AGNICO EAGLE

AMARUQ EXPLORATION ACCESS ROAD

Emergency Response and Spill Contingency Plan

Version 1

MARCH 2015

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DOCUMENT CONTROL

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1	March 2015	All	All	Emergency Response & Spill Contingency Plan

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EXECUTIVE SUMMARY

The Emergency Response and Spill Contingency Plan (ER SCP) is specific to the Amaruq Exploration Access Road, which is proposed to be constructed between the Meadowbank Gold Mine and the Amaruq site, a distance of 62.5 kilometres. The ER SCP is largely conceptual in nature at this time. It is a working document that will be reviewed and updated on a regular basis throughout Amaruq exploration activities, and Amaruq road construction, operations, and, if necessary, closure. The Amaruq ER SCP builds on similar plans that were prepared for the Meadowbank mine and Exploration site. Commonalities exist between all three ER SCPs.

The Emergency Response portion of the plan (ERP) addresses emergency scenarios related the transportation along the Amaruq access road and related activities along the road such as maintenance and clearing of snow from the road. Guiding the development of the ERP has been the principle that an effective plan must provide:

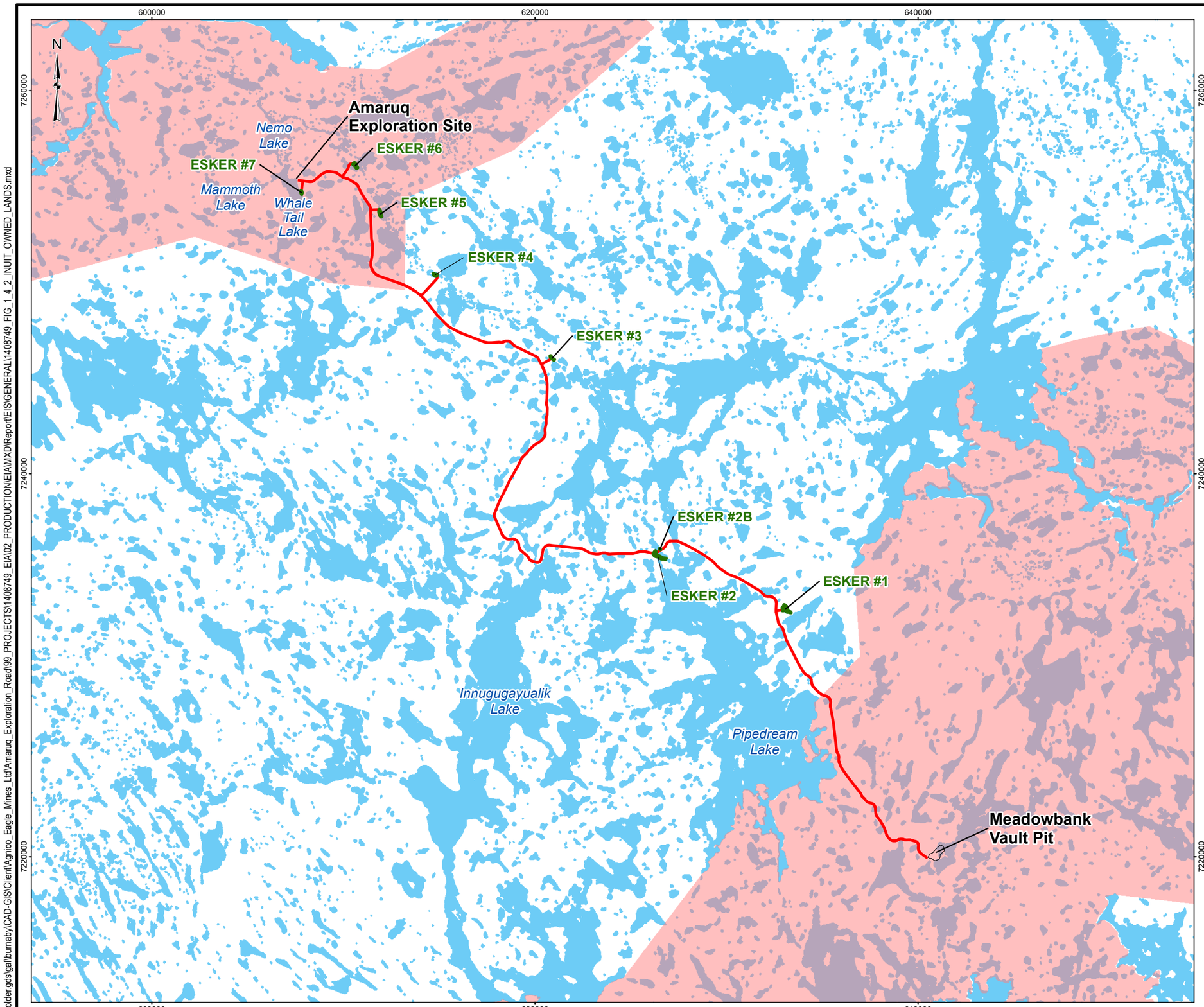
- A clear chain of command for health and safety activities;
- Well-defined corporate expectations regarding health and safety;
- Comprehensive hazard prevention and control methods; and
- Record-keeping requirements to track program progress.

The purpose of this plan is to provide a consolidated source of information for employees, contractors, and site visitors to respond quickly and efficiently to any foreseeable emergency that would likely occur in relation with Amaruq exploration activities, including those along the Amaruq road.

More specifically, in the case of a spill emergency, the response for a spill is outlined in the spill contingency measures portion of the plan and ensures that Agnico Eagle respects all applicable federal and territorial laws, regulations, and guidelines for spills to land, water and/or ice. External reportable spills will be reported by Agnico Eagle to the NT-NU 24-Hour Spill Report Line, Aboriginal Affairs and Northern Development Canada (AANDC), Kivalliq Inuit Association (KIA) and Nunavut Water Board (NWB).

The goal of the plan is to minimize the impacts of spills by the establishment of predetermined lines of response and plans of action, and to protect the safety of workers and contractors in the event of a spill. This goal will be achieved by applying best management practices, by promoting environmental awareness and safety, by encouraging prevention and maintenance, and by facilitating efficient cleanup of spills, releases, or discharges to land, water, ice and snow.

Substances covered by the plan include hydrocarbons products, liquid and solid hazardous substances, and compressed gas.



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LEGEND

- PROPOSED AMARUQ EXPLORATION ACCESS ROAD
- PROPOSED BORROW PIT
- INUIT OWNED LAND
- WATERBODY

REFERENCE

1. PROPOSED AMARUQ EXPLORATION ACCESS ROAD AND BORROW PITS OBTAINED FROM AGNICO EAGLE MINES LIMITED.
2. INUIT-OWNED LANDS OBTAINED FROM THE NUNAVUT-TUNNGAVIK INC.
3. WATERBODY DATA OBTAINED FROM CANVEC © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED.

DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14

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PROJECT
AGNICO EAGLE
AGNICO EAGLE MINES LIMITED
AMARUQ EXPLORATION ACCESS ROAD
NUNAVUT

TITLE
PROPOSED EXPLORATION ACCESS ROAD ON INUIT OWNED LANDS

Golder Associates

PROJECT		1408749	FILE No.	
DESIGN	DF	04 Mar. 2015	SCALE AS SHOWN	REV. 0
GIS	CD	16 Mar. 2015		
CHECK	DF	16 Mar. 2015		
REVIEW	GC	16 Mar. 2015		

FIGURE 1

For all spill emergencies, priority actions are: (1) respond quickly, (2) ensure safety, and (3) report the spill. The spill contingency portion of the plan outlines response organization and communication lines, and lists emergency response contacts. The person who causes a spill, or the first to observe a spill, is the first responder. The first responder shall contact a Supervisor or the Incident Commander, who will be responsible for initiating appropriate emergency spill response. The Amaruq Exploration Site will have a small Emergency Response Team (ERT) (and will also depend on the Meadowbank ERT, depending on the location of the spill along the access road), that will be trained and responsible for responding to large spills that might inadvertently occur along the Amaruq access road. All members of the ERT will be trained and familiar with emergency and spill response resources, the ER SCP, and appropriate emergency spill response methodologies. ERT members will receive extensive training on hazardous materials (Material Safety Data Sheets) and will learn how to respond while wearing Personal Protective Equipment (PPE). In addition, the Meadowbank Gold Mine's Environment Superintendent, Health and Safety Superintendent, and Health care personnel are all identified as key backups to Amaruq personnel in emergency including a spill emergency response. Alerting, notification and reporting procedures, with the associated responsible organisations and personnel are detailed in the SC ERP. Defined in the SC ERP are also the emergency response capabilities to be put in place and maintained. A description of how relevant agencies, organisations and Baker Lake will be involved in the development and application of this Plan is presented. Notably, the options for the medical transport of injured staff or persons both within and beyond the exploration site or access road are discussed [1].

Spill response kits will be strategically located where required at the Amaruq exploration site and Meadowbank Gold Mine sites, and a sea can having spill response equipment and supplies will be located near the midpoint of the road, this being close to the three bridges. All mobile equipment using the road will be equipped with an emergency spill kit or have immediate access through the road supervisor. A mobile environmental emergency trailer is located at the Meadowbank Gold Mine and at the Amaruq Exploration Site for the respective ERT's to use along the access road.

Action plans will first involve standard and appropriate spill control and containment techniques (e.g., dikes and trenches, floating booms, etc.). Free-product will be recovered as much as possible using vacuums, pumps, etc. and placed in appropriate containers. Absorbent materials will be used to soak up residual products. Contaminated materials will be salvaged, put into appropriate containers, and labelled for temporary storage. Depending on the nature of the contamination, solid materials will either be treated on-site or at Meadowbank, disposed off-site at Meadowbank, if appropriate, or shipped off-site to an approved treatment and disposal facility.

[1] There will be an airstrip at the Amaruq site, which will accommodate small aircraft, including those used for MEDEVACs. The Meadowbank mine airstrip will accommodate larger aircraft such as a Boeing 737.

DESCRIPTION OF AMARUQ EXPLORATION ACCESS ROAD

The Amaruq Exploration property is a 408-square kilometre exploration property located on Inuit Owned Land approximately 150 kilometres north of Baker Lake and approximately 50 kilometres northwest of the Meadowbank mine. Agnico Eagle purchased exploration rights to the Amaruq property from Nunavut Tunngavik Incorporated in April 2013. The Kivalliq Inuit Association issued Agnico Eagle a land use permit for exploration purposes. Similarly, the Nunavut Water Board issued Agnico Eagle a water licence for exploration purposes.

In July 2013, an exploration drilling program was initiated. The results of the drilling showed promising gold mineralization and drilling continued in October 2014 to continue to advance an inferred satellite pit deposit. Drilling will continue in 2015 as weather permits to progress the inferred deposit into a resource estimate to allow for feasibility studies to be presented in 2016.

Accelerating the year-round exploration is important to advance this site into the feasibility stages and to possibly build an exploration ramp in 2018, following the construction of the access road. Unfortunately, year-round exploration and the future fuel requirements for advanced exploration at the Amaruq property is not possible using a winter road. This caused Agnico Eagle to look at possible locations for an exploration access road between the Meadowbank mine and the Amaruq Exploration site to allow safe and efficient year-round transport of fuel, equipment, supplies, and personnel. Information related to the construction and operation of the exploration access road is presented in this main application document in support of the Type B water licence application and NIRB screening of the proposed access road.

The proposed access road route selected is 62.5 kilometres long. The road surface will be 6.5 metres wide, with 3 bridges, 8 large open bottomed arch culverts, 28 corrugated round culverts to pass watercourse crossings and many other localized drainage culverts to prevent erosion, reduce thaw susceptibility and washout of the road during freshet are proposed to be installed. The bridges, open bottom arch culverts and round culverts will allow normal river and stream flow, and fish migration at road water crossings. The Amaruq Exploration Access Road will have seven borrow areas with short spur roads, will use the Vault Pit as a Quarry and be a private access road constructed on Crown Land and Inuit Owned Land by Agnico Eagle.

After selecting the proposed route for the road, preliminary baseline studies were carried out in 2014 (and are ongoing) including a traditional knowledge study, archaeological, aquatic and wildlife surveys, water crossing assessments and gravel borrow pits appraisals. Preliminary engineering for a proposed road construction design is also underway.

ACRONYMS

AANDC	Aboriginal Affairs and Northern Development Canada (formerly INAC)
Agnico Eagle	Agnico-Eagle Mines Limited
ANFO	Ammonium Nitrate – Fuel Oil, a type of explosive
ATV	All-Terrain Vehicle
Amaruq road	Amaruq Exploration Access Road
CCME	Canadian Council of Ministers of Environment
DFO	Department of Fisheries and Oceans Canada
EC	Environment Canada
ECC	Emergency Coordination Centre
EMC	Emergency Measures Counsellor
EMS	Environmental Management System
EPP	Emergency Preparedness Plan
ERP	Emergency Response Plan
EMS	Environmental Management System
ERTC	Emergency Response Team Coordinator
ERT	Emergency Response Team
ETA	Estimated Time of Arrival
GN	Government of Nunavut
HR	Human Resources
H&S	Health and Safety
ICC	Incident Command Centre
HAZCOM	Hazards Communication
HAZMAT	Hazardous Materials
JHSC	Joint Health and Safety Committee
INAC	Indian and Northern Affairs Canada
KIA	Kivalliq Inuit Association
Medevac	Bedside to bedside ground and air ambulance provider
MSDS	Material Safety Data Sheet
NIRB	Nunavut Impact Review Board
NT	Northwest Territories
NU	Nunavut
NWB	Nunavut Water Board
OIC	Official In-Charge
PCB	Polychlorinated Biphenyls
PPE	Personal Protective Equipment
ppm	Parts per million
RCMP	Royal Canadian Mounted Police
SCP	Spill Contingency Plan

TBD	To be determined
WHMIS	Workplace Hazardous Materials Information Sheet

SECTION 1 • INTRODUCTION

1.1 Overview

Agnico-Eagle Mines Limited (Agnico Eagle) is committed to responding to emergencies of all types and will ensure that all participants and employees are aware of their roles and responsibilities in the case of an emergency. For spills, prevention is the key and Agnico Eagle is committed to preventing spills and will be prepared to take appropriate action in case of an accidental spill. This Emergency Response and Spill Contingency Plan (ER SCP) will remain conceptual for the purposes of the permitting process. It is a working document that will be reviewed and updated on a regular basis throughout the Amaruq access road construction, operations, and closure. Further details will be added following the completion of permitting and it will subsequently be updated periodically to reflect any changes to site specific protocols, teams, and management contact information. The Amaruq ERP builds on similar plans that were prepared for the Meadowbank mine and the Amaruq Exploration Site. Commonalities exist between all three Emergency Response Plans.

