of the snow. If there has been partial melting and re-freezing, the load of ice can be even worse.

Precautions to consider include:

- **Before Shift**
  - Announce any plant closures due to inclement weather by phone.
- **During Shift**
  - Prepare to knock down icicles, which may form on roofs and heavy accumulations of snow, which could cause roofs to collapse.
  - Leave plant when poor climate conditions arise

10.6 Grass Fires

The grass at the site is kept cut short. The building is made of steel cladding and should be protected from an encroaching fire. However certain precautions will be taken as stated below.

- **Two (2) Kilometres from The Process Building**
  - In the event that a grass fire comes to within 2 kilometres of an Orica facility (e.g. process building, magazine, AN trailer), the Regional Manager, Operations Manager and SHE Manager are to be notified immediately and made aware of the pending situation.
  - The Site Manager will contact the local Firefighting resources and ensure that they are aware that there is a potential impact should the fire approach.
- **One (1) Kilometre from The Process Building - Potential Evacuation**
  - In the event that a grass fire comes to within 1 kilometre of an Orica facility (e.g. process building, magazine, A/N trailer, the Regional Manager, Operations Manager and SHE Manager are to be notified immediately, at which time a decision will be made as to whether an evacuation of the area will be necessary. All staff will meet at the site entrance. **If it is determined that evacuation must proceed:**

    - The SERD shall evacuate all personnel within a **1,600-meter** distance in all directions and maintain that distance until there is no longer a threat from the fire.

10.7 Forest Fires

Although not normally a major concern in the fall, winter and spring months, fires cause extensive inconvenience and devastation during the summer months. The area around the site is surrounded by a ground break that is free of vegetation. In all but the most serious fires, this area is designed to provide sufficient amount of protection from an encroaching fire.

Responses to forest fires will follow the general steps outlined in Section 10.6 above.

10.8 Civil Disturbance

In the event of any incident involving demonstrations, suspected crime, civil unrest or damage through malicious or illegal means contact:

Joel Guenther
Orica USA
Market & Customer Intelligence Lead North America
Bureau: (303) 268-5245
Cellulaire: (303) 817-6953

10.9 Lightning Storms

In the event of lightning in the area, the site must apply the evacuation procedure (identified on Section 11.7-Site Evacuation). All MMU's are to be stored inside the buildings prior to evacuation if time allow. Upon evacuation, lock the gate at the plant entrance and ensure that all personnel are off site via site tour. The lightning detection system is monitored by IOC and determination of "return to work" will be granted by Mine Control.

Further reference to Site Evacuation can be found on Attachment A2 and Attachment A4 of this ERP.11

11 EMERGENCY RESPONSE OVERVIEWS

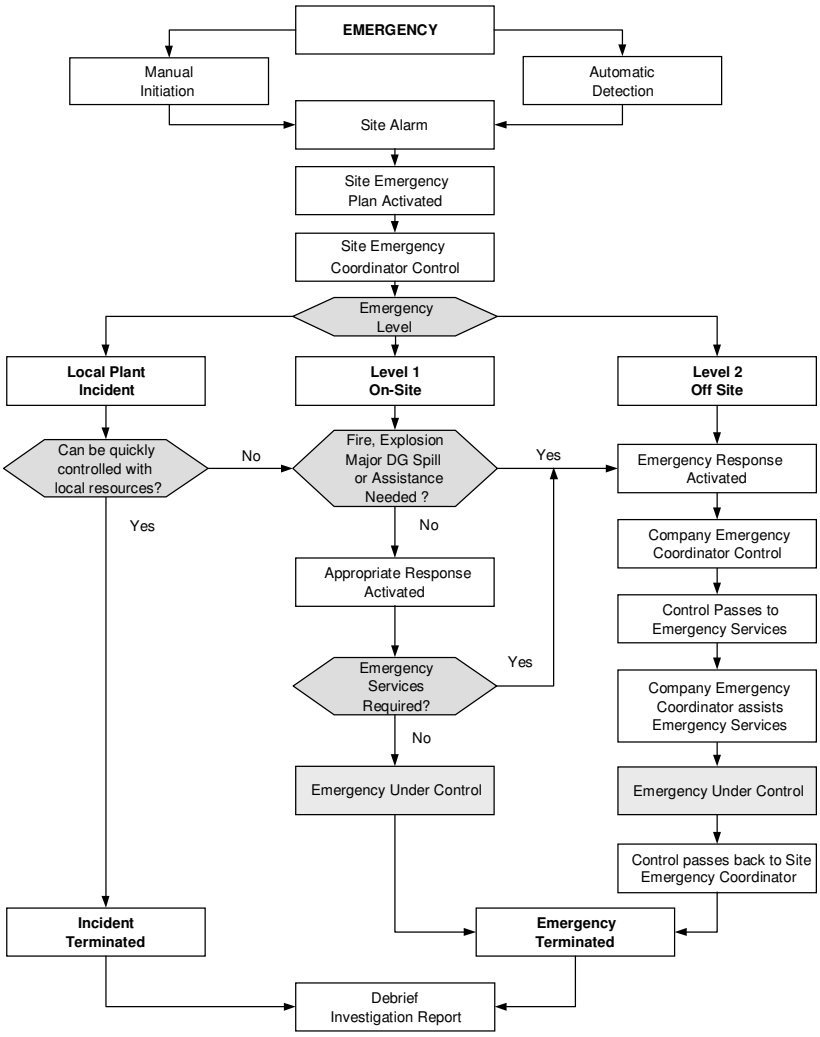
11.1 Emergency Response Organizational Structure

