CAMECO CORPORATION
HAZARDOUS MATERIAL SPILL CONTINGENCY PLAN
(HMSCP) (The Plan)

Turqavik - Aberdeen Project
Aberdeen Lake Area, Nunavut

Date of Issue: 28 February 2006
Prepared by: Arnold Moen Nijssen / Peter Zeljeznak

Record of Revisions

Rev. No.	Date	Section	Description of Revision	Prepared/Revised by
0	28 February 2006	All	Initial issue	Arnold Moen Nijssen / Peter Zeljeznak
1	18 January 2007	1.0, 4.0 5.0, 6.0, 8.0	To incorporate drilling and winter activity	Peter Zeljeznak
2	03 April 2007	4.1	Add Environment Canada contact	Garth Drever
3	27 April 2007	2.0	Global manager change	Peter Zeljeznak
4	16 January 2008	1.0; 2.0; 4.0	Exploration program and management changes	Rebecca Hunter
5	22 May 2008	4.1; 7.0 (new)	Phone number changes, and added overland transport precautions	Rebecca Hunter
6	17 March 2009	9.0, 4.0	Phone numbers changed, drilling additives and lubricants added to hazardous materials list.	Joel Lesperance
7	19 January	1.0, 4.1, 6.0	Modified introduction, telephone roster, removed ATV section.	Rebecca Hunter
8	28 January	9.0, 9.1	Added coolant and Boart drill additives to MSDS list. Added quantity of fuel stored for 2010.	Joel Lesperance, Rebecca Hunter
9	May 19, 2010	4.0, 4.1	Added Reportable Spill Quantities table, changed contact phone numbers. Added a copy of the NT-NU Spill Report Form as Appendix 2. Modified Camp Detail Map.	Ekaterina Savinova
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1.0 INTRODUCTION

The purpose of this plan is to outline procedures in the event of a spill of any hazardous material(s) occurring in the exercise of mineral exploration activities by Cameco Corporation for an area northwest of Baker Lake, Nunavut. Cameco Corporation has exploration rights to a number of claims in the Aberdeen Lake area. The activities will be concentrated at a campsite on the southwest shore of Qamanaarjuk Lake at approximately 64° 37' 43" N and 97°59' 40" W. Activities in support of exploration conducted at the drill sites will also be covered by this plan. Figures 1outlines the location of the Turqavik and Aberdeen project in Nunavut and Figure 2 is a detailed map showing the claims. Figure 3 is a map of the exploration campsite on Qamanaarjuk Lake. Figure 4 and 5 are maps of the drilling areas planned for 2010.

During the 2010 spring operations, our contractor(s) will transport a diamond drill, rods, fuel, materials and other supplies overland using low-ground pressure vehicles (tracked LMC 5700 ski hill groomers) and sleds pulled by these. Diamond drills will be heli-lifted from drill site to drill site, eliminating the need for additional mobilization equipment. All efforts will be made to minimize impact on the environment and will be exercised at all times during the exploration program.

Most of the supplies and personnel will be shuttled to camp from Baker Lake with fixed- or rotary-wing aircraft. One of the primary selection criteria for the campsite was for it to have an adjacent natural or close-to-natural airstrip capable of use by large-tired single or twin-engine aircraft (such as the deHavilland Otter and Twin Otter), this situation will facilitate any emergency response supply. The largest quantities of hazardous materials involved in the proposed operation will constitute liquid fuel, it is planned to reduce the potential size of any spill of these products by re-supplying on a regular basis and keeping the size of the stockpile as low as practical (typically a one-week supply).

The existing exploration camp on the southwest shore of Qamanaarjuk Lake will be utilized and personnel will be airlifted by helicopter to and from the drill site. A portable insulated shelter will be on site at the drill throughout the drill program.

1.1 Policy Statement

Consistent with our vision, values and measures of success, Cameco recognizes safety and health of its workers and the public, protection of the environment, and quality of our processes as the highest corporate priorities during all stages of our

activities, which include exploration, development, operations, decommissioning and reclamation. As such, we are striving to be a leading performer through a strong safety culture and our commitment to the following principles:

- Keeping health hazards, including radiation exposures, and environmental risks, at levels as low as reasonably achievable;
- Preventing pollution;
- Complying with and moving beyond legal requirements;
- Ensuring quality of processes, products and services; and
- Continually improving our overall performance.

2.0 RESPONSE ORGANIZATION AND RESPONSIBILITIES

Cameco Corporation, Exploration Division

Vice-President, Exploration – Colin MacDonald

- makes or delegates any Public News Release regarding a reportable spill
- notifies or delegates notification of next of kin of any Cameco Corporation casualty

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Director, Worldwide Exploration Projects – Roger Lemaitre

- advises Cameco Corporation Vice President, Exploration of any reportable spill

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Regional Director, Exploration, Americas - Charles Roy

- advises Cameco Corporation Director, Worldwide Exploration Projects of any reportable spill

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District Geologist, Exploration, Nunavut & N.W.T. - Gerard Zaluski

- maintains communications with Cameco Corporation Regional Director, Exploration, Americas of any reportable spill

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Project Geologist, Exploration, Nunavut & N.W.T. - Rebecca Hunter

- advises Cameco Corporation District Geologist, Exploration, Nunavut & N.W.T. of any reportable spill

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Technician (Camp Manager) – Arnold Moen Nijssen (On-site Co-ordinator)

- initiates the Plan to any reportable spill
- leads the on-site effort to stop, contain and clean up the spill
- leads the investigation into the cause(s) of the spill
- cooperates with and reports to the appropriate government regulatory agency as required
- determines, