# **APPENDIX A**

**AREVA Resources Canada Inc.** 

# SPILL CONTINGENCY PLAN KIGGAVIK SISSONS PROJECT

**NUNAVUT** 

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### **APPROVAL FOR USE**

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#### 1. INTRODUCTION

The AREVA Resources Canada Inc. (AREVA) Spill Contingency Plan shall be in effect from March 1, 2007 and it applies to the Kiggavik Sissons Project located about 80 km west of Baker Lake. This Plan shall be posted at operational remote camps and drill shacks. Any proposed changes and/or amendments will be submitted to the Nunavut Water Board (NWB), Indian Northern Affairs Canada (INAC), and the Kivalliq Inuit Association (KIA).

#### 1.1 AREVA's Exploration Department Environmental Policy

AREVA endeavours to take every reasonable precaution toward ensuring the protection and conservation of the natural environment and the safety and health of all employees and contractors from any potential harmful effects of stored materials and operations. This commitment is reflected in the Exploration Department Environmental Policy which outlines the following principles:

- Evaluate all environmental aspects of exploration activities, identify the significant ones and document procedures for minimizing as much as reasonably achievable the environmental impacts while carrying out these activities;
- Comply with all applicable environmental legislation and regulations and Exploration's Environmental Code of Practice;
- Communicate CRI Exploration's environmental requirements to employees and contractors to encourage their participation and compliance;
- Provide appropriate training, and conduct internal assessment and periodic review of procedures to ensure that exploration activities are operated in compliance with this policy;
- Develop appropriate objectives and targets against which performance is regularly measured:
- Deal pro actively with environmental issues by identifying potential impacts and implementing pollution preventive actions and/or developing effective contingency plans;
- Demonstrate continual improvement in environmental performance, be cognizant of advances in exploration technologies and the pertinent experiences of others; and
- Inform and consider the interests of the Stakeholders in exploration activities.

AREVA's *Exploration Department Environmental Code of Practice* provides a more specific and detailed procedures pertaining to spill response, and outlines responsibilities and expectations, which all field personnel are expected to follow. This document closely reflects the intent of this Code of Practice.

#### 2. PURPOSE OF THE SPILL CONTINGENCY PLAN

Spill is any accidental discharge of hazardous material to the environment. The purpose of this plan is to identify the potential for and the response method to spills for AREVA's exploration activities in Nunavut. The plan identifies how the environmental effects associated with these incidents can be prevented and/or mitigated through effective and efficient response. This plan also defines the responsibilities of key personnel.

#### 3. SITE INFORMATION

The existing Kiggavik camp will be refurbished to accommodate field personnel. Drilling program will be carried-out at both the Kiggavik and Sissons sites. These two sites are located about 17 km from each other. This spill contingency plan thus covers the fuel storage, transfer, and handling at the Kiggavik and Sissons sites.

#### 3.1 Petroleum and Chemical Product Storage and Inventory

There will be two main fuel caches for this project located at each of the sites, as indicated in Figures 4 and 5. Fuel cache locations are:

- Fuel cache at Kiggavik UTM Nad 83, Zone 14 97° 39' 28" W, 64° 26' 26" N
- Fuel cache at Sissons UTM Nad 83, Zone 14 97° 52' 44" W, 64° 19' 54" N

The fuel haul for the project will be delivered in winter via ground transport. This shipment is expected to include approximately: 300 drums of Jet-B, 365 drums of P-50, and 5 drums of unleaded gasoline, and 25 cylinders of propane. After spring thaw, additional fuel that may be required will be delivered by either a helicopter or a turbine otter from Baker Lake. The Jet-B, P-50, and unleaded gasoline are contained in 205 litre drums and propane in 45 kg cylinders. Each shipment will be inspected immediately upon delivery for leaks and integrity of the containers.

As noted in the AREVA's *Exploration Department Environmental Code of Practice*, fuel will be stored within a secondary containment (e.g., rubberized berm or other suitable construction) with sufficient capacity to handle 10% of the total fuel volume plus the size of the largest container. Lubricants and drill additives will also be stored within a secondary containment inside one of the buildings designated for storage. Absorbent matting and/or drip pans will be placed under all areas where fuel leaks are likely to occur (i.e. fuel line hose connections, fuelling stations, generators, water pump, parked heavy equipment), and these areas will be inspected on a daily basis. Waste oil, waste filters, and cleaned-up spill materials will be contained for removal from the site, for safe and appropriate disposal. Degreasing agents used for maintenance of equipment parts will be environmentally friendly and grease will be contained for removal from the site.

#### 3.2 Petroleum Product Transfer

Manual and automatic pumps (and aviation fuel filters for jet fuel) are used for the transfer of all petroleum products. Smoking, sparks, or open flames are **prohibited** in fuel storage and fuelling areas at all times.

#### 3.3 Location and Content of Spill Kits

Complete spill kits will be located at each of the fuel caches, at the drill shack, at the water pump, and at the camp. Spill kits will contain:

- 1 360 litre/79 gallon polyethylene over-pack drum
- 4 oil sorbent booms (5" X 10')

100 - oil sorbent sheets (16.5" X 20" X 3/8")

- 1 drain cover (36" X 36" X 1/16")
- 1 Caution tape (3" X 500')
- 1 1 lb plugging compound
- 2 pair Nitrile gloves
- 2 pair Safety goggles
- 2 pair Tyvek coveralls
- 1 instruction booklet
- 10 printed disposable bags (24" X 48")
- 1 shovel

In addition, at least one empty fuel drum and a pump will be located at each fuel cache in the event of damaged or leaking drums. Extra absorbent pads will be kept with the helicopter, drill and any area where re-fuelling, transferring and/or handling is done.