Figure 11.1 shows the emergency organisation flowchart. This shows the overall process of how Orica responds to an emergency.

As this is a single facility, there is one site emergency response process and a single site emergency system, with varying grades of response level. During an emergency the level may be escalated to a higher level or reduced to a lower level at any stage. At any level, the role of the site personnel or emergency first responders can be to assist, standby, or be advised of site status. The decision criteria for selecting which Emergency Level applies are discussed in Section 3 above.

Emergency Response Plan

Figure 11.1: Emergency Organisation Flowchart



11.2 Detailed Local Roles and Responsibilities

Site Emergency Coordinator

The shift supervisor will assume the role of Site Emergency Coordinator during an emergency in the event the Site Manager is not on the premises.

Upon hearing the alarm, the shift supervisor shall make an initial judgement as to the choice of response based on the location and nature of the emergency. In most circumstances this will be through contacting emergency first responders through the contact numbers identified in Appendix A1 and IOCC mine site personnel.

The shift supervisor assumes control of all activities until relieved. Emergency first responders may relieve him, or he may pass control to the Site Team Leader if warranted. This will allow the shift

supervisor to take full leadership of the shift response team during an incident to focus efforts on field response.

Company Emergency Coordinator

For significant emergencies (Level 2), the Orica SH&E Manager will assume the role of Company Emergency Coordinator and have prime responsibility for coordinating liaison with external bodies. He will also assume the responsibility for internal notifications and provide continual updates on the ongoing emergency.

Site Emergency Response Director

The Site Team Leader will be the Site Emergency Response Director (SERD) and will provide communication and co-ordination support to company personnel involved in an emergency, and also provides expert assistance. Should the Site Emergency Response Director not be on-site when an emergency occurs the shift supervisor may contact the 24-hour Emergency Response Phone Number **1-877-561-3636** for immediate assistance: The SERD will coordinate the following items in conjunction with emergency first responders:

- contacting mine site personnel
- liaising with medical specialists / EMTs
- contacting senior management, defined plant personnel and media relations personnel.
- liaising with government authorities and emergency services personnel.
- contacting Orica legal and insurance personnel.
- obtaining information from Material Safety Data Sheets (MSDS) 24 hours per day.
- locating product experts.
- participating in simulated emergencies.

Shift Personnel

The normal response team for all emergencies are the shift personnel. This team is fully trained in emergency response, and in use of emergency equipment.

Other Site Personnel

All other site personnel shall report to designated Muster Points for a head count of personnel on the plant.

11.3 Emergency Contacts

The list of emergency contacts is provided in Attachment A1. This includes contacts in Orica, offsite emergency services, and neighbours.

11.4 Initiation of Site Emergency

A site emergency is initiated by activation of the site emergency alarm.

The site emergency alarms use portable air horns that are located throughout the site to begin Alarm until main Alarm can be activated. Main Emergency alarm to trigger muster and evacuation is an air operated train horn located at the front top of G1.

Any person discovering an emergency situation or a situation likely to give rise to an emergency must activate the site emergency alarm and then contact the main office to report the details.

In the event of offsite situations, the designated Site Emergency Coordinator will initiate a site emergency if it is considered the situation poses a risk to personnel on site.

11.5 Site Emergency Alarm

In the event of a site emergency alarm all personnel will report to designated Muster Points.

IOCC mine management will be notified via radio communication, alerting them of the alarm and the requirement to evacuate all mine personnel and/or contractors located at the tailings dam areas, see drawing in appendix A2A.

Upon hearing the alarm, mine personnel and/or contractors working in the tailings dam areas are to immediately evacuate to the nearest muster point and inform the Orica staff or IOCC ER team via radio or in person.

The Site Emergency Coordinator will conduct a head count based on the daily attendance board and Visitors Log. Once attendance has been taken all personnel will proceed to the Secondary assembly points outside of the danger zone. Assembly point 1 is located at the entrance to IOCC dump indicated with the Orica Muster point sign. The secondary muster point is located at the north end of the Orica access road, by the electrical substation indicated with the Orica Muster point sign.

The Emergency Coordinator will be immediately informed of the names of any people unaccounted for.

The Emergency Coordinator will arrange for a search to be conducted for the missing personnel. No one will be allowed back in to the danger area until their safety can be assured.