1.2 Purpose and Scope

The purpose of this ER SCP is to provide a consolidated source of information for employees, contractors, and site visitors to respond quickly and efficiently to any foreseeable emergency that would likely occur in relation to the Amaruq access road activities with particular emphasis on transportation and related activities. Guiding the development of this document has been the principle that an effective ERP must provide:

- A clear chain of command for health and safety activities;
- Well-defined corporate expectations regarding health and safety;
- Comprehensive hazard prevention and control methods; and
- Record-keeping requirements to track program progress.

Agnico Eagle Mines Limited (Agnico Eagle) will ensure that all employees, contractors and site visitors fully understand and comply with all legislated safety standards, and the policies and procedures outlined in the ERP.

Furthermore, the goal of the Amaruq access road ER SCP is to minimize the impacts of spills by the establishment of predetermined lines of response and plans of action, and to protect the safety of workers and contractors in the event of a spill. These are core values of the company as supported by Agnico Eagle's Sustainable Development Policy (see Section 1.5 Agnico Eagle's).

This goal will be achieved by applying best management practices, by promoting environmental awareness and safety, by encouraging prevention and maintenance, and by facilitating efficient cleanup of spills, releases, or discharges to land, water, ice and snow related to the use of the road.

This plan has been designed to facilitate effective communication and efficient cleanup of spills of potentially hazardous materials. These hazardous materials include:

- Hydrocarbon products such as diesel fuel, gasoline, hydraulic oil;
- Soluble solids such as ammonium nitrate prill;
- Liquids such as glycols and paints;
- Corrosive liquids such as sulphuric acid;
- Compressed (inert and flammable) gases; and
- Other hazardous substances.

Furthermore, the objectives of this ER SCP are to:

- Comply with federal and territorial laws, regulations and guidelines;
- Identify roles, responsibilities, and reporting procedures;
- Detail plans of action to be followed in the event of a spill along the Amaruq road;
- Provide readily accessible emergency information to the cleanup crews, management, and government agencies;
- Promote the safe and effective recovery of spilled materials; and
- Minimize the environmental impacts of spills to land, water, ice and snow.

This plan applies to all Agnico Eagle employees and any contractors associated with the Amaruq road. It will be reviewed annually, or more frequently as required, to ensure compliance with applicable legislation, to evaluate its effectiveness and to continually improve procedures. All employees, contractors and site visitors are encouraged to offer suggestions to eliminate potential hazards, minimize spills and improve work procedures.

1.3 Related Documents

Amaruq Road documents containing information related to this Plan include:

- Conceptual Closure and Reclamation Plan for the Amaruq Road; and
- Amaruq Road Management Plan.

1.4 Applicable Legislation

Spills of potentially harmful substances to the environment are covered by existing federal and territorial regulations. A complete list of applicable legislation is provided in Appendix G for spills to land, water and/or ice. The Amaruq Exploration Site and access road affiliates will put into place operational policies and procedures, which meet or exceed the required regulations, guidelines and policies applicable to roads in Nunavut. The main applicable acts and regulations are, but are not limited to:

Federal legislation:

- *Canadian Environmental Protection Act;*
- *Environmental Emergency Regulations;*
- *Transportation of Dangerous Goods Act* and *Regulations.*

Territorial legislation:

- *Environmental Protection Act (Nunavut);*
- *Used Oil and Waste Fuel Management Regulations;*
- *Work Site Hazardous Materials Information System Regulations;*
- *Transportation of Dangerous Goods Act* and *Regulations.*

Guidelines and policies:

- *Guidelines for the Preparation of Hazardous Material Spill Contingency Plans* (Environment Canada (EC))*;*
- *Spill Contingency Planning and Spill Reporting in Nunavut. A Guide to the New Regulations* (Government of Nunavut (GN));
- *Environmental Guideline for Contaminated Site Remediation* (GN)*;*
- *Guidelines for Spill Contingency Planning* (Indian and Northern Affairs Canada (INAC)).

1.5 Agnico Eagle's Sustainable Development Policy

Our Commitment:

At the core of our Policy we are committed to creating value for our shareholders by operating in a safe, socially and environmentally responsible manner while contributing to the prosperity of our employees, their families and the communities in which we operate. This has translated into the four fundamental values of our Sustainable Development Policy: operate safely, protect the environment, and treat our employees and communities with respect.

This means we commit to:

- Promote leadership, personal commitment and accountability to these principles from all employees and contractors, both on and of f the job;
- Assess potential impacts and risks associated with our activities throughout the life cycle of our projects or operations, including impacts of purchasing or acquisition decisions on the basis of our sustainability values;
- Ensure sufficient resources are allocated to implement and manage these commitments;
- Design and operate our facilities to ensure that effective controls and technologies are in place to minimize and mitigate the identified risks;

- Evaluate, control, eliminate or minimize risks through the implementation of a Responsible Mining Management System;
- Verify regularly our performance;
- Strive for continuous improvement by setting targets, measuring results against those targets and recognizing and rewarding performance;
- Comply in full with our internal policies and Code of Business Conduct and with the laws and regulations in each country in which we operate;
- Implement emergency response plans to eliminate or minimize and mitigate the impacts of unforeseen events;
- Engage in open and transparent communication and reporting of our policies, programs, payments to government and performance to our stakeholders;
- Provide appropriate planning and supervision to ensure that our policies, procedures and Responsible Mining Management System are implemented by all.

SECTION 2 • EMERGENCY RESPONSE PLAN MANAGEMENT

2.1 Organization and Job Responsibilities

This section details the roles and responsibilities of all parties involved in emergency response planning and implementation for the Amaruq Exploration Site, including the Amaruq road.

2.1.1 Exploration Manager

The Exploration Manager is responsible for implementing and maintaining the ERP. In addition, the Exploration Manager's responsibilities are to:

- Act as a spokesperson on behalf of Agnico Eagle with the public, media, and government agencies, as required;
- Prepare and submit any formal reports (within the required time frame) to regulators and Agnico Eagle management detailing the occurrence of an emergency (this includes submitting an incident reporting form);
- Ensure that the Health and Safety (H&S) and Environment Superintendent have the means (financial and otherwise) to ensure that all required resources are made available, or provided from off-site if required;
- Work with the H&S, Human Resources (HR) and Environment Superintendent to evaluate what training is required by all staff, ensure that all staff are given appropriate training, and ensure that all staff are retrained as needed;
- Ensure that the HR Superintendent has the means (financial and otherwise) to ensure that all employees' training requirements are current;
- Ensure that inspections of emergency response training practices and emergency response equipment are carried out;
- Ensure that emergency response exercises are conducted annually,
- Ensure that the results of the regular inspections are used to improve emergency response practices, and improve relevant plans accordingly;
- Complete an annual detailed review of the ERP with the management team and the Joint Health and Safety Committee (JHSC), with particular emphasis on the objectives and methods of the plan, and the job descriptions of all positions named within;
- Ensure that this ERP remains up-to-date, and that updated versions are available on request;
- Ensure that updates to new emergency communications information (names, phone numbers, changes in reporting structure, etc.) are distributed as soon as the new information becomes available; and
- Keep a formal record of distribution and amendments to the ERP.

2.1.2 Emergency Response Team (ERT)

No single department can handle an emergency alone. Everyone must work together to manage the emergency and coordinate the effective use of all available resources. The Amaruq site will have an **Emergency Response Team (ERT)** trained and responsible for firefighting, controlling spills, and assisting with medical and other emergencies that may occur at the Amaruq Exploration Site, including any along the Amaruq road. The team members will attend regular training sessions.

Therefore, at the time of any emergency, all management team and/or their designate must report to the Emergency Coordination Centre. The ERT structure lends support, fosters efficiency and provides additional knowledge during an emergency response situation.

The Official In-Charge maintains the overall coordination and direction of the emergency response, and ensures the continued safety of all employees and the public. However, the development of the overall emergency response plan is prepared with the help of the Environmental Superintendent or designate of the sector affected by the emergency.

The remainder of the ERT will be given specific tasks to perform in order to assist with the management and coordination of the emergency response plan.

The roles and general responsibilities of the members of the ERT are described further in this section.

2.1.2.1 Official In-Charge

The Official In-Charge (Exploration Manager or designate) will take charge for overseeing and approving the overall emergency strategy.

Immediate duties of the Official In-Charge (OIC) include:

- Consult with the Incident Commander on the status of emergency;
- Appoint an Emergency Log Recorder to record the time and events, including all discussions, instructions and decisions made by the ERT;
- Issue specific tasks to the members of the Management team as they arrive at the Control Room;
- Brief the Emergency Response Team;
- Arrange for all reports to be presented at specific intervals to the ERT;
- Ensure that the safety of personnel is maintained throughout the operation;
- Ensure procedures are in place for prompt dispatch of requested personnel, materials and equipment to the emergency area;
- Finalize the recommendations of the Incident Commander for rescue and recovery operations;

- The OIC is the only person authorized to release information to Government Agencies, Corporate Office or the Local Communities. He may delegate this task to other members of the Emergency Response Team. Communications should be done with the following in mind:
    - Verify all information to be released;
    - Keep a record of all inquiries (media and non-media);
    - Do not speculate on causes;
    - Do not speculate on resumption of normal operations or when the problem will be solved; and
    - Advise that further updates will be forth coming.
- Notify corporate management if the following appear probable:
    - Fatality;
    - Injury that could probably become item of local, regional or national media interest;
    - A public health or environmental risk;
    - An incident involving chemicals where there is a large volume or the potential for a significant environmental effect;
    - A spill of effluent or contaminated water or chemical substance to an area off the Amaruq road (i.e., an external spill); and
    - Government authorities will become involved.
- Ensure all response teams, regulatory agencies and any other agency on emergency alert notice are advised when the emergency has ended;
- Ensure all documentation (i.e., notes, log sheets, written instructions, etc.) is gathered for the creation of the final report; and
- Participate in debriefing.

2.1.2.2 Incident Commander

The responsibilities of the Incident Commander include:

- Ensure Security has been notified of the emergency;
- Ensure the evacuation procedures have been activated, if required;
- Ensure that there are sufficient ERT members available to respond to the emergency;
- Ensure that the ERT has back-up support;
- Ensure that ERT has refreshments and nourishment (if the emergency is far removed from the Amaruq site or Meadowbank Site, such as on the Amaruq road, and requires several hours to be resolve);
- Assess the size and severity of the emergency and the likely consequences;
    - Establish response priorities;
    - If you believe the services of a rescue team are or may be necessary, do not delay in requesting their services;
    - Ensure that the emergency call-out procedures are followed;

- Maintain communication with the ERT Captain;
- Advise the OIC of all decisions regarding the rescue and recovery operations;
- Appoint sufficient personnel, equipment and outside services are available; utilize the members of the ERT to organize these resources;
- Advise the OIC when the emergency situation is under control and give the “All-Clear”;
- Participate in emergency investigation;
- Coordinate an orderly return to normal operating conditions;
- Arrange for a debriefing session, and utilize the services of all people involved in resolving the emergency;
- Review any procedures that may be related to the cause of the emergency:
    - If any revisions to the procedure(s) are required, ensure they are communicated to all employees that could be affected;
    - Alternatively, if from the accident investigation it is determined that new procedures are required, ensure that these procedures are formulated and communicated to the affected employees; and
- Compile the final report.

2.1.2.3 Emergency Log Recorder

The Official In-Charge will appoint an Emergency Log Recorder. The log is intended to be a progressive record of the events from the start of the emergency through all phases up to termination, and will be used in the preparation of the final report. It is important that the log be legible and that all information be recorded.

Emergency log information:

- Date and time the incident was reported, and who reported the event;
- All subsequent developments as they occur;
- All phone calls, all discussions, and decisions made; and
- Any other information that needs to be captured for the final report.

All the sheets of paper should be numbered. All the pages have to be initialed by the Emergency Log Recorder and the Official In-Charge. The official document will stay with the Health and Safety Department upon completion of the emergency.

2.1.3 Emergency Measures Counsellor (EMC)

The responsibilities of the Emergency Measures Counsellor (EMC) will be to:

- Mobilize all ERT personnel, equipment, personal protective equipment and supplies, as required, to the site of the emergency;
- Assist in developing and implementing emergency response training programs and exercises;

- Review and update Emergency Fire Procedures annually on a minimum basis;
- Consolidate and maintain site Fire Prevention and Fire Response Plans;
- Maintain all plans, records, and logs relating to fire prevention and response;
- Ensure fire incident reports are filed, detailing the causes and responses to fires;
- Ensure that all firefighting equipment is inspected regularly and maintained functional;
- Ensure that fire extinguishers carried by all vehicles are in proper working order;
- Ensure that muster stations remain clear of debris and any other materials that may restrict or limit access; and
- Perform regular inspections of firefighting equipment.

2.1.4 Environment Superintendent

The following are the responsibilities of the Environment Superintendent:

- Provide technical advice on probable environmental effects resulting from an emergency and how to minimize them;
- Provide advice to the Incident Commander for appropriate response procedures as it relates to minimizing the potential impacts on the environment;
- Be involved in emergency response training exercises;
- Contribute to the annual review of the ERP with the H&S Department;
- Assist in implementing a routine site inspection and recording/reporting program for environmental spills that occur on site and along the Amaruq road;
- This program is to address all applicable issues in relevant legislation pertaining to chemical handling, labelling, reporting, and health and safety requirements; and
- Assist in developing sampling and testing or monitoring programs for water, soil and air that has been or may have been directly affected by an emergency.