#### 4. RISK ASSESSMENT, MITIGATION AND PREVENTATIVE MEASURES

#### 4.1 Risk Assessment

The potential sources for spills have been identified as follows:

- 1) Storage of drummed products: leaks or ruptures may occur. This includes drums of Jet-B, P-50 diesel, gasoline, waste fuel, and waste oil.
- 2) Propane cylinders: propane leaks may occur at the valves. All cylinders are secured at all times.
- 3) Refuelling equipment such as: diamond drill equipment; helicopters; camp generator, stoves and incinerators; wheeled vehicles; snowmobiles, pumps. Incidents involving leaking or dripping fuels and oils may occur due to malfunctions, impact damage, lack of regular maintenance, improper storage, or faulty operation.

#### **4.2 Mitigation and Preventative Measures**

AREVA's Exploration Department Environmental Code of Practice discusses how to conduct activities so as to minimize the risk of spill. This discussion is provided in Section 3.1. In addition, the following measures will further minimize the potential for spills during fuel handling, transfer and storage:

- 1) Fuel transfer hoses with cam lock mechanisms to be used.
- 2) Carefully monitor fuel content in the receiving vessel during transfer. Always have additional absorbent pads on hand while transferring fuel.
- 3) Clean up drips and minor spills immediately.
- 4) Regularly inspect drums, tanks and hoses for leaks or potential to leak and for proper storage.
- 5) Create fuel caches in natural depressions that are located a <u>minimum</u> of 31 metres from the normal high-water mark of any water body.
- 6) Train personnel, especially those who will be operators, in proper fuel handling and spill response procedures. This training to include a "mock" spill, review of spill kit contents and their use and reporting.

#### 5. RESPONDING TO FAILURES AND SPILLS

The relevant procedures and responsibility in the event of a spill is outlined in AREVA's *Exploration Department Environmental Emergency Response Plan*.

#### **5.1 Spill Response Contact List**

The most recent "Emergency Contacts" list will be available in drill rigs and field offices. The contact list relevant to spill response for this project are listed below.

24 Hour Spill Line INAC Water Resources Inspector

(867) 920-8130 Iqaluit, Nunavut (867) 975-4298

Kivalliq Inuit Association Environment Canada Rankin Inlet, Nunavut Iqaluit, Nunavut

(867) 645-2800 (867) 975-4644

24 hour pager – (867) 920-5131

AREVA Resources Canada Inc.

P.O. Box 9204, 817 – 45<sup>th</sup> Street West

Saskatoon, SK S7K 3X5

Frederic Guerin - (306) 343-4631 Barry McCallum - (306) 343-4596

or 867-793-2000

Fax: (306) 343-4640

#### 5.2 Response to a Spill – Containment and Clean-Up

In the case of any spill or other environmental emergency, it is necessary to react in the most immediate, safe, and environmentally responsible manner. No spill or incident is so minor that it can be ignored. Appropriate spill response actions are summarized in Appendix III.

The basic steps of the response plan are as follows:

- Ensure the safety of all persons at all times.
- <u>Identify</u> and find the spill substance and its source.
  - 1. Eliminate all ignition sources and shut off machinery.
  - 2. If you can do it without placing yourself at risk, take actions to stop the spill at the source (i.e. shut off valves, reconnect hoses, etc.).
  - 3. Make sure you wear appropriate Personal Protection Equipment ("PPE") as necessary and available.
  - 4. Contain spill with appropriate material and equipment (i.e. spill response kit, etc.). Refer to the Material Safety Data Sheets ("MSDS") if this is a controlled

- substance. Pump large spills into barrels or other suitable container as available. Use absorbent matting on smaller spills.
- 5. If necessary, barricade the spill area (do not use flares unless you are certain the spilled material and its vapours are not flammable or explosive).
- 6. If you can do it without placing yourself at greater risk, keep spilled material out of waterways. Use shovels to dig trenches or make dirt and sand barriers.
- 7. Stay upwind and keep bystanders away.
- 8. Upon completion of clean-up, place contaminated absorbent and associated materials in barrels for removal from the site.
- 9. Get help refer to the "EMERGENCY CONTACTS" list.
- <u>Inform</u> the on-site coordinator or his/her designate at once, so that he/she may take the appropriate actions.
- <u>Implement</u> any necessary cleanup and/or remedial action.

#### 5.3 Response to a Spill – Reporting

- 1. <u>Immediately</u> notify and report to the 24-Hour Spill Line at (867) 920-8130, the DIAND Water Resources Inspector in Nunavut at (867) 975-4298, the Kivalliq Inuit Association in Nunavut at (867) 645-2800, and Environment Canada personnel at 867-975-4644.
- 2. <u>A Spill Report Form</u> (Appendix I) is filled out as completely as possible before or after contacting the 24 Hour Spill Line.
- 3. **Notify** Frederic Guerin, General Manager, Kiggavik Sissons Project, AREVA Resources Canada Inc. at (306) 343-4631.

#### 5.4 Other contacts for spill response/assistance and further reporting

Nunavut Water Board - (867) 360-6338 Fisheries and Oceans Canada, Habitat Impact Assessment Biologist – (867) 979-8007 Government of Nunavut Department of Environment - (867) 975-5910

#### 6. TRAINING AND PRACTICE DRILLS

All employees and contractors will be familiar with the spill response resources at hand, this Contingency Plan, MSDS sheets, and will also be trained for initial spill response methods. Involvement of other employees may be required, from time to time. Annual refreshers will be conducted to review the procedures within this plan. As well, at least one practice drill will be held per season to allow all field -personnel opportunity to practice emergency response skills.