11.6 First Aid

All shift personnel are first aid trained and they will provide the initial first aid response. This will be supplemented by the emergency services as they arrive at site.

11.7 Site Evacuation

If an evacuation is required due to a series of explosions or in the event of a fire in the plant area, ammonium nitrate prill area, emulsion silo area, explosives trucks or maintenance garages the following steps will occur:

- Evacuate all personnel in the immediate vicinity (within 1,600 meters of the site)
- In the case of a bulk AN prill fire, evacuate to 1,600 meters in an UPWIND direction
- Establish initial road blocks
- Inform emergency response both Orica and IOCC Mine Rescue teams.

The main site muster point is located at the site entrance near the IOCC dump access road. The second muster point is located 1.6 km north from the plant towards the mine dispatch building. Personnel will be directed to evacuate to the appropriate assembly point by the shortest, safest route. The evacuation route should avoid toxic or flammable gas clouds, chemical spillages, electrical wires or similar hazards. Wherever possible personnel will move at a fast walking pace cross wind to avoid panic and confusion.

The Evacuation Coordinator will arrange a check of the number of persons evacuated before and after each move.

Emergency Response Plan

11.8 External Evacuation

Where an emergency may affect mine site personnel, it may be necessary to arrange their evacuation. Such evacuation will be the responsibility of local police and supported by the local fire department.

11.9 Public Relations / Media Response

Crisis communications includes the management of communications to:

- media
- external government authorities
- emergency services
- neighbours (residents and industrial)
- senior management
- Orica Legal, Insurance etc.

Principles to be followed are:

(a) Relations with regulating authorities, elected representatives of the public, local authorities, the media, the community and their organizations should be as open as the constraints of business security permit.

(b) Positive opportunities should be sought to improve the reputation of the company through adequate liaison and briefing. If requested by the local community, or it is seen as desirable by the Site Manager, a community relations liaison committee should be set up, where matters of interest related to the site may be reviewed.

A record of all opportunities taken to improve community relations will be recorded in the SHE Systems Management Manual Section 6) External Environment II) People b) Emergency Service.

A record of all community complaints/concerns are to be recorded in the SHE Systems Management Manual Section 6) External Environment II) People b) Emergency Service including actions taken to remedy the problems.

Any dealing with Emergency Responders including site tours, special training or Site Emergency Response planning is to be recorded in the SHE Systems Management Manual Section 6) External Environment II) People b) Emergency Services.

Site personnel will request media vehicles to keep the main entrance clear for emergency services. No media vehicles will be permitted on site without permission of the Site Manager.

In planning a public information system, consideration must be given to the proper drafting of news releases, provision for clearances of all releases by a responsible company executive and the expeditious distribution of releases to all media. The media release shall include:

- cause of the emergency
- action taken
- effectiveness of corrective action
- expected time when emergency will be terminated
- co-operation needed from the media

The media release shall include facts only.

Emergency Response Plan

12 TERMINATING AN EMERGENCY AND POST EMERGENCY ACTIVITIES

12.1 Termination

When the External Emergency Coordinator's role is complete, he/she will hand back control to the Orica Emergency Coordinator who will carefully consider the overall situation and arrange for any outstanding actions to be completed. The Emergency Coordinator will announce the "all clear" and declare the emergency complete.

The declaration of the end of the emergency will be made by sounding the "all clear" through three short blasts on the emergency siren and an announcement over the public-address system.

12.2 Investigations

Investigations and written reports are to be completed as explained in the Orica Model Procedures MP-SG-026 Incident Management.

Collection and reporting requirements of SH&E incident data are detailed in MP-SG-008.

12.3 Decontamination

At termination of a site emergency, decontamination of personnel, equipment and land may be necessary. Because of the wide range of emergencies that may occur (e.g. toxic gas, chemical spill, flammable liquids fire, etc.), decontamination procedures will be developed on a case-by-case basis for the situation that arises. Instructions from the emergency services and information obtained from MSDS, will be included in the specific procedures. Decontamination procedures will be developed in accordance with Orica's model procedures:

- "*MP-SF-023 - Decontamination of Process Equipment*", CHL267456182.
- "*MP-EP-001 - Decommissioning, Decontamination & Removal of Plant & Equipment & Remediation of Land*", CHL265544123.

In general, personnel coming into contact with chemicals will require protective clothing to be decontaminated or disposed of. Process plant affected by chemicals or fire-fighting media (foam) will need to be washed down using site and emergency services equipment, and effluent appropriately disposed of. All contaminated liquid will be contained and treated in the site effluent system. All contaminated solids and any liquids requiring additional treatment will be treated offsite by a waste contractor. Any land affected by an incident shall be remediated in the most appropriate way.

12.4 Recommencing Operations

After any significant Site Emergency, whether initiated on-site or from off-site, all plant equipment will be thoroughly inspected for integrity before start-up and return to normal operations. Resumption of normal operations will depend on damage to operating plants, removal of debris, repair or replacement of equipment, and the need to preserve evidence. Operations will be resumed only after the direct causes have been established and immediately required rectifications made.