2.1.5 Health and Safety Superintendent

The Health and Safety Superintendent responsibilities are to:

- Oversee all activities that require security or nursing;
- Arrange for MEDEVAC transport;
- Monitor contractors' health and safety performance for compliance with applicable legislation and their own safety programs;
- Ensure that all new site personnel are properly oriented;
- Maintain up-to-date copies of all site procedures and make them available to new personnel;
- Ensure that all H&S employees are responding to all emergencies and all specific needs during their absence;
- Ensure that the JHSC is performing monthly tours and meetings;
- Ensure that the representatives from employer, employees, and major contractors seat on the JHSC;

- Ensure proper and timely documentation/reporting of inspections, investigations, and meetings; and
- In cooperation with the Environment Department, deal with wildlife issues in accordance with the mitigation measures set out in the relevant environmental plans.

The H&S Superintendent may require the assistance of outside persons to conduct damage assessments beyond the scope of the capabilities of on-site personnel. The H&S Superintendent, with the assistance of the Exploration Manager, will identify an appropriate resource for damage assessment. When identified, this person or organization will be listed in this ERP.

2.1.6 Human Resources Superintendent

The following are the responsibilities of the Human Resources (HR) Superintendent:

- Track all emergency, and health and safety training that on-site staff have received, and when retraining is required;
- Notify the Incident Commander when retraining is required;
- Ensure that employees are retrained in appropriate emergency response skills; and
- Consult with appropriate organizations regarding retraining requirements and schedules.

2.1.7 Health Professional (Site First Aid)

The on-site Health Professional(s) are responsible for the following:

- Provide on-site first aid and other medical support;
- Provide additional training for ERT members, if necessary;
- Ensure that the first aid room is properly organized and equipped with advanced first aid equipment; and
- Ensure that the first aid room is maintained at all times.

2.1.8 Joint Health and Safety Committee

The Joint Health and Safety Committee (JHSC) is responsible for the following:

- Review the Emergency Response Plan.

2.1.9 All Employees

All employees are responsible for the following:

- Ensure personnel safety;
- Know the location of first aid stations and supplies, emergency and safety equipment (e.g., fire water pumps, fire extinguishers, monitors, self-contained breathing apparatus), Materials Safety Data Sheets (MSDS) and muster stations;
- Wear appropriate Personal Protective Equipment (PPE) for the task at hand;
- Report all emergencies to their supervisor; and

- Report by radio on the dedicated emergency channel the type, the location, and the nature of an emergency. This includes possible injuries, trapped personnel, and the presence of any chemical or explosive hazards.

2.1.10 Supervisor

The Supervisor is responsible for the following:

- Ensure personnel under their supervision are equipped with and are wearing appropriate PPE for the task at hand;
- Perform a preliminary assessment of an emergency; and
- Inform the Incident Commander of an emergency and provide details regarding the type, the location on site or on the road, and the nature of the emergency, including possible hazardous materials involved and health and safety concerns.

2.1.11 Other Personnel

Depending on the nature of the emergency (medical, electrical, mechanical, fire, etc.) other site personnel, including the site electricians, site mechanics, and others, may be called upon to play key roles in emergency response.

2.1.12 Emergency Response Contact Information

Table 2.1 provides internal Agnico Eagle contact information in the event of an emergency[2]. External contacts in the event of an emergency are provided in table 2-2. This includes medevac, trauma, health organizations, and regulatory agencies.

2.1.13 Emergency Coordination Centre

Emergency operations will be directed out of the Emergency Coordination Centre (ECC) and the Incident Command Centre (ICC). The ECC will have a specific room, from where the following will take place:

- Key decisions will be made and operations will be managed;
- Technical information to direct emergency activities will be provided;
- A communications centre will be established for emergency operations and to communicate with other organizations;
- Resource procurement will be provided and resource use will be directed;
- Any damage will be assessed and long-range objectives and plans will be developed; and
- Information on the emergency will be stored and disseminated to all necessary internal and external parties.

[2] Many personnel remain to be determined at this time and they will be added in the next update of the ERP.

The following information will be available at the ECC:

- Shutdown procedures for operations;
- Locations of hazardous material storage areas;
- Locations of emergency and safety equipment;
- Locations of first aid stations and muster areas;
- Maps of site, road and environmental maps;
- Information on location of other communications equipment, including portable sets;
- Information on emergency power;
- Contacts for other utilities;
- Operating manuals;
- Materials Safety Data Sheets (MSDS);
- List of personnel with alternate skills for use in emergencies;
- Type and location of alarm systems;
- Accident and spill report forms;
- Accident status board and log book; and
- Notification lists, staff lists, contact lists, with regular and emergency telephone/paget numbers, etc.

Table 2-1 Internal Agnico Eagle Emergency Response Contact Numbers

Title	Name	Telephone Number
Senior Vice President Environment and Sustainable Development	Louise Grondin	416 847 8656 Cell:819 724 2020
Exploration Manager	Denis Vaillancourt denis.vaillancourt@agnicoeagle.com	819 874 5980 ext. 3605
Health and Safety Superintendent	To Be Determined (TBD)	TBD
Emergency Response Team Captains	TBD	TBD
Environmental Coordinator	David Frenette	819 874 5980 ext. 3622
Environmental Technicians	TBD	TBD
Incident Commanders	TBD	TBD
On site Medics	TBD	TBD
Site Security	TBD	TBD

Table 2-2 External Emergency Response Contact Information

Organization	Authority Telephone Number	Fax Number
RADIO: Channel 1 Call Medic, Medic, Medic or Fire, Fire, Fire		
Medical Emergency		
Kivalliq Medevac	Baker Lake MEDEVAC number 867-793-4720 Keewatin Air 867-645-4455 (Rankin Inlet Dispatch) Keewatin Air 204 888 0100 (Winnipeg)	
Health Sciences Centre Winnipeg – Trauma Team	204-774-6511 or 204-787-3901	
Poison Control Centre - Qikiqtani General Hospital General Inquiries	Emergency 867 979 7350 867 979 7300	
Kivalliq Health Services – Baker Lake (Health Centre)	867 793 2816	867 793 2813
Baker Lake Fire Emergency - Ambulance	867 793 2900	
Law Enforcement, Wildlife, Rescue		
RCMP	867 793 1111	
Workers Safety and Compensation Commission	867 979 8637	867 979 8501
Coroner	867 975 7292 867 975 1063 (cell)	
Conservation and Wildlife Officer – Baker Lake	867 793 2944	
Hazmet and Spills		
NT-NU 24-Hour Spill Report Line	867 920 8130 spills@gov nt ca	867 873 6924
Canutec	613 996 6666	
Agnico Eagle Mines Limited		
Agnico Eagle Exploration Manager Denis Vaillancourt denis.vaillancourt@agnicoeagle.com	819 874 5980 ext. 3605	
Other Numbers		
Kivalliq Inuit Association	867 645 5725	867 645 2348
Nunavut Water Board	867 360 6338	867 360 6369
AANDC Inspector	867 975 4548	867 979 6445
Environment Canada, Enforcement Branch	867 975 4644	867 975 4594
Department of Fisheries and Ocean (DFO)	867 979 8000	867 979 8039
Manager, Environmental Protection, GN	867 975 7748	867 975 5981
Baker Lake Hamlet Office	867 793 2874	
Peter's Expediting	867 793 2703	

The ICC will be located at a safe and secure place near the site of the emergency. All responses and mitigation efforts developed at the ECC will be implemented through the ICC.

In the event of an emergency, security personnel may be required to establish and maintain a security perimeter to prevent or minimize injury to personnel, to preserve evidence for investigation, or to prevent unauthorized access to the scene.

2.1.14 Training

The HR Superintendent will be responsible for documenting, tracking, and updating all training activities. Record of training requirements and training attendance will be kept, tracked and updated for all employees by the HR Superintendent to ensure that retraining occurs as required.

For site and road operations, Agnico Eagle will ensure a sufficient number of trained ERT members are on site at all times. All members of the ERT will be trained and familiar with emergency and spill response procedures. Emergency training will be conducted annually to ensure that a sufficient number of team members are available and that their training is up-to-date. The following will be included in the training:

- A review of the Emergency Response and Spill Contingency Plan and responsibilities of the team members;
- The nature, status, and location of fuel and chemical storage facilities;
- The location of on-site and off-site spill response equipment, and how to use it;
- Emergency contact lists;
- Desktop exercises of “worst case” scenarios; and
- The likely causes and possible effects of spills.

2.2 Emergency Response Equipment

The Emergency Measures Counsellor (EMC) will ensure that site drawings and equipment lists are posted conspicuously in key locations throughout the site so that important information is always readily available. This will include the following:

- Location and isolation points of energy sources;
- Location of emergency equipment (e.g., fire water pumps, fire extinguishers, monitors, self-contained breathing apparatus);
- Emergency procedures outlines, such as specialist firefighting, chemical neutralization;
- Location of equipment for combating pollution (e.g., booms, skimmers, pumps, absorbents, dispersants);
- Availability of internal and external emergency medical support (e.g., hospitals, health centres, ambulances, medical supplies, personnel with medical or first aid training);
- Location of toxicity testing facilities (e.g., gas and water);
- Location of wind direction/speed indicators;
- Directions on how to contact the local or regional weather forecasting service;
- Location of personal protective equipment and directions on its proper use; and

- Location of first aid stations and muster areas.

The Incident Commander, EMC, and H&S Superintendent will know where, throughout the exploration site, all of this information is posted and where emergency equipment is stored, including that located along the Amaruq road. These individuals will also be trained in the proper use of emergency equipment.

External emergency response equipment includes the mobile spill response equipment described in the Spill Contingency Plan.

2.3 Communication Systems

The primary basis for communication will be the phone system; back-up communication will be available via satellite. For on-site communication, hand-held radios will be mandatory for all employees working or travelling on the road, or in remote areas from the main camp. Back-up power sources and replacement batteries for communication equipment will be available to provide continuous, uninterrupted operation either at fixed facilities or at the site of an emergency.

Key site personnel will be accessible at all times by either portable radios, radios in vehicles, or office radios. The Health Professionals will carry a hand-held radio and will be available at all times. Security personnel will monitor the emergency channel twenty-four hours per day. Senior management personnel will rotate as “On-Call Managers” for after-hour emergencies. An accommodations list that highlights key personnel will be posted and updated as required.

Lists of employees trained in first aid and emergency response will also be posted. Employees and contractors who will be on site for extended periods will receive first time training and annually thereafter. This training will include the locations and use of emergency equipment, terminology used, and who needs to be contacted immediately in the event of an emergency.

2.4 Emergency Measures

In the event of an emergency, the employee will have to follow the emergency procedure:

- Emergency is initiated - by calling on two-way radio on Channel 1 – MEDIC-MEDIC-MEDIC or FIRE-FIRE-FIRE;
- All communication stops except for those involved with the Emergency i.e.: First Aid Room Attendants, Medics, ERT as required;
- All work stops in First Aid Room/Clinic, in affected area and, depending on seriousness of emergency, in the whole site; and
- First Aid Room Attendant/Medic will answer the phone and/or the radio.

Note: if the Health Professionals do not answer, then the Security Guard will answer and/or a Supervisor having a radio will answer so that Emergency Response can be initiated.

- Responder – will ask where the medic is required;
- Caller – will give a brief description of the emergency: name, location and what is wrong and/or required;
- Responder – will confirm location and details of incident and activate the ERT team. Security will be notified by responder and a page will be sent out to all ERT team members on site;
- The person at the casualty(s) will administer First Aid if trained to do so; and
- The Incident Command Center will be mobilized so as to ensure that communications, transportation, and effective deployment of ERT resources are conducted. It is mandatory that the Official In-Charge be notified immediately.

The ERT (minimum of 6 team members) will assemble as quickly as possible.

2.4.1 Muster Point

In the event an evacuation is necessary, it is important that all affected personnel leave the emergency area and congregate at a pre-determined area or *Muster point* so that a head count can be taken to determine if there are any missing persons. Employees must remain at the muster point until the supervisor of the emergency area gives permission to return to work. Proper areas will be identified as “Muster Stations”.

Upon hearing a fire alarm, smoke alarm, or evacuation alarm, employees shall:

- ***DO NOT PANIC*** – Always ensure that you are prepared for the weather conditions (dress appropriately, e.g. winter clothing during winter months);
- ***DO NOT DELAY*** and do not stay and finish work before taking the proper steps to evacuate;
- Always **close windows/doors** as you leave your office, etc.;
- Always **head to the *closest* EXIT** door and follow **EXIT** signs to the closest outside door;
- Once outside, go to the ***closest* “Muster Station”**;
- Once in **“Muster Station”**, stay put until relieved or instructed otherwise by your Supervisor;
- Your Supervisor and/or Senior Management person in your department will **conduct a tally (head count)** of everyone in his/her department (note: on night shift, the highest level of Management may be a front line Supervisor). Ensure that you get your name on the **tally form**;
- ***DO NOT ENTER*** a building when the alarm is sounding. Head straight to a “**Muster Station**”;
- ***Never go through a building*** to get to a **“Muster Station”**. Once you are outside, the first door you open should be the one to the **“Muster Station”**;
- ***Never disregard an evacuation alarm***. We understand that the system goes off without incident on occasion, but to disregard an alarm is to endanger your life and the lives of others;
- ***Stay in* “Muster Station”** until you are instructed to **“Stand Down”** by the Incident Commander. The only person authorized to initiate a **“Stand Down”** is the Incident Commander or the Exploration Manager or designate; and

- ***Do not leave*** **"Muster Station"** to go outside for a smoke. It is important for your Supervisor to know where you are at all times, especially during an emergency.

Failure to follow proper evacuation procedures will result in discipline.

2.4.2 Medical Evacuation Plan

In the event of serious injury, it may be necessary to remove the individual from the source of the danger and administer emergency first aid. The Health Professional will immediately be notified and take charge of the situation, and, if possible, ensure the safe removal of the injured person(s) to the First Aid Room.