The decision to resume operations will be made by the Site Manager when he is satisfied it is safe to do so.

13 EMPLOYEE SAFETY CONCERNS

A list of any employee questions or concerns that pertain to potential causes of an emergency must be recorded in monthly SHE meeting minutes (SHE Systems Management Manual Section 1) SHE Management, II) Control, b) SHE Meetings) and responded to by line management.

14 REVIEW & REVISION OF PLAN

Review of the Emergency Plan will be the responsibility of the Site Manager.

The purpose of the review is to ensure that the Emergency Plan has been updated if there is reason to believe that it is no longer fully appropriate to the Facility, or no longer fully effective.

14.1 Development History of the Plan

The original plan was developed during the construction phase of the Site. The plan was developed in close consultation with employees and the emergency first responders. The plan has been accepted by the Canadian SH&E team and the first responders.

14.2 Training

An emergency often creates an unfamiliar, emotionally charged and hostile working environment for responders and decision makers. Effective training is an essential element of this Emergency Response Plan and is an annual requirement for ***ALL*** site personnel.

Training will typically take the form of a “tabletop exercise”. The annual tabletop exercise will follow an orientation meeting where all site personnel and local agencies meet to explore emergency planning. This is an informal exercise where participants are presented with a potential emergency scenario (see Emergency Scenarios above) and work through the procedures with an emphasis on problem solving instead of rapid decision-making.

Invitations to the annual tabletop exercise shall be extended, well in advance, to local first responders to ensure their participation.

As a part of the annual exercise, mine site personnel will be contacted and invited to attend an information briefing on the current emergency response plan. The purpose is to ensure that they are informed of the plan and any changes as well as to confirm their contact information and what is expected of them in the event of any emergency.

Health, safety and environmental training offered by Orica:

- Introduction to health, safety and the environment – ref. Tier 1.
- Environmental sustainability – ref. Tier 1.
- Emergency Response in the Workplace – ref. skill soft.
- Spill Prevention and Control & Spill prevention and Control countermeasures – ref. Skill soft.
- () – Skill soft.
- Emergency Response and Spill Control – ref. Skill soft.
- Emergency planning – ref. I: Drive.
- Transportation Emergency Response NA Emergency Response – ref. I: Drive.

14.3 Review of the Emergency Plan

The Emergency Plan shall be reviewed annually, or more frequently if any of the following occur:

- a change to the facility
- the identification or occurrence of a major incident that has not been correctly addressed in the Plan
- a failure of the Plan when tested
- the acquisition of new information on emergency planning that is relevant to the Facility.

The plan shall be reviewed following any Emergency Exercise. This activity should include:

- implementation of the learning and recommendations from the Exercise
- confirmation that learning from the internal emergency exercises have been included in the Plan
- reviewing modifications to ensure any changes affecting the Plan have been incorporated
- reviewing incidents to ensure outcomes from investigations affecting the Plan have been included
- confirmation the Emergency Plan, Attachments and the Emergency Information Manual documents are still current and accurate

14.4 Updating Emergency Plan

The level of consultation on changes to the Plan is dependent on the nature and scope of the change.

The following steps are taken when revising the Emergency Response Plan:

- Update the Plan and associated documents as required
- Consider if a modification is required if procedures have changed
- Discuss the changes at the SH&E Committee Meeting and obtain acceptance of the changes.
- For significant changes consult the local first responders.
- Issue an approved revision of the Emergency Plan.
- Update the controlled hardcopies as per the Distribution
- Replace any attachments affected by the change.

15 APPROVALS

This Emergency Response Plan has been reviewed by Orica Senior Management as being in compliance with industrial emergency planning standards and codes of practice.

16 AUDITS

This Emergency Response Plan will be audited a minimum of once every 12 months. In order to ensure currency of information the record of audit will be recorded in the “Revision History” located on the front page as “Reviewed” under “STATUS” and will be initialled by the Site Manager.

Emergency Response Plan

17 GLOSSARY

ABBREVIATION	DEFINITION
ERP	Emergency Response Plan
SH&E	Safety, Health and Environment
MSDS	Material Safety Data Sheet
AN	Ammonium Nitrate
OHS	Occupational Health Specialist
SCBA	Self-Contained Breathing Apparatus
SERD	Site Emergency Response Director
ERAP	Emergency Response Assistance Plan
TDG	Transportation of Dangerous Goods
MOE	Ministry of the Environment
NR Can	Natural Resources Canada
ERD	Explosives Regulatory Division
EMT	Emergency Medical Technician
ICC	Incident Command Centre
EOC	Emergency Operations Centre
CANUTEC	Canadian Transport Emergency Centre
VET	Vertical Emulsion Tank

Emergency Response Plan

ATTACHMENT A1 - EMERGENCY PHONE NUMBERS

PRIMARY INITIAL EMERGENCY CONTACT

ORICA ERAP2-1510 1-877-561-3636

Technical Information 24 hours
Canutec: 1-613-996-6666

1. OFF SITE EMERGENCY

Emergency Numbers in Canada:

Explosives (ORICA Canada)	1-877-561-3636
Explosives CANUTEC	1-613-996-6666
British Columbia Emergency Coord Centre	1-800-663-3456
Transportation of Dangerous Goods	1-613-666-2955
ERD Ottawa	1-613-948-5200
Terrapure	1-800-567-7455
Labrador Coatings ltd.	1-709-282-3400
CEDA	1-888-793-2378
Canadian Bomb Squad	1-613-993-7880
ER Contractor (Phillips Service Corp)	1-800-567-7455
Environmental Spill Reporting (MOE)	1-800-268-6060
NL- Fire and Emergency Services (Fire Protection)	1-709-729-1608
(Emergency Services)	1-709-729-3703

2.0 ON SITE EMERGENCY

IOCC Mine Site Security	1-709-944-8911
Wabush Airport Traffic Control	1-709-282-6224

3.0 SITE RESOURCES

ORICA Canada Inc., Head Office Toronto, Ont.	1-905 460-4456
ORICA Canada Inc., On Site Office Carol Lake	1-709-944-2962

Emergency Response Plan

4.0 PERSONNEL AFTER HOURS

IF EMERGENCY OCCURS DURING NON-BUSINESS HOURS PHONE:

#	Name	Title	Cell phone	Other
1	Chad Canning	Site Leader	709-280-3558	709-944-2962
2	John Pinto	Site Supervisor	514-216-4840	709-944-2962
3	Jesse Desrochers	Technical Representative Eastern Canada	709-987-0434	n/a
4	Isabelle Goyer	SHE Supervisor Atlantic North Region	514-229-1584	n/a
5	Frédéric Levesque	Territory Manager North Shore	514-378-0097	n/a
6	Eric McMillan	Senior District Manager Eastern Canada	250-682-2492	n/a
7	Al Loan	Canadian Regulatory Manager	613-299-9970	613-387-3664
8	Patrick Goldfinch	SHES Manager Canada	514-231-6912	n/a
9	Martin Brière	VP Canada	418-466-5553	n/a
10	Jocelyn Tremblay	Mechanic	709-282-4921	n/a
11	Dixon Clements	Plant Operator	709-282-4023	n/a
12	Sheldon Hancock	Senior Operator	709-282-4860	709-944-3192

CAROL LAKE SITE TO CALL:

4.1 Local Companies

Labrador Coatings
Wabush, NL
1-709-282-3400 (o)

United Rentals
Wabush Industrial Park
13 Second Ave
1-709-282-7368 (o)

4.3 Federal, Provincial, and Local Agencies

1. Police (Royal Newfoundland Constabulary) 1-709-944-7602
   911
2. Ambulance
   a. IOCC Security 1-709-944-8911
   b. Labrador City 1-709-944-2632
   911
3. Fire
   a. IOCC Security 1-709-944-8911
   b. Labrador city Fire Dept. 1-709-944-7778
   911
4. Canutec (613) 996-6666
5. ERD (613) 948-5200
6. Ministry of the Environment (Spills) 1-800-268-6060

4.4 TERMINATING AN EMERGENCY

IOCC SITE TO CALL:

All areas of the Emergency Call out Procedures and Mine Site Personnel, after the emergency is under control to advise them of the situation.