- The ERT will respond and assist the Health Professional as necessary with equipment, treatment, etc.;
- The Health Professional and as many ERT members as required will respond to the incident site. When the Health Professional arrives at the scene, the First Aid Room will be notified;
- First aid will be administered to injured person(s); the injured person(s) will then be secured and transported to the First Aid Room. Vehicles transporting injured person(s) will have priority over any other vehicle on site or on the road;
- Once the "Mechanisms of Injury" and the patient's condition have been assessed, a decision will be made by the Health Professional whether a MEDEVAC is required and decide on ground or air transportation; and
- As per guidelines for transportation, the "Mechanism of Injury" and/or patient condition, the Health Professional will contact one of the following Medical Facilities:

Health Sciences Centre Winnipeg	
Trauma team	204 774 6511 or 204 787 3901
Main ER doctor in charge	204 774 6511
Baker Lake Health Centre	867 793 2816
Churchill Health Centre	888 884 8242 or 204-675-8881
Rankin Inlet Health Centre	867 645 8300 (After hours 867 645 6700)
Dr. Lee (Agnico Eagle –Meadowbank) Medical Director will be notified	

If a MEDEVAC is required, the H&S Superintendent or designate, will call Keewatin Air at one of three numbers:

- Baker Lake MEDEVAC contact 867-793-4720
- Keewatin Air 867-645-4455 (Rankin Inlet Dispatch)
- Keewatin Air 204 888 0100 (Winnipeg)

The following information will be relayed to the receiving Medical Facility selected and to MEDEVAC dispatcher:

- Give patient(s)'s name, age, mechanism of injury, nature of injuries, and medical condition. Indicate all tests and treatment already done as well as ALL of the medication that has been administered to patient including the patient's past medical history and medication that he/she is taking; and
- A transfer sheet should be included and, if possible, faxed to the Medical Facility receiving the patient(s) being MEDEVACed (the report should indicate which Medical Facility was contacted).

If a decision is made that a MEDEVAC is necessary, the following sequence of steps will be taken:

- The patient(s) will **STAY in First Aid Room** until his/her **condition is stabilized**;
- Unnecessary delays will be avoided in transporting patient(s) to health care providers at the receiving Medical Facility;
- When MEDEVAC personnel arrive on site by air - they will help establish if the patient(s) is GOOD to go as far as transportation goes;
- (Nurse / Medic) will take instructions from Medical Director and act according to his/her instructions.
- The Health Professional may be required to escort the patient(s) to the receiving Medical Facility; and
- All decision/interventions will be documented with time lines.

If the **MEDEVAC** comes to site with a **Medical crew:**

- The **MEDEVAC** crew will call ahead to give their Estimated Time of Arrival (ETA);
- The Manager on Duty or designate will ensure that a vehicle is sent to the airstrip to meet the plane before the ETA;
- The **Medical crew** with their equipment will be brought to the First Aid Room; and
- Once the **MEDEVAC** equipment is in place, the **ERT** team will assist the **MEDEVAC Medical crew,** and (Nurse / Medic) with the transfer of the patient to the ambulance, and into the aircraft.

After the aircraft has left Agnico Eagle – Amaruq Exploration Site, the (Nurse / Medic) will notify the receiving Medical facility with the ETA to their closest airport. The **MEDEVAC** pilot will advise receiving airport air traffic controller that an ambulance is required for the transport of patient(s) to the receiving Medical Facility.

Upon arrival of the aircraft to the airport nearest the receiving Medical Facility, the receiving team at the Medical Facility will be notified and a designated person will call the Incident Command Centre (ICC) and update them on their arrival and the next steps to be taken (e.g. transportation to receiving Medical Facility).

The receiving Medical Facility will communicate with the Amaruq Health Professional on frequent basis and provide an update on the patient(s)' condition and treatment, including any surgical procedures.

As soon as steps have been implemented to properly attend to the injured person(s), the Incident Commander will notify the appropriate authorities of the accident by telephone and provide as much information as possible. A complete accident description and investigation form will be submitted as soon as possible. The accident description and investigation form will be completed and submitted to the Exploration Manager. Unless some action is required to remove an immediate hazard, the site of any serious accident will be cordoned off and remain unchanged until clearance is received from the appropriate authorities.

All operations type work will be suspended until the Health Professional is back in the First Aid Room. The incident scene, materials, machinery, medical equipment, etc. will remain undisturbed until the investigating team has conducted the investigation. This type of incident is considered a "Reportable Incident", therefore the Mines Inspector shall be notified without delay. The Official In-Charge will be responsible to ensure that reporting is properly completed. Under no circumstances shall any person move, or otherwise interfere with any wreckage or equipment at the scene of a "Reportable Incident" until an inspector has conducted an investigation of the incident and has given permission to do so.

The Official In-Charge will make all necessary calls to the outside for notification purposes (e.g. Corporate Office notification, Mines Inspector, RCMP, etc.).

If the incident is of a fatality, the Coroner or, in his/her absence, the RCMP, is in total control of the incident scene. The scene is to remain undisturbed until orders have been issued by either of these two authorities. The scene will then be released to the local authorities such as the Mines Inspector for their investigation.

2.6 Emergency Scenarios

2.6.1 Fire

All Amaruq Road operating personnel will receive basic training in the use of fire extinguishers. This training will be tracked by the HR Superintendent.

For any situation involving fire, the first action will be to extinguish the fire if it is safe to do so and then report the incident. If the person cannot safely extinguish the fire, it must be reported as quickly as possible. In the event of a fire alarm, all employees not directly involved with fighting the fire will report to the designated muster location (see section 2.5.1). Employees will remain in this area until assigned other duties by the ERT or until given clearance that the emergency is over.

In the event that a fire causes damage to exploration equipment, vehicles, site buildings, or chemical containers, particulates and/or gases could be released into the air, and hazardous materials and/or other chemicals (e.g., fuels, oils, battery acid, etc.) could be spilled. In the short-term, this could result in air quality degradation, and potentially affect the local vegetation in the case of a spill or burn scar. Should such scenarios occur, the following actions will be taken, as required and WHEN IT IS SAFE TO DO SO:

- Air quality monitoring for airborne emissions;
- Collection and incineration of all putrescible (food items); and
- Removal of debris and contaminated soil for disposal in the Meadowbank landfill or off-site at a licensed disposal facility.

Further detail on the cleanup of chemical spills is provided in the Spill Contingency Measures section of this Plan.

The Incident Commander will:

- Locate the source of fire;
- Dispatch the evacuation at the safest muster point;
- Assign a captain and his team;
- Ensure the security of all the ERT's members or any other service persons (Medics, Security Guard, electricians, etc.);
- If the intervention of the mine inspector is necessary for a special investigation, ask the Security Department to ensure the integrity of the fire scene; and
- Call the end of the emergency measures, and invite everyone evacuated to return to their original location.

The Exploration Manager or designate can decide to use any available machinery to separate all or part of a building to protect people or minimize losses.

Incident reports are to be filed detailing the causes of the fire and responses undertaken. This information will be used by the EMC in subsequent fire prevention activities.

2.6.2 Aircraft Crash

Emergency response will begin as soon as an aircraft crash is identified or reported:

- When Amaruq Security Personnel are notified that an approaching aircraft (helicopter or airplane) is having difficulty, they will immediately notify the Exploration Manager or designate;
- In the event of a reported aircraft crash off-site, Amaruq Security Personnel will notify the Exploration Manager or designate;
- Emergency Response procedures will be initiated if required by ERT;

- If required for an off-site crash, a helicopter will be requested from the Meadowbank mine or Baker Lake to transport ERT personnel and the Health Professional to the crash scene;
- The ERT on scene will make a preliminary assessment ;
- The Health Professional, with the ERT, will establish triage, treatment, transportation, communication, and staging;
- The Incident Commander will direct all emergency response actions, and assess the need for additional resources keeping the appropriate persons updated as to all actions;
- The RCMP will establish access and traffic control, and assist the Coroner in body recovery and identification, if necessary.
- The Incident Commander will instruct Emergency Response personnel to not move debris associated with the wreckage, e.g. aircraft remnants, passenger belongings, etc. unless there is imminent danger of items being destroyed, or unless they inhibit access to passenger rescue;
- The Coroner/RCMP is responsible for the identification, movement and/or removal of the fatality. Unauthorized personnel are not to move the dead without express approval of the Coroner/RCMP, except when there is a question of whether the person is deceased or if the body is in danger of being destroyed. In all cases involving the movement of a body, personnel moving the body shall make careful note of the location and condition of the body for the Coroner/RCMP; and
- Upon notification of an air disaster, NAV Canada will be notified and they will be responsible for air traffic in proximity to the scene, with immediate regulatory control of airspace around the area. They will keep the airspace clear of intrusive air traffic, to the limits of the regulations.

2.6.2.1 Recovery:

Recovery immediately follows emergency response. It involves direction from the Exploration Manager or designate in order to:

- Maintain access control to the scene;
- Provide emergency social services (critical stress debriefing) for employees and rescue workers;
- Investigate the accident; and
- Clean-up the crash site.

2.6.3 Toxic Gas Release

In the event of a toxic gas release, the following actions will be taken:

- Immediately evacuate the area/building and notify the Incident Commander;
- If possible and safe to do so, turn off the source of the gas and ventilate (i.e., open windows/doors to outdoors) the area;

- Isolate the area and restrict access to ERT personnel only; and
- Implement air quality monitoring.

A general response procedure for the release of compressed gases is provided in the Spill Contingency Measures portion of this plan.

2.6.4 Amaruq Road Emergency Response

The Emergency Response Team will repond to emergencies along all roads; this includes spill response. A sea can holding spill response equipment will be located near the mid point of the Amaruq access road. As well, additional spill response equipment will be located at the Amaruq Exploration Site and Meadowbank sites, including mobile trailers. Further detail on spill response measures along the Amaruq access road is provided in the subsequent sections of this plan.

SECTION 3 • SPILL RESPONSE DEFINITIONS

3.1 What is a Spill?

For the purposes of this Plan, a major spill is defined as an accidental release of product into the environment that has the potential for adverse impact. The Emergency Response Team (ERT) must be notified immediately of a major spill or emergency. As an example, for the purpose of this Plan, a tanker truck overturn on the Amaruq access road is considered a major spill (Section 10 • Potential Spill Analysis provides response procedures for an incident of this type).

A minor spill is defined as any hazardous chemical spill that does not involve highly toxic, highly reactive, or explosive chemicals, in a situation that is not life threatening or posing an environmental threat. Furthermore, this type of spill presents a manageable physical or health hazard to personnel who, when wearing proper personal protective equipment (PPE), will not be exposed to any chemical at a level that exceeds any recognized action levels or permissible exposure limits. Minor spills will still to be reported to the Environment Department but are not expected to involve emergency responders.

3.2 Materials and Reportable Spills on Site

As a precaution, if there is any doubt as to whether the quantity spilled meets the minimum reportable thresholds listed in Table 3-1[3], the spill incident will be reported to the spill line. Furthermore, Agnico Eagle will maintain a detailed log of all spills of hazardous materials, including non-reportable spills.

To ensure compliance with Section 36 (3) of the *Fisheries Act*, all spills of fuel or hazardous materials, regardless of quantity, into a water body or onto ice will be reported immediately to the NT-NU 24-Hour Spill Report Line[4] (phone 867 920 8130, fax 867 873 6924, spills@gov.nt.ca).

[3] Aboriginal Affairs and Northern Development Canada (AADNC). 2010. Guidelines for Spill Contingency Planning. Last modified-2010/09/15 http://www.aadnc-aandc.gc.ca/eng/1100100024236/1100100024253#sub1A_6

[4] Nunavut Environmental Protection Act. *Consolidation of Spill Contingency Planning and Reporting Regulations* R-068-93.

Table 3-1 Spill Quantities to be Reported to the Spill Report Line

Transportation Class	Type of Substance	Compulsory Reporting Amount
1	Explosives	Any amount
2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity exceeding 100 L
2.2	Compressed gas (non-corrosive, non-flammable)	Any amount from containers with a capacity exceeding 100 L
2.3	Compressed gas	Any amount
2.4	Compressed gas (corrosive)	Any amount
3.1, 3.2, 3.3	Flammable liquid	100 L
4.1	Flammable solid	25 kg
4.2	Spontaneously combustible solid	25 kg
4.3	Water reactant solids	25 kg
5.1	Oxidizing substances	50 L or 50 kg
5.2	Organic peroxides	1 L or 1 kg
6.1	Poisonous substances	5 L or 5 kg
7	Radioactive substances	Any amount
8	Corrosive substances	5 L or 5 kg
9.1 (in part)	Miscellaneous substances	50 L or 50 kg
9.2	Environmentally hazardous	1 L or 1 kg
9.3	Dangerous wastes	5 L or 5 kg
9.1 (in part)	PCB mixtures of 5 ppm or more	0.5 L or 0.5 kg
None	Other contaminants	100 L or 100 kg

Note: PCB = polychlorinated biphenyls; ppm = parts per million.

SECTION 4 • HAZARDOUS MATERIALS ON-SITE

A variety of petroleum products and other hazardous materials will be used as part of exploration activities at the Amaruq site and will be transported over the Amaruq access road. Petroleum products will be stored in the Baker Lake tank farm, at the Meadowbank mine site and at the Amaruq exploration site[5]. Other hazardous materials will be used but in smaller quantities.

Material Safety Data Sheets (MSDS) of all materials transported, stored and used on-site will be made available at strategic locations near to where hazardous materials are stored or utilized. Appendices B to F also provide general response procedures for specific spilled chemical substances.

[5] All fuel at the Amaruq Exploration Site will be stored in double walled envirotanks.

SECTION 5 • SPILL PREVENTION AND INSPECTIONS

Spill response is reactive while spill prevention is proactive. Transport, transfer and storage of materials will be performed by trained personnel using secondary containment, with well-maintained equipment. Refuelling stations in Baker Lake, at the Meadowbank mine and at the Amaruq Exploration Site will be equipped with a lined area to contain any minor leaks or spills while refuelling. Transfer of fuel from tanks to tanker trucks will be performed with the aid of fuel pumps. Good housekeeping practices will be adopted, especially in areas such as storage facilities, loading and unloading zones. Regular worksite inspections will be conducted to identify measures to minimize the risk of spills. As is the current practice at the exploration site, site orientations will be conducted with all employees and contractors, and spill prevention and response will be discussed in detail. During site orientation, inductions will be scheduled to ensure employees have an understanding of the steps to be undertaken in the event of a spill. All personnel will be trained to be aware of the potential hazards associated with the fuel/chemicals with which they will be assigned to work.