Emergency Response Plan

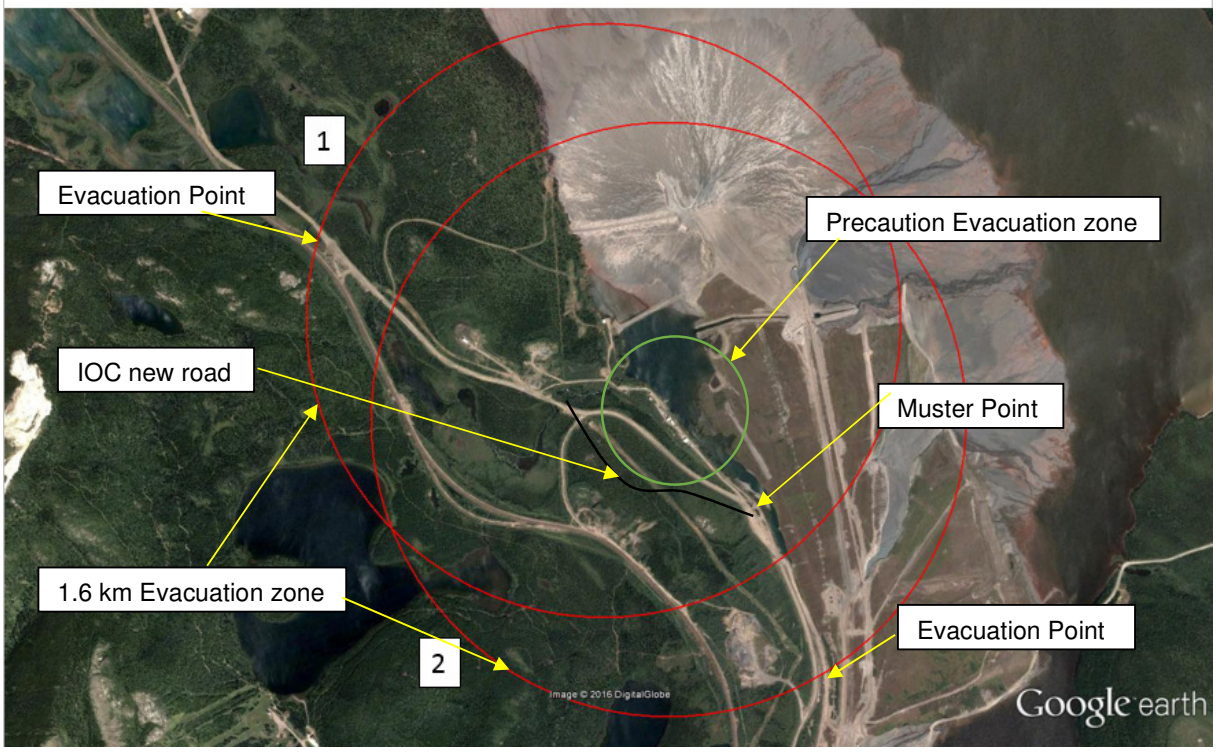
ATTACHMENT A2 – CAROL LAKE AREA MAP, (1.6 KM RADIUS)

Precaution Evacuation zone = this zone is used from precaution only. Example: lightning, emergency exercise drill

1.6 km Evacuation zone = this zone is to be used for actual event when full evacuation is required. Example: fire on Orica site.

F113, Carol Lake, 1,600m Evacuation Circles

1. Magazine Complex
2. AN Emulsion Plant

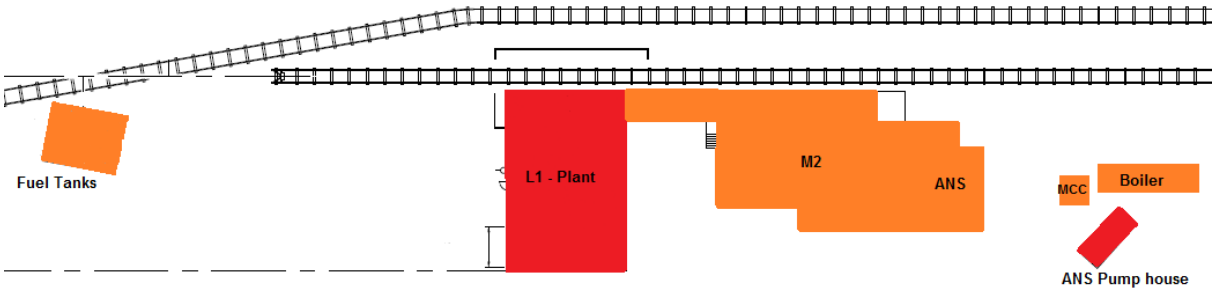


Emergency Response Plan

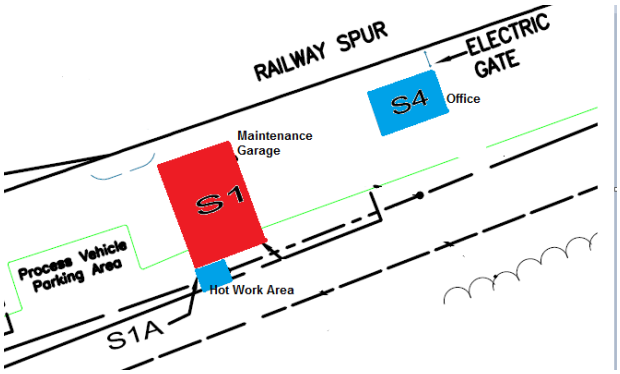
ATTACHMENT A3 – CAROL LAKE SITE MAP

RED ZONE: Do not fight Fire
ORANGE ZONE: Acceptable to fight fire only by trained personnel
BLUE ZONE: Acceptable to fight fire