Agnico Eagle supports the following general principles for spill prevention:

- Provide up to date and accessible Material Safety Data Sheets (MSDS) for all hazardous materials to designated emergency response personnel, exploration site health staff, and to the Baker Lake health centre staff;
- Daily inspection of fuel/chemical storage areas for leaks (including flex connectors and plumbing) and platform shifting;
- Train workers in the use of safe work procedures for hazardous materials, and procedures to clean up spills;
- Encourage workers to take reasonable measures to prevent spills;
- Keep drums/containers sealed or closed;
- Vehicles using Agnico Eagle roads will abide with the rules of the road, and carry spill response equipment. The vehicle must have the capability of communicating with either the Meadowbank mine or the Amaruq exploration site;
- Place drums/containers within a suitable form of secondary or spill containment;
- Keep “overpack” or “salvage” drums nearby to contain leaking drums;
- Segregate incompatible materials;
- Ensure chemical storage areas are adequately protected from weather and physical damage; and
- Provide adequate spill response materials at storage areas (details of spill prevention equipment are outlined in Section 8 • Spill Response Equipment).

SECTION 6 • SPILL RESPONSE ORGANIZATION

This section addresses the response organization and the responsibilities of each individual during response to an incident. All employees and contractors will be aware of the locations of the SCP. During site orientation, inductions will be scheduled to ensure employees and contractors have an understanding of the steps to be undertaken in the event of a spill. All employees and contractors will be shown where spill kits are stored, will be aware of their contents and be familiar in using spill equipment and responding to spills. All drivers will be required to be trained to respond to spills at a first response level. They will also have radios to call for assistance from the Amaruq environment personnel or the Emergency Response Team (ERT), if required. If the containment and cleanup of a spill is beyond the capabilities of Amaruq ERT, the Meadowbank ERT will provide assistance and , if necessary, assume control of the spill scene. Such a scenario is outlined in the text box below.

Figure 6-1 illustrates Agnico Eagle's spill/incident reporting procedure and the following sub-sections list the major responsibilities of site staff that will be participating in the emergency response.

Spill Emergency Response Procedure – An example

In the case of a large spill such as a tanker truck overturn on the Amaruq access road, the first person (first responder) to notice, or come in contact with any spill situation will initiate a Code 1. The Incident Commander at the Amaruq Exploration Site will respond to a Code 1 in conjunction with the Emergency Response Team (ERT). Major responsibilities such as initial coordination, spill cleanup and mobilizing the ERT are part of the Incident Commander's duties.

The Incident Commander will contact the Environment Coordinator and/or Exploration Manager or designate, who in turn will inform the Senior Vice-President Environment and Sustainable Development. After all information has been collected, the Environment Coordinator or designate will submit a spill report to the NT/NU Spill Line, Nunavut Water Board, Kivalliq Inuit Association, and Aboriginal Affairs and Northern Development Canada. Communications with the media will be the responsibility of the Exploration Manager or

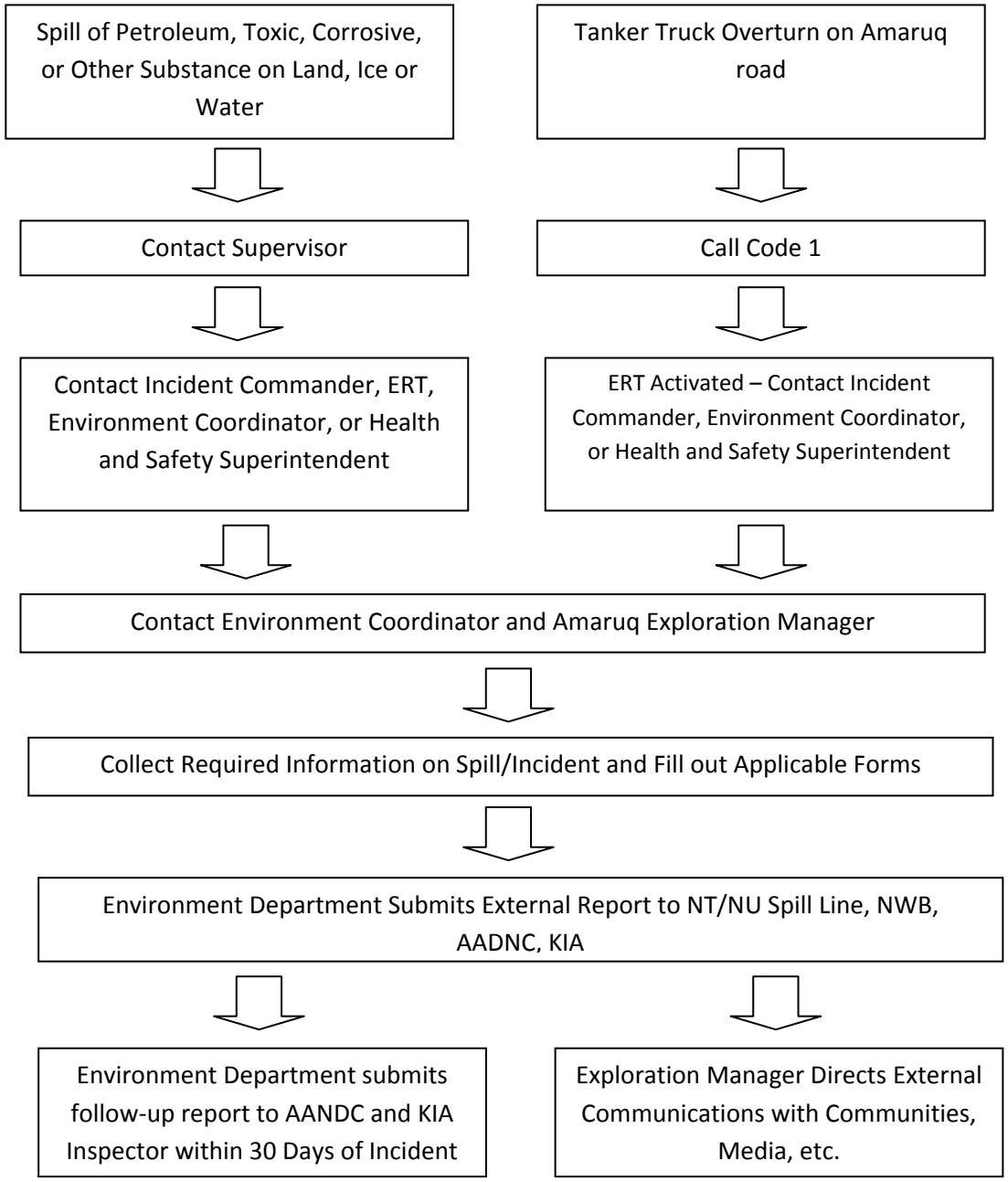

Figure 6-1 Spill/Incident Reporting Procedure

6.1 First Responder

The person who causes a spill, or the first to observe a spill, is the first responder. The responsibilities of the First Responder will be as follows:

- In case of a tanker truck overturn, initiate Code 1. Remain on radio to provide guidance to the ERT;
- In case of spill to land, ice or water, contact your Supervisor to report the incident;
- Identify spilled product and contain the spill, IF SAFE TO DO SO; and
- Participate in spill response as a member of the cleanup crew.

Supervisor

The responsibilities of the Supervisor will be as follows:

- Initially assess the severity of the incident;
- Contact the Incident Commander;
- Gather facts about the spill; and
- Participate in spill response as a member of the cleanup crew.

Incident Commander

Responsibilities of the Incident Commander (IC) will be as follows:

- Assume complete authority over cleanup personnel and the spill scene;
- Assume responsibility for all mitigation efforts;
- Evaluate the initial situation and assess the magnitude of the problem;
- Activate the initial response plan;
- Alert and assemble key personnel in the ERT, as deemed appropriate, to handle the situation;
- In consultation with Amaruq's Environment Coordinator or designate, develop the overall plan of action for containment and cleanup and direct and implement the plan;
- Ensure assigned responsibilities are carried out and the activities of team members are coordinated;
- Assess the requirements for people, equipment, materials, and tools to contain the spill in light of what resources are immediately available - urgency will depend on the nature of the spill; and
- In consultation with the Environment Coordinator or designate, mobilize any additional resources that may be required from Meadowbank or Baker Lake, and arrange for the transportation of necessary personnel and/or materials to the spill site.

Emergency Response Team

The Amaruq Exploration Site will have an Emergency Response Team (ERT) that will be trained and responsible for controlling the large spills. Depending on the location of the spill, the Meadowbnak Mine ERT will also be available to respond and assist in a large spill. For example, one or both teams will be called upon to respond to spills from tanker truck rollovers or other large spills along the Amaruq road located at the midsection near watercourses. These team members will attend regular training sessions in spill response.

Emergency Response Team Coordinator

The responsibilities of the Emergency Response Team Coordinator (ERTC) will be as follows:

- Mobilize all ERT personnel, equipment, Personal Protective Equipment (PPE) and supplies as required to the site of the spill;
- Assist the Incident Commander in obtaining any additional resources not available on-site;
- Ensure that appropriate PPE is worn and used properly;
- Assist in developing and implementing emergency response training programs and exercises; and
- Ensure that all spill response personnel receive adequate training to fulfil their responsibilities as part of the ERT.

Environment Coordinator

The Environment Coordinator or designate will be responsible for implementing and maintaining the SCP. In addition, the responsibilities of the Environment Coordinator or designate will be as follows:

- Liaise with the Incident Commander;
- Provide technical advice on the anticipated environmental impacts of the spill;
- Advise on the effectiveness of various containment, recoveries, and disposal options, and suggest the most appropriate approach;
- Prepare and submit any formal report (see Appendix A for NT/NU Spill Report Form) to regulators and Agnico Eagle management detailing the occurrence of a spill;
- Contact the Senior Vice-President - Environment and Sustainable Development immediately in the event of a major spill;
- Act as the spokesperson with regulatory and government agencies;
- If authorized by the Exploration Manager or delegate, act as a spokesperson with the public and media, as required;
- Implement a sampling protocol for the collection and analysis of samples to identify and monitor possible contaminant levels resulting from the spill;
- Ensure on-site resources for spill response and cleanup are available;
- Monitor the effectiveness of the cleanup operation and recommend further work, if necessary;
- Review incident occurrences and recommend preventative measures; and

- Assist in implementing training and simulation requirements for spill response personnel.

Exploration Manager

The Amaruq Exploration Manager or designate will be required to inform ERT members of the detailed nature of the operations to be performed in the event of large spill on the Amaruq road. The responsibilities of the Exploration Manager or designate will be as follows:

- Liaise with Agnico Eagle personnel resources and keep them informed of cleanup activities; and
- Assist the Incident Commander and ERT as needed, particularly in obtaining any additional personnel and resources not available on-site from Meadowbank for spill response and cleanup.

Health and Safety Superintendent

The following will be the responsibilities of the Health and Safety Superintendent or designate in conjunction with the Training Department:

- Maintain emergency and health and safety records;
- Assist in conducting emergency spill response exercises;
- Track all emergency and health and safety training that on-site staff have received, and when retraining is required;
- Notify the Incident Commander (related to ERT) when retraining is required;
- Ensure that employees are retrained in appropriate emergency response skills prior to expiry of existing training certification, e.g., Workplace Hazardous Materials Information System (WHMIS), Hazard Communication (HAZCOM), Occupational Health and Safety Administration (OHSA), first aid, respirator fit-testing; and
- Consult with appropriate organizations regarding retraining requirements and schedule.

On-Site Health Care Providers

On-site medics' responsibilities will be to:

- Provide on-site first aid and other medical support; and
- Provide additional training for ERT members.

In addition to the health care providers on-site, the Baker Lake health professionals will be called for assistance, if required. They may be the first to respond to incidences that could occur at Agnico Eagle's Baker Lake facilities.

Emergency Response Team Contact Information

Internal contact information is presented in Table 6-1 for all Agnico Eagle personnel involved in spill recovery and subsequent reporting. Table 6-2 provides contact information for Agnico Eagle

contractors present at the mine site. Important external contacts such as regulatory agencies and health organizations are listed in Table 6-3. Table 6-4 provides contact information for external contractors should incident warrant assistance from outside sources. These tables will be updated on a frequent basis.

Table 6-1 Internal Contacts

Title	Name	Telephone No.
Senior Vice-President, Environment and Sustainable Development	Louise Grondin	416 847-8656 Cell: 819 724-2020
Amaruq Exploration Camp Manager	To Be Determined (TBD)	
Health and Safety Superintendent or Assistant Superintendent	TBD	
Emergency Response Team	TBD	
Environment Coordinator or Environment Department	David Frenette	819.874.5980 x 3622
Incident Commander	TBD	
On-Site Medics	TBD	
Site Security	TBD	

Table 6-2 Contractor Contacts

Title	Telephone No.
Nolinor Aviation Services	Protocol Agent 867 793-4610 ext. 6808
First Air	867 446-1744
Calm Air	867 793-2873

Table 6-3 External Contacts

Organization/Authority	Telephone No.	Fax No.
NT-NU 24-Hour Spill Report Line	867 920-8130 spills@gov.nt.ca	867 873-6924
Workers Safety and Compensation Commission	867 979-8637	867 873-6924
Kivalliq Inuit Association (KIA)	867 645 5725	867 645 2348
Nunavut Water Board (NWB)	867 360-6338	867 360-6369
AANDC Inspector	867 975-4548	867 979-6445
Environment Canada, Enforcement Branch	867 975-4644	867 975-4594
Department of Fisheries and Ocean (DFO) – Nunavut Regional Office	867 979-8000	867 979-8039
Manager, Environmental Protection, Government of Nunavut	867 975-7748	867 975-5981
Kivalliq Health Services – Baker Lake (Health Centre after hours)	867 793 2816	
Baker Lake Hamlet Office (Senior Adm. Officer)	867 793 2874	
Baker Lake Fire Emergency	867 793 2900	
RCMP 24-Hour Emergency Number	867 793-1111	

Table 6-4 External Spill Response Contractor Contacts

Contractor	Telephone No.	Area of Expertise
Baker Lake Contracting & Supplies	867.793.2831	General Contracting and repairs
Peter's Expediting Limited	867 793 2703	Fuel Transportation
NWT Ltd (Arctic Fuel)	867.793.2311	Fuel Transportation

SECTION 7 • SPILL RESPONSE ACTION PLAN

Spills may be the result of any of the following occurrences:

- Tanks, drums or containers may develop leaks or rupture;
- Failure of equipment such as valves, piping or containment structures;
- Overfilling;
- Improper storage;
- Spills during transfer of fuel, chemicals or waste products; and
- Spills resulting from accidents during transportation.