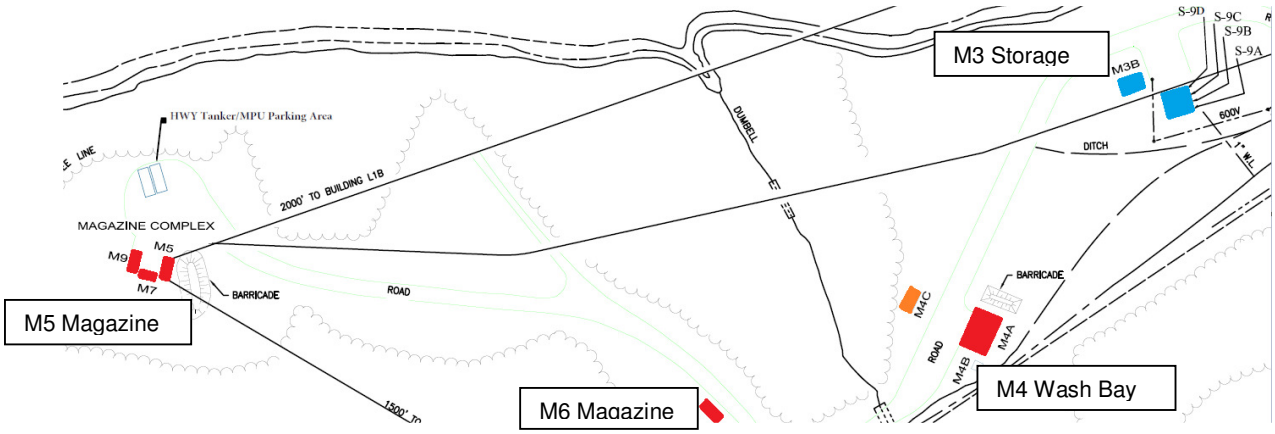
Plant area:



Office & Maintenance Garage Area :



Wash Bay and Magazine Area:



Emergency Response Plan

ATTACHMENT A4 – ERP SHORT VERSION

ORICA – CAROL LAKE
ABRIDGED RESPONSE PLAN

ORICA CANADA INC operates an explosives manufacturing /storage and distribution facility.

SITE LOCATION:

Carol Lake
Labrador City, NL

PHONE CONTACTS:

FIRST CONTACT:

1–877–561–3636

Orica Canada Inc. - Emergency Response

ORICA PERSONNEL:

Contact	Name	Position	Primary Contact	Alternate Contact
1	Chad Canning	Site Team Leader	1-709-944-7359	1-709-280-3558
2	John Pinto	Site Co-ordinator	1-514-216-4840	
3	Jocelyn Tremblay	Mechanic	1-709-282-4921	
4	Trevor Stoodley	Mechanic	1-709-944-3161	
5	Duane Newhook	Senior Operator	1-709-944-0939	
6	Wayne Dumaresque	Senior Operator	1-709-944-2020	
7	Dixon Clements	Senior Operator	1-709-282-4023	
8	Sheldon Hancock	Senior Operator	1-709-944-3192	1-709-282-4860
9	Gerald Baker	Senior Operator	1-709-944-3764	
10	Darrell Hancock	Senior Operator	1-709-944-6545	
11	Rob Abbott	Senior Operator	1-709-944-2475	
12	Melvin Alyward	Senior Operator	1-709-282-8374	
13	James McDonald	Senior Operator	1-709-944-2727	
14	Jeff Hann	Senior Operator	1-709-944-3873	
15	Wayne Smith	Senior Operator	1-709-944-5822	
16	Jeremy Lush	Senior Operator	1-709-280-5231	
17	Lionel Wicks	Senior Operator	1-709-944-0744	
18	Danny Burridge	Senior Operator	1-709-944-0694	
19	Jeffrey Parson	Senior Operator	1-709-280-4200	
20	Jesse Desrochers	Tech Rep	1-709-987-0434	
21	Glendine Osborne	Ad. Assistant	1-709-280-1821	
22	Shannon Watkins	Senior Operator	1-709-282-8336	
23	Mitch Wiseman	Senior Operator	1-867-446-2870	

Emergency Response Plan

EVACUATION

IF AN EVACUATION IS REQUIRED THE FOLLOWING PERSONNEL MUST BE NOTIFIED OF THE SITUATION

IRON ORE COMPANY OF CANADA

1-709-944-8320

OR 1-709-944-8911

1. State your name and say that you are with Orica Canada Inc. /Other (Fire Department, etc.).
2. Provide a telephone number they can call if they require additional information.
3. Advise them of the situation
4. IOCC Security will notify the **Tailings Crew, ATO Crew and Wabush Airport** of the evacuation and inform to avoid this area until further notified.

SITE AREAS OF CONCERN – (See Site Map)

CLASS 1, EXPLOSIVES

L-1B	**Explosives Process Area**
L-1, M-4, S-1	**Process Vehicles**
M-5, M-6, M-7, M-9	**Explosives Magazine**

CLASS 3, FUEL

S-7	**Diesel Fuel**

CLASS 5.1, OXIDIZERS

A-1	**Ammonium Nitrate Rail Car**

Emergency Response Plan

EMERGENCY RESPONSES

1. FIRES INVOLVING EXPLOSIVES

Division 1.1 and 1.5 products will burn and may detonate EN MASSE at any Time. Fire in an area containing explosives shall be treated as if detonation would occur.