As mentioned in the preceding section, the primary form of ensuring safety is by using preventative measures. All personnel who will have to deal with fuel and chemicals will have training in first aid and safe materials handling, including the Workplace Hazardous Materials Information System (WHMIS). In addition, regular training updates and site-specific exercises/drills will be integral to preventing incidents.

Procedures will vary depending on the season and hazardous materials spilled, as well as on location of the spill (on land, water, ice or snow). The MSDS will be consulted to ensure that safe procedures are followed. Response procedures specific to spills on land, water, snow and ice are presented in the following sub-sections as general guidelines.

Initial Action

For all spill emergencies, it is required that priority actions be undertaken. These are:

- Respond quickly;
- Respond safety; and
- Report the spill.

7.1.1 Respond Quickly

- Identify the spilled material;
- Be alert – ensure safety of yourself and others by notifying them of the incident;
- Shut off ignition sources such as vehicles and unplug electrical equipment – NO SMOKING nearby;
- Attend to the injured;
- Assess the severity of the spill; and
- Contact the Incident Commander, identify the location, and request assistance as required. The Incident Commander will mobilize the Emergency Response Team if necessary.

7.1.2 Respond Safely

- Consult the MSDS and Product Guides for further information on the substance;

- Keep people away from the spill site;
- Assess whether the spill, leak, or system failure can be readily stopped or brought under control;
- Stop product flow or leak if possible and IF IT IS SAFE TO DO SO;
- Approach spill from upwind IF IT IS SAFE TO DO SO;
- Do not contain compounds (e.g. gasoline, aviation fuel) if vapours might ignite – allow them to evaporate;
- Depending on the type of compound spilled and IF IT IS SAFE TO DO SO, contain product using booms, berms, absorbent pads, earthen dike, trenches or improvise with materials at hand; and
- Wear appropriate PPE such as impervious clothing, goggles, and gloves when containing the spill.

7.1.3 Report Spill

- Obtain all necessary information to complete the external spill report (see Appendix A). External reportable spills must be reported by Agnico Eagle Environment Staff to the NT-NU 24-Hour Spill Report Line, AANDC, KIA and NWB; and
- Submit a detailed spill report to the AANDC Water License Inspector and the KIA Land's Inspector no later than 30 days after the spill. Agnico Eagle's Environment Staff will prepare the report. This report shall contain the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain, cleanup and restore the spill site.

Spills on Land

Response to spills on land will include the general procedures detailed in the following section. The main spill control techniques involve the use of two types of barriers: dikes and trenches. Barriers should be placed down-gradient (down-slope) from the source of the spill, and as close as possible to the source of the spill. Barriers will slow the progression of the spilled material and will also serve as containment to allow recovery of the spilled material.

Depending on the volume spilled, the site of the spill and available material, a dike may be built with soil, booms, lumber, snow, etc. A plastic liner should be placed at the foot of and over the dikes to protect the underlying soil or other material and to facilitate recovery of the spilled material. Construct dikes in such a way as to accumulate a thick layer of free product in a single area (V-shaped or U-shaped).

Trenches are useful in the presence of permeable soil and when the spilled material is migrating below the ground surface. A plastic liner should be placed on the down-gradient edge of the trench to protect the underlying soil. Liners should not be placed at the bottom of the trench to allow water to continue flowing underneath the layer floating material (such as fuel).

The use of large quantities of absorbent materials to recover important volumes of spilled material should be avoided. Large volumes of free-product should be recovered, as much as possible, by using vacuums and pumps, and thereafter containerized. Mixtures of water and fuel may be processed through an oil-water separator. Absorbent sheets should be used to soak up residual fuel on water, on the ground (soil and rock), and on vegetation. Peat moss may also be sprinkled on vegetation to absorb films of petroleum products.

Spills on Water

Response to spills on water will include the general procedures provided in the following section. Various containment, diversion and recovery techniques are discussed. The following elements must be taken into consideration when conducting response operations:

- Type of waterbody or watercourse (lake, stream, river);
- The spilled material;
- Water depth and surface area;
- Wind speed and direction;
- Water flow and direction;
- Type of shoreline; and
- Seasonal considerations (open-water, freeze-up, break-up, frozen).

Containment of an oil slick in water will require the deployment of mobile floating booms to intercept, control, contain and concentrate (i.e., increase thickness) the floating oil. One end of the boom will be anchored to shore while a boat is used to pull the other end to encircle the oil slick and return it close to shore for recovery using a skimmer. Reducing the surface area of the slick will increase its thickness and thereby improve recovery. Mechanical recovery equipment (e.g., skimmers and oil/water separators) will be mobilized to site if required.

Measures will be taken to protect sensitive and accessible shoreline. The spill will be monitored to determine the direction of migration. In the absence of strong winds, the material will likely follow water flow direction. Measures will be taken to block and concentrate the spilled material at the discharge of a waterbody using booms where it will subsequently be recovered using a portable skimmer, a vacuum, or sorbent materials.

In small, slowly flowing rivers, streams, channels, inlets or ditches, inverted weirs (i.e., siphon dams) will be used to stop and concentrate moving material for collection while allowing water to continue to flow unimpeded. In the case of a spill in a stream heading for a culvert (i.e., at a road crossing), a culvert block will be used to stop and concentrate moving material for collection while allowing water to continue to flow unimpeded. In both cases, spilled material will then be recovered using a portable skimmer or sorbent materials.

In the case of spills in larger rivers, with fast moving currents, diversion booming will be used to direct the spilled material ashore for recovery. Single or multiple booms (i.e., cascading) may be

used for diversion. Typically, the booms are anchored across the river at an angle. The angle depends on the current velocity. Choosing a section of a river that is both wider and shallower makes boom deployment easier. Diversion booming may also be used to direct the spilled material away from a sensitive area to be protected.

Spills on Snow and Ice

In general, snow and ice will slow the movement of hydrocarbons or other spilled material. Snow is generally a good natural sorbent; hydrocarbons will have a tendency to be soaked up by snow through capillary action. However, the use of snow as a sorbent material will be limited as much as possible. Snow and frozen ground will also prevent spilled material from migrating down into soil or at least slow the migration process. Ice will prevent seepage of spilled material into the water. On the other hand, the presence of snow may hide the spilled material (especially oil slicks) and make it more difficult to follow its progression.

Most response procedures for spills on land may be used for spills on snow and ice. The use of dikes (i.e., compacted snow berms lined with plastic sheeting) or trenches (dug in ice) will slow the progression of the spilled material and will also serve as containment to allow recovery of the material. Free-product will be recovered by using a vacuum, a pump, or sorbent materials. Contaminated snow and ice will be scraped up manually or using heavy equipment depending on volumes. The contaminated snow and ice will be placed in containers or within plastic lined berms on land.

Disposal of Spilled Material

Contaminated materials will be salvaged, put into appropriate containers (e.g., Quatrex bags), and labelled for temporary storage. Contaminated water will be placed in drums or in roll off bins for shipment to Meadowbank or to an approved disposal facility. Depending on the nature of the contamination, solid materials will be either treated on-site (at the Meadowbank land farm), disposed on-site if possible, or eventually shipped off-site to an approved disposal facility.

Soils contaminated with light hydrocarbons (such as gasoline or aviation fuel) will be treated at the Meadowbank land farm.

Soils contaminated with other spilled products will be segregated, packaged and shipped to an external approved facility for proper treatment and disposal.

SECTION 8 • SPILL RESPONSE EQUIPMENT

This section addresses the emergency response machinery, equipment, tools and other resources that at a minimum will be made available at the Amaruq Exploration Site for use on the access road spill recovery measures (see Table 8-1).

Table 8-1 Mobile Equipment for Spill Emergency Response

Mobile Equipment	
Grader	Winch Trucks
Cranes	Pickup Trucks
Snowmobiles	Generator Sets
Vacuum Truck	Fire Truck
Loaders	Aluminium Boats
Backhoe	Fuel Trucks
Bulldozer	Bobcat
Forklift	50 tonne haul truck
Water Trucks	Snow Cat
Excavators	
Temporary Containment Systems	
Booms	Spill Absorbent Material
Drums	Packages/Pads
Tanks	Silt Fencing
Tailings Pond	Maritime Barrier
Emergency Transportation	
Aircraft (helicopter)	Snowmobiles
4-Wheel Drive Vehicles (Pickup Trucks, for example)	ATV
	Boats
Communication Equipment	
Radios	Fax
Telephone	Wireless Communication Systems

If required, additional equipment at the Meadowbank mine will be made available to assist with spill recovery. If required, external resources available in Baker Lake are listed in Table 6-2 and Table 6-4.

Communication equipment on site will include radios, telephones, faxes and other wireless communication systems that will be available in the event of an emergency situation.

The environmental coordinator for the Amaruq Exploration Site will be responsible for providing sufficient spill response kits for the access road operations. The kits will be kept in marked and accessible locations. The locations will notably include all fuel storage areas and chemical storage areas.

All mobile equipment at the Amaruq Exploration Site (heavy equipment) will also be equipped with an emergency spill kit.

A mobile environmental emergency trailer will be located at the Amaruq Exploration Site and a second one is presently located at the Meadowbank mine. Both will be easily accessible and transportable, and will contain the following items:

- Pump Elastec;
- Pump accessories;
- Vacuum ends;
- Tubing or pipes for vacuum or pumping;
- 45 gallons top;
- Diesel fuel jerry can (place on a miniberm);
- Spill kit accessory (red box);
- Drums opener;
- Wescot (to open empty drum screw);
- Empty drums;
- Drums berms;
- Tarps;
- White oil spill pads;
- Universal booms;
- Cell U-Sorb;
- Sphagsorb;
- Wedge wood;
- Plug pattie;
- Quattrex bags;
- Hand shovel;
- Ice breaker chisel;
- Sledge hammer; and
- Rod bars.

An environmental emergency seacan containing spill response and equipment will be located near the mid-point of the Amaruq road, close to all four water crossings having bridges. As listed above, the environmental emergency seacan will contain material similar to that in the mobile trailer.

SECTION 9 • TRAINING AND EMERGENCY SPILL EXERCISE

9.1 Training

9.1.1 On-Site Personnel

A designated Emergency Response Team (ERT) consisting of on-site personnel will be established at the Amaruq site. Agnico Eagle ensures that the ERT is trained and present at all times. All members of the team are trained and familiar with emergency and spill response resources, including their location and access, the Emergency Response and Spill Contingency Plan, and appropriate emergency spill response methodologies herein. The ERT at Meadowbank has approximately 40 members, each of whom trained 8 hours per month. The ERT team at Amaruq Exploration Site will have a similar structure as per the *Mine Act* requirements.

The training included the following:

- A review of the spill response plan and responsibilities of the ERT members;
- The nature, status, and location of fuel and chemical storage facilities;
- The on-site and off-site spill response equipment and how to use it;
- Distribution of MSDS sheets;
- Emergency contact lists;
- Worker health and safety during emergency interventions;
- Communication methods and signals;
- Desktop exercises of “worst case” scenarios;
- Emergency evacuation;
- Fires or explosions;
- Emergency equipment and use;
- Personal protective equipment and clothing; and
- The likely causes and possible effects of spills.

ERT members receive extensive HAZMAT (Hazardous Materials) training and learn how to respond while wearing PPE. Every employee at the Amaruq exploration site will receive spill and waste management training during their initial site orientation so that they are able to respond to small spills and raise the alarm if a larger response is required.

The Environment Department will regularly attend tool-box sessions to provide information on spill response and reporting procedures. Health and Safety Department, including the Baker Lake Health Center staff, will be have up-to-date MSDS sheets.

SECTION 10 • POTENTIAL SPILL ANALYSIS

In order to prepare for emergency spill response, potential spill analysis are conducted for a variety of potential worst case scenarios. The exercise serves in identifying potential risk areas, as well as in determining the fate of spilled products and their environmental effects. The following example is used to demonstrate the application of the spill response as part of the spill analysis. The example is of tanker truck spill along the Amaruq access road.

Description of incident: Roll-over of fuel tanker due to poor road conditions. The roll-over has resulted in approximately 1,000 L of fuel spilled on the ground at a location along the Amaruq access road.

Potential causes: Vehicle accident, human error.

Hazardous product(s) spilled: Diesel fuel.

Maximum potential volume spilled: 45,000 litres.

Immediate receiving medium: Land.

Distance and direction to nearest receiving body of water: N/A

Resources to protect: Land and any nearby stream, river or waterbody.

Estimated emergency response time: Maximum time is two hours depending on location of spill (assuming truck driver is injured and cannot commence spill response procedures). Minimum time to respond to a spill on the Amaruq road is 15 minutes, depending on the distance from the Amaruq site or the Meadowbank mine.

Spill response procedures: Under this scenario, the truck driver is not injured, and therefore he acted as the first responder and immediately activated the SCP as defined in Section 6. The driver attempted to seal the leak IF IT SAFE TO DO SO. He tried to use the spill kit carried in the fuel truck and made all attempts to contain and recover the fuel on the ground using dikes, sumps or trenches as described in Section 0. In this example, no streams or waterbodies were identified nearby. Therefore, the protection of waterbodies and shorelines using sorbent booms was not necessary. The first responder notified the Incident Commander and ERT, and Environment Department by calling a Code 1 on radio. The mobile emergency response trailer was brought to the spill site by the ERT, which has equipment for digging trenches to contain and collecting free-product for temporary storage. Spilled material was recovered using pumps. The Environment Coordinator immediately transmitted the information to the Exploration Manager. The fuel remaining in the tanker was pumped into a temporary storage tank using appropriate equipment. The leak stopped as the tank volume was reduced below the leaking safety valve. Pumping continued until all of the fuel was removed. The empty tanker was righted and brought back to the site. All soil was cleaned up,

transported in a sealed roll-off bin and disposed of in the Meadowbank land farm. The spill was reported to the NT/NU spill report line, KIA, NWB and AANDC.

APPENDIX A • NT/NU SPILL REPORT FORM

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER ____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME		
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS			

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

PAGE 1 OF _____

APPENDIX B • GENERAL RESPONSE PROCEDURES FOR SPILLED EXPLOSIVES

B.1 Ammonium Nitrate

The first step to prevent potential spills and associated hazards is the application of proper storage procedures for bulk ammonium nitrate, including the following:

- Ensure good housekeeping of the storage facility in order to prevent spilling and/or cross-contamination of materials;
- Store ammonium nitrate away from combustible materials, fuels, and other blasting accessories (i.e., boosters, delays, detonating cords and detonators);
- Post proper signage restricting the use/exposure of ammonium nitrate to ignition sources (e.g., no hot work, smoking or vehicle maintenance);
- Ensure the storage facility is well ventilated; and
- Ensure the storage facility is locked at all times with only authorized personnel allowed access.

The following is a general spill response procedure for ammonium nitrate. Consult the MSDS to determine whether deviations from the general guidance are required.

For an **ammonium nitrate spill** (solid):

1) Isolate and evacuate the spill area.

2) Contact your Supervisor who will then contact the Incident Commander and coordinate appropriate spill response (assemble ERT members and the appropriate spill response materials). **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

3) Put on appropriate personal protective equipment. For an ammonium nitrate spill, this includes:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Protective eyeglasses or chemical safety goggles or face shield as recommended by the MSDS;

c. Lab coat, coveralls or TyvekTM coveralls as recommended by the MSDS; and

d. Half mask air-purifying respirator with cartridges and/filters as recommended by the MSDS or respirator manufacturer.

4) Ventilate (open windows/doors to outdoor) closed spaces before entering.

5) Remove all sources of heat and ignition (no smoking, flares, sparks or flames in immediate area) and remove uncontaminated combustible materials and organic compounds (wood, paper, oil, etc.) from spill area.

6) For spills on land, protect the spill area from water runoff by constructing a ditch or dike using suitable absorbent materials, soil or other appropriate barrier.

7) Vacuum or sweep the spill residue using non-metal, non-sparking tools and place the residue in a labelled plastic container (plastic pail with lid or double heavy duty plastic bags) for re-use or off-site disposal at a licensed disposal facility.

> Note: Recovered solid, if generally free from impurities, may be suitable for its intended use. In this case, place solid in suitable container with lid and clearly label the container per WHMIS Guidelines.
>
> Note: Minimize dust generation during the operation.

8) Remove and bag PPE for cleaning or disposal at a licensed facility. Thoroughly wash potential skin contact locations after handling.

B.2 Ammonium Nitrate Fuel Oil (ANFO)

Proper storage, handling and disposal of ANFO is an important first step in preventing spills and associated hazards.

The proper storage procedures are as follows:

- Use ANFO under the supervision of authorized trained personnel;
- Keep ANFO away from heat, sparks, and flames, as well as initiating explosives, oxidizing agents, combustibles, and other sources of heat; and
- Protect containers from physical damage and store them in dry, well-ventilated conditions.

Explosives that have been identified as deteriorated or damaged will need to be disposed of or destroyed. The appropriate method of disposal or destruction and subsequent course of action will be determined by authorized personnel or the explosive supplier.

Transportation of explosives-related compounds and materials will be in accordance with Section 14 of the *Mine Health and Safety Act* and associated regulations, and the *Transportation of Dangerous Goods Act*. Transport vehicles will be in sound mechanical condition and equipped with proper safety equipment. Loaded vehicles will not be left unattended, and only authorized personnel will be responsible for the security of the explosives under their control.

The following is a general spill response procedure for ammonium nitrate fuel oil – ANFO. The following procedure does not apply to emulsions or other explosives. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For an **ANFO spill** (solid):

1) Isolate and evacuate the spill area.

2) **IF SAFE TO DO SO,** immediately extinguishes any open flames and remove ignition sources (no smoking, flares, sparks in immediate area). **Fires involving large quantities of ANFO should not be fought.**

3) Contact the Incident Commander who will assemble ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

4) Put on appropriate personal protective equipment. For an ANFO spill, this includes:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Protective eyeglasses or chemical safety goggles or face shield as recommended by the MSDS;

c. Lab coat, coveralls or TyvekTM coveralls as recommended by the MSDS;

d. Shoe covers or rubber boots; and

e. Half mask air-purifying respirator with cartridges and/filters as recommended by the MSDS or respirator manufacturer.

5) If the spill has occurred outdoors, stay upwind and avoid low-lying areas. Ventilate (open windows/doors to outdoors) closed spaces before entering. Ensure adequate explosion proof ventilation for cleanup.

6) Remove all sources of heat and ignition (no smoking, flares, sparks or flames in immediate area) and remove uncontaminated combustible materials and organic compounds (wood, paper, oil, etc.) from spill area.

7) Do not operate radio transmitters within 100 m of electric detonators.

8) For spill on land, protect the spill area from water runoff by constructing a ditch or dike using suitable absorbent materials, soil or other appropriate barrier. For spill to water, utilize damming, and/or water diversion to minimize the spread of contamination.

9) Collect, sweep or shovel spilled material and the other contaminated material/soil using non-metallic, spark-proof tools and place residue into a labelled plastic waste container (plastic pail with lid or double heavy-duty plastic bags) for off-site disposal at a licensed disposal facility.

Note: Recovered solid, if generally free from impurities, may be suitable for its intended use. In this case, place solid in suitable container with lid, and clearly label the container per WHMIS Guidelines.

Note: The drums/containers/residues are to be stored in ventilated areas away from incompatible materials for eventual off-site disposal at a licensed disposal facility.

10) Remove and bag PPE for cleaning or disposal at a licensed disposal facility. After handling, thoroughly wash potential skin contact locations with soap. Properly dispose of contaminated leather articles including shoes that cannot be decontaminated.

APPENDIX C • GENERAL RESPONSE PROCEDURES FOR COMPRESSED GAS LEAK

The following is a general spill response procedure for compressed gases. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **compressed (inert and flammable) gas** leak:

1) **IF SAFE TO DO SO** and if it will stop the gas leak, turn off cylinder valve.

2) If the leak cannot be stopped by closing the cylinder valve, and it is **an inert atmospheric gas** (e.g., nitrogen, carbon dioxide, etc.) isolate and evacuate the affected area. If the leak is a **flammable gas** and the leak is outside of a ventilated building enclosure that will contain the gas, immediately activate the fire alarm system and evacuate the area/building.

3) Contact the Incident Commander who will assemble ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

4) If possible and if safety permits, adjust leaking cylinder so that gas escapes rather than liquid.

5) If possible and if safety permits, eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area) and turn off electrical equipment.

6) If the spilled has occurred outdoors, stay upwind and avoid low lying areas. If the spill has occurred inside a building, prevent spread of vapour throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, it may also be necessary to have it shut-down. Allow vapours to ventilate outdoors by opening windows and doors to the exterior.

7) Isolate area until gas has dispersed. Incident Commander is to verify safe conditions.

APPENDIX D • GENERAL RESPONSE PROCEDURES FOR SPILLED FLAMMABLE OR COMBUSTABLE LIQUIDS

The following is a general spill response procedure for flammable or combustible liquids, particularly petroleum hydrocarbon products. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a spill of **flammable or combustible petroleum hydrocarbon product (liquid):**

1) Isolate and evacuate the spill area.

2) **IF SAFE TO DO SO**, immediately extinguishes any open flames and remove ignition sources (no smoking, flares, sparks in immediate area).

3) **IF SAFE TO DO SO**, stop leak and contain spill (**see Step 9**).

4) Contact the Incident Commander who will assemble ERT members if required and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

5) Put on appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Splash goggles or face shield;

c. Shoe covers or rubber boots;

d. Lab coat or TyvekTM coveralls; and

e. Half mask air-purifying respirator with **organic vapour or combination cartridges**, or as otherwise recommended by the MSDS or respirator manufacturer.

6) If the spilled has occurred outdoors, stay upwind and avoid low-lying areas. If the spill has occurred inside a building, prevent spread of vapour throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, it may also be necessary to have it shutdown.

7) Ventilate (open windows/doors to outdoors) closed spaces before entering. Ensure adequate explosion-proof ventilation for cleanup. A vapour suppressing foam or water spray may be used to reduce vapours.

8) Remove all sources of ignition (no smoking, flares, sparks or flames in immediate area) and combustible materials (wood, paper, oil, etc.) from within the spilled area.

9) Contain spill by using spill absorbent, spill pads or pillows, soil or snow by constructing a dike that will limit flow and prevent entry to sewer, waterways or onto ice. For spills to land, excavation of trenches/pits to capture spill flow may also be appropriate. If possible, compact soil or snow dikes, and place plastic tarps over the dike and at its foot to allow the product to pool on the plastic for easy recovery.

> Note: Do not use paper towels to absorb spill as this increases the rate of evaporation and vapour concentration in the air.
>
> Note: Do not flush with water into drainage areas or ditches, as this will spread spill.
>
> Note: Snow works well as a natural absorbent to collect and contain spilled petroleum hydrocarbons. However, its use in containing a spill will result in a water-contaminant mixture that may be more difficult to manage. It is important to scrape up the contaminated snow and ice as soon as possible.

10) Carefully cover the spill area with spill absorbent, spill pads, soil or snow, starting at the outside and working inward. Do not touch or walk through spilled material.

11) Sweep up or shovel the residue using non-metallic, spark-proof tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy-duty plastic bags). For larger spills to land, excavate impacted absorbent material and soil, place in lined and bermed temporary storage area or directly into sealed drums/containers.

> Note: The drums/containers/residues are to be stored in ventilated areas away from incompatible materials for eventual treatment on-site, at the Meadowbank land farm facility or off-site disposal at a licensed disposal facility. Electrically ground all containers and transporting equipment.
>
> Note: Larger pools of product may be pumped into empty storage tanks or drums.

12) If spill is indoors, mop the affected area using detergent and water. Dispose of this water to drums for eventual off-site disposal at a licensed disposal facility. Spills to land may require further excavation or remediation of contaminated soil until acceptable soil quality is achieved. The Incident Commander and/or Environment Superintendent will assess this requirement.

13) For spills to water, immediately limit the area of the spill on water using absorbent pads and booms and similar materials to capture small spills on water. Deploy and slowly draw in absorbent booms to encircle and absorb the spilled product. Recover larger spills on water with floating skimmers and pumps, as required, and discharge recovered product to drums or tanks.

> Note: Petroleum hydrocarbons are generally hydrophobic, and as such, do not readily dissolves in water. They typically tend to float on the water's surface. Absorbent booms are often relied on to recover hydrocarbons that escape land containment and enter water.
>
> Note: Antifreeze sinks and mixes with water. If released to water, attempt to isolate/confine the spill by damming or diverting the spill. Pump contaminated water to tanks or drums.

14) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated leather articles (including boots and shoes) that cannot be decontaminated.

APPENDIX E • GENERAL RESPONSE PROCEDURES FOR SPILLED OXIDIZING SUBSTANCES

E.1 Liquids

The following is a general spill response procedure for liquid oxidizer compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **liquid oxidizer** spill:

1) Isolate and evacuate the spill area.

2) **IF SAFE TO DO SO**, stop leak and contain spill (**see Step 8**).

3) Contact the Incident Commander who will assemble, if required, ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

4) Put on the appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Splash goggles or face shield;

c. Shoe covers or rubber boots;

d. Lab coat, coveralls or TyvekTM coveralls as recommended by the MSDS; and

e. Half mask air-purifying respirator with cartridges and/or filters as recommended by the MSDS or respirator manufacturer.

5) Ventilate closed spaces before entering. Ensure adequate explosion-proof ventilation for cleanup.

6) Remove and/or moisten with water any combustible material (wood, paper, oil, etc.) affected by the spill.

7) Use water spray to reduce vapours or divert vapour cloud drift, if required.

8) Contain spill by using non-combustible spill absorbent, soil or snow to construct a dike that limits flow and prevents entry to sewer, waterways or onto ice. For spills to land, excavation of trenches/pits to capture spill flow may also be appropriate.

Note: Flushing area with flooding quantities of water may also be appropriate assuming this does not make cleanup and waste management more difficult – refer to the MSDS.

9) Carefully cover the spill area with spill absorbent, soil or snow, starting at the outside and working inward. Use non-combustible absorbent. Do not touch or walk though spilled material.

10) Sweep up or shovel the spill residue using non-metal, non-sparking tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy duty plastic bags) for off-site disposal at a licensed disposal facility.

11) For indoor spills, mop the affected area using detergent and water. Flushing area with flooding quantities of water may also be appropriate – refer to the MSDS. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate. Spills to land may require further excavation or remediation of contaminated soil until acceptable soil quality is achieved. The Incident Commander and/or Environment Superintendent will assess this requirement.

12) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

E.2 Solids

The following is a general spill response procedure for solid oxidizer compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **solid oxidizer** spill:

1) Isolate and evacuate the spill area.

2) Contact the Incident Commander who will assemble, if required, ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

3) Put on the appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Safety glasses or goggles;

c. Lab coat; and

d. Half mask air-purifying respirator with **N95 or greater protection** particulate filter or as recommended by the MSDS or respirator manufacturer.

4) Remove all sources of heat and ignition (no smoking, flares, sparks or flames in immediate area) and remove uncontaminated combustible materials and organic compounds (wood, paper, oil, etc.) from spill area.

5) For spills to land, protect the spill area from water runoff by constructing a ditch or dike using suitable non-combustible absorbent materials, soil or other appropriate barrier. For spill to water, utilize damming and/or water diversion to minimize the spread of contamination.