DO NOT ATTEMPT TO FIGHT THE FIRE

GENERAL
ISOLATE THE HAZARD AREA
KEEP UPWIND AND USE TERRAIN AND BUILDINGS FOR SHIELDING
KEEP UNNECESSARY PEOPLE AWAY
KEEP AWAY FROM WINDOWS

EVACUATION
If fire or heat threatens an explosive product, or if an explosion has occurred, evacuate all persons within a **1,600 meter** distance in all directions and maintain that distance until at least one hour after all explosions and/or resultant fire has burnt itself out.

2. CARGO FIRES ON PLANT PROPERTY

FIRE FIGHTING

IF THE CARGO IS NOT SUBJECTED TO HEAT (MAINLY TIRE FIRES)

Vehicle and Equipment:

1. Use dry chemical, sand, or flooding quantities of water
2. If possible, remove tractor from cargo trailer.
3. Pay special attention to tire fire as re-ignition may occur.

IF CARGO IS SUBJECTED TO HEAT TREAT AS FOR EXPLOSIVES

DO NOT MOVE CARGO THAT WAS EXPOSED TO HEAT EXCEPT UNDER THE SUPERVISION OF A SPECIALIST.

3. OXIDIZERS ON PLANT PROPERTY

FIRE OR EXPLOSION
Attempts to smother a fire involving this product will be ineffective as it is its own oxygen source This product may detonate if contaminated with organic material such as diesel fuel if heated while confined.

Emergency Response Plan

EMERGENCY ACTION

GENERAL
ISOLATE THE AREA
KEEP UPWIND
KEEP UNNECESSARY PEOPLE AWAY
KEEP OUT OF LOW AREAS

FIRE FIGHTING:

1. Use flooding quantities of water
2. **DO NOT** use a water jet because it will spread the fire
3. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
4. Move containing vessels from fire area if there is no risk to humans
5. Cool containing vessels with flooding quantities of water until well after the fire is out.

EVACUATE IF LARGE QUANTITY OF MATERIAL IS INVOLVED IN FIRE.

4. DIESEL FUEL

FIRE FIGHTING:

1. This material is flammable and can be ignited by heat, sparks, flames, or other sources of ignition.
2. **Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen.
3. **Fire Fighting Instructions:** For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces.
4. Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk.
5. Water spray may be useful in minimizing or dispersing vapours and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Emergency Response Plan

ATTACHMENT A5 – DATA COLLECTION CHECKLIST

ITEM	INFORMATION
Date / Time of Incident	
Name and Telephone Number of Person Calling	
Name and Organization of the Person Called	
Name and Telephone Number of the Onsite Manager	
Location of the Emergency	
Status of Nearby Populations (people in danger / how many)	
Nature of the Emergency (Leak, Spill, etc.)	
Number of Injured (How many and where they are being taken)	
Name and amount of material(s) released and their characteristics	
Other hazardous material located on site	
Any indication of amount of material released into environment	
On site weather conditions (wind direction, speed, etc.)	
Local Terrain (including approach routes)	
Number of Personnel at the Scene	
Actions taken so far by personnel at the scene	
Emergency services that have been notified	
Utilities involved (power lines, etc.)	

Emergency Response Plan

ATTACHMENT A6 – IOC EMERGENCIES CONTACT

Rio Tinto

All Emergencies - contact on IOC phone system
All Emergencies - from outside IOC phone system

IOC

Department	Name	Title	Extension	Cellular
Mine Operations	Raymond Erger	Superintendent - Blast Execution - Mining Ops	7150	709-987-9075
	Keith Canning	Superintendent - Pit Production	8007	709 987 9459
	William Shand	Manager - Pit Operations	7793	709 280 2286
	Scott Barney	General Manager	7132	709 987 0953
	Mine Dispatch		8250	
Contractor Management	Cal Barrett	Contractor Management Specialist	7829	709 987 0195
	Belinda Grouchy	Superintendent - Contractor Management	4725	709 987 9376
	Tim Gallant	Manager - General Services	8594	709 282 8155
Emergency Services and Security	Mark Brophy	ERT Coordinator - Emergency Services	8320	709 282 8679
	Jordan Parrill	ERT Coordinator - Emergency Services	8320	709 280 2196
	Ken Whitten	Superintendent	8702	709 987 9005
Medical Services	Geraldine Supramaniam	Superintendent - Medical Services	4605	709 987 9153
	Norma Boozan	Registered Nurse - Advisor	4585	709 987 0750
Safety	Diana Gillam	Advisor - Safety Mine Ops	7818	709 282 8139
	Darrin Smith	Advisor - Safety POD s	7085	709 282 8292
	Jamie Stagg	Superintendent Safety	8994	709 944 0152
Environment	Charmain Cull	Advisor - Environment	8021	709 280 2383
	Tracy Drake	Advisor - Environment	8480	709 280 2383
	Sonya Flynn	Senior Advisor - Environment	8800	709 282 4299
QNS&L	Francine Ricketts	Supervisor - Station Freight (CR)	8401	709 987 1054
	Marcel Leboulaire	Superintendent - Railway Operations	73-7198	418 965 6818