6) Vacuum, sweep or shovel the spill residue using non-metal, non-sparking tools, and place the residue into a labelled plastic container (plastic pail with lid or double heavy duty plastic bags) for re-use or off-site disposal at a licensed disposal facility.

Note: Recovered solid, if generally free from impurities, may be suitable for its intended use. In this case, place solid in suitable container with lid, and clearly label the container per WHMIS Guidelines.

Note: Minimize dust generation.

7) If there is still oxidizer residue left in the spill area, neutralize with appropriate agent as recommended by the MSDS, or for spills to land, continue to excavate until no visible spilled solid

remains. Use non-combustible spill absorbent or soil to absorb the neutralized residue. Place in suitable drums/containers for disposal at a licensed facility.

8) For indoor spills, mop the affected area using detergent and water. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate.

9) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

APPENDIX F • GENERAL RESPONSE PROCEDURES FOR SPILLED CORROSIVE SUBSTANCES

G.1 Acids, Liquids

The following is a general spill response procedure for liquid acid compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **liquid acid** spill:

1) Isolate and evacuate the spill area.

2) **IF SAFE TO DO SO**, stop leak and contain spill (**see Step 8**).

3) Contact the Incident Commander who will assemble, if required, ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

4) Put on appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Splash goggles or face shield;

c. Shoe covers or rubber boots;

d. Lab coat or TyvekTM coveralls; and

e. Half mask air-purifying respirator with **acid gas or combination** cartridges, or as otherwise recommended by the MSDS or respirator manufacturer.

5) If the spill has occurred outdoors, stay upwind and stay out of low areas. If the spill has occurred inside a building, prevent spread of vapour throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, it may also be necessary to have it shut-down.

6) Ventilate (open windows/doors to outdoors) closed spaces before entering.

7) Remove all sources of ignition (no smoking, flares, sparks or flames in immediate area).

8) Contain spill by using spill absorbent, spill pads or pillows, or dry soil to construct a dike that limits flow and prevents entry to sewer, waterways or onto ice. For spills to land, excavation of trenches/pits to capture spill flow may also be appropriate. Ideally, use spill absorbent that contains a mild neutralizing agent as recommended by the MSDS.

Note: Many acids, particularly concentrated acids, react violently in the presence of water. Do not flush spill area with water unless the MSDS indicates acceptable.

Note: Nitric Acid reacts violently and explosively with organic chemicals and organic material such as wood, cotton and paper; therefore, do not use organic absorbent material on Nitric Acid.

Note: Hydrofluoric Acid will fume during neutralization. Provide adequate ventilation and approach from upwind. Neutralize carefully with Sodium Bicarbonate, soda ash or lime. Use water spray to disperse the gas/vapour if required. Remove all sources of ignition.

9) Carefully cover the spill area with spill absorbent, spill pads or dry soil, starting at the outside and working inward. If practical, neutralize spill using MSDS-recommended or commercially available neutralizers. Use pH indicator paper to determine if spill is neutralized (pH 7).

Note: Use caution as neutralization reactions generate heat.

10) Sweep or shovel the neutralized spill residue using non-metal, non-sparking tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy duty plastic bags) for off-site disposal at a licensed disposal facility.

11) Check the pH of the spill area. If it is less than pH 6, then further neutralize with a dilute solution of a suitable reagent as identified on the MSDS or for spill to land continue to excavate contaminated soil.

12) For indoor spills, mop the affected area using detergent and water. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate.

13) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

14) After the spill has been cleaned up, the area should be free of vapours. However, if personnel note odours or irritation, isolate the spill area, re-clean the area as per Steps 11 and 12 or wait at least 1 hour before re-entering or until considered safe by the Incident Commander or Environment Superintendent.

G.2 Acids, Solids

The following is a general spill response procedure for solid acid compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **solid acid** spill:

1) Isolate and evacuate the spill area.

2) Contact the Incident Commander who will assemble, if required, ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

3) Put on the appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Safety glasses or goggles;

c. Lab coat; and

d. Half mask air-purifying respirator with **N95 or greater protection** particulate filter, or as otherwise recommended by the MSDS or respirator manufacturer.

4) Contain spill to prevent release to sewer, waterway or onto ice. For spills to land, protect the spill area from water runoff by constructing a ditch or dike using absorbent materials, dry soil or other appropriate barrier. If raining, cover spill area with tarp or plastic to minimize contact with water and prevent reaction and/or subsequent runoff. For spill to water, utilize damming, and/or water diversion to minimize the spread of contamination.

5) If necessary to minimize dust production, slightly moisten the solid. Use water, or if the material is water reactive, another inert liquid as recommended by the MSDS.

6) Sweep up or shovel the residue using non-metallic, spark-proof tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy duty plastic bags) for reuse or off-site disposal at a licensed disposal facility.

Note: Recovered solid, if generally free from impurities, may be suitable for its intended use. In this case, place solid in suitable container with lid and clearly label the container per WHMIS Guidelines.

7) Remaining solid acid residue may be neutralized using a dilute solution of appropriate agent as recommended by the MSDS (e.g., Sodium Bicarbonate - baking soda) or, for spills to land, continue

to excavate until no visible spilled solid remains. Check the pH of the spill area; the final pH should be between pH 6 and 10. Use spill absorbent, spill pads or dry soil to absorb the neutralized residue.

Note: Use caution as neutralization reactions generate heat.

8) For indoor spills, mop the affected area using detergent and water. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate.

9) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

G.3 Bases/Alkali, Liquids

The following is a general spill response procedure for liquid alkali or base compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **liquid alkali or base** spill:

1) Isolate and evacuate the spill area.

2) **IF SAFE TO DO SO**, stop leak and contain spill (**see Step 8**).

3) Contact the Incident Commander who will assemble ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

4) Put on the appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Splash goggles or face shield;

c. Shoe covers or rubber boots;

d. Lab coat or TyvekTM coveralls; and

e. Half mask air-purifying respirator with cartridges/filters as recommended by the MSDS or respirator manufacturer.

5) If the spill has occurred outdoors, stay upwind and stay out of low areas. If the spill has occurred inside a building, prevent spread of vapour throughout the building by closing doors to other rooms and hallways. If the room's air exchange system distributes air throughout the building, it may also be necessary to have it shutdown.

6) Ventilate (open doors/windows to outdoors) closed spaces before entering.

7) Remove all sources of ignition (no smoking, flares, sparks or flames in immediate area) and combustible materials (wood, paper, oil, etc.).

8) Contain spill by using spill absorbent, spill pads or pillows, or dry soil to construct a dike that limits flow and prevents entry to sewer, waterways or onto ice. For spills to land, excavation of trenches/pits to capture spill flow may also be appropriate. Ideally, use spill absorbent that contains a mild neutralizing agent as recommended by MSDS.

Note: Use caution as neutralization reactions generate heat.

9) Carefully cover the spill area with spill absorbent, spill pads or dry soil, starting at the outside and working inward. If practical, neutralize spill using MSDS-recommended or commercially available neutralizers. Use pH indicator paper to determine if spill is neutralized (pH 7).

Note: Use caution as neutralization reactions generate heat.

10) Sweep or shovel the neutralized spill residue using non-metal, non-sparking tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy duty plastic bags) for off-site disposal at a licensed disposal facility.

11) Check the pH of the spill area. If it is greater than pH 10, then further neutralize with a dilute solution of a suitable reagent as identified on the MSDS, or for spill to land, continue to excavate contaminated soil.

12) For indoor spills, mop the affected area using detergent and water. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate.

13) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

14) After the spill has been cleaned up, the area should be free of vapours. However, if personnel note odours or irritation, isolate the spill area, re-clean as per Steps 11 and 12 or wait at least 1 hour before re-entering or until it is considered to be safe by the Incident Commander or Environment Superintendent.

G.4 Bases/Alkali, Solids

The following is a general spill response procedure for solid alkali or base compounds. Consult the MSDS for the specific spilled compound to determine whether deviations from the general guidance are required.

For a **solid alkali or base** spill:

1) Isolate and evacuate the spill area.

2) Contact the Incident Commander who will assemble, if required, ERT members and the appropriate spill response materials outside the spill area. **Obtain and read the MSDS** for the substance to determine the chemical-specific hazards and to identify any special precautions that must be taken.

3) Put on the appropriate PPE. Depending on the scale of the spill and properties of the spilled substance, this can include:

a. Gloves as recommended by the MSDS or glove manufacturer;

b. Safety glasses or goggles;

c. Lab coat; and

d. Half mask air-purifying respirator with **N95 or greater protection** particulate filter or as recommended by the MSDS or respirator manufacturer.

4) Contain spill to prevent release to sewer, waterway or onto ice. For spills to land, protect the spill area from water runoff by constructing a ditch or dike using absorbent materials, dry soil or other appropriate barrier. If raining, cover spill area with tarp or plastic to minimize contact with water and prevent reaction and/or subsequent runoff. For spill to water, utilize damming, and/or water diversion to minimize the spread of contamination.

5) If necessary to minimize dust production, slightly moisten the solid. Use water or, if the material is water reactive, another inert liquid as recommended by the MSDS.

Note: Do not use water to flush bases in powdered form, such as Calcium Oxide (lime), as this material is not very soluble.

6) Sweep or shovel the residue using non-metallic, spark-proof tools and place the residue into a labelled plastic waste container (plastic pail with lid or double heavy duty plastic bags) for off-site disposal at a licensed disposal facility.

Note: Recovered solid, if generally free from impurities, may be suitable for its intended use. In this case, place solid in suitable container with lid and clearly label the container per WHMIS Guidelines.

7) Remaining solid alkali or base residue may be neutralized using a dilute solution of appropriate acid. Check the pH of the spill area; the final pH should be between pH 6 and 10. Use spill absorbent, spill pads or dry soil to absorb the neutralized residue.

8) For indoor spills, mop the affected area using detergent and water. Dispose of this water to the sanitary sewer, process stream or waste drums as appropriate.

9) Remove and bag PPE for cleaning, inform laundry personnel of contaminant hazards, or dispose at a licensed disposal facility. Thoroughly wash with soap potential skin contact locations after handling. Properly dispose of contaminated clothing that cannot be decontaminated.

APPENDIX G • FEDERAL AND TERRITORIAL LAWS, REGULATIONS AND GUIDELINES

Act	Regulation	Guideline
Federal		
Arctic Waters Pollution Prevention Act (R.S.C., 1985, c. A-12)		
Canadian Environmental Protection Act (1999 c.33)	*Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* (SOR/2008-197)	CCME - Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products
	Environmental Emergency Regulations (SOR/2003-307)	Notice with respect to substances in the National Pollutant Release Inventory
	Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2002-301)	Canada-wide Standards for Petroleum Hydrocarbons (PHC) in Soil
Fisheries Act (1985, c. F-14)	*Metal Mining Effluent Regulations* SOR/2002-2222)	
Explosives Act (1985 c.E-17)	*Ammonium Nitrate and Fuel Oil Order* (C.R.C., c. 598)	
	Explosives Regulations (C.R.C., c. 599)	
National Fire Code of Canada (2010)		
Transport of Dangerous Goods Act (1992, c. 34)	*Transportation of Dangerous Goods Regulations* (SOR/2001-286)	
Territorial Lands Act (R.S. 1985, c. T-7)	*Northwest Territories and Nunavut Mining Regulations* (C.R.C., c. 1516)	
	Territorial Land Use Regulations (C.R.C., c. 1524)	
Nunavut Waters and Nunavut Surface Rights Tribunal Act (2002, c. 10)	*Northwest Territories Waters Regulations* (SOR/93/303)	
Nunavut Act (1993 c.28)		
Nu*navut Land Claims Agreement Act* (1993, c. 29)		

Act	Regulation	Guideline
Territorial		
Environmental Protection Act (RSNWT (Nu) 1988, c E-7)	*Spill Contingency Planning and Reporting Regulations* (NWT Reg (Nu) 068-93)	Guideline for the General Management of Hazardous Waste in Nunavut
		Guideline for Industrial Waste Discharges in Nunavut
		Guideline for the Management of Waste Antifreeze
		Guideline for the Management of Waste Batteries
		Guideline for the Management of Waste Paint
		Guideline for the Management of Waste Solvents
Territorial Parks Act (RSNTW (Nu) 1988, c T-4)	*Territorial Parks Regulations* (RRNWT (Nu) 1990 c T-13)	
Commissioner's Land Act (RSNWT 1988, c C-11)	*Commissioner's Airport Lands Regulations* (NWT Reg (Nu) 067-97)	
	Commissioner's Land Regulations (RRNWT 1990, c C-13)	
Mine Health And Safety Act (SNWT (Nu) 1994, c 25)	*Mine Health And Safety Regulations* (NWT Reg (Nu) 125-95)	
Workers' Compensation Act (RSNWT, 1988, c. W-6)	*Workers' Compensation General Regulations* (Nu Reg 017-2010)	
Explosives Use Act (RSNWT (Nu) 1988, c E-10)	*Explosives Regulations* (RRNWT (Nu) 1990 c E-27)	
Fire Prevention Act (RSNWT (Nu) 1988, c F-6)	*Fire Prevention Regulations* (RRNWT (Nu) 1990 c F-12)	
Motor Vehicles Act (RSNWT (Nu) 1988 c M-16)	*Large Vehicle Control Regulations* (RRNWT (Nu) 1990 c M-30)	
Public Health Act (RSNWT (Nu) 1988, c P-12)	*Camp Sanitation Regulations* (RRNWT (Nu) 1990 c P-12)	
	General Sanitation Regulations (RRNWT (Nu) 1990 c P-16)	
Safety Act (RSNWT 1988, c. S-1)	*General Safety Regulations*	

Act	Regulation	Guideline
	(RRNWT (Nu) 1990 c P-16)	
	Work Site Hazardous Materials Information System Regulations (RSNWT 1988, C 81 (Supp))	
Transportation Of Dangerous Goods Act (1990, RSNWT (Nu) 1988, c 81 (Supp))	*Transportation Of Dangerous Goods Regulations* (1991, NWT Reg (Nu) 095-91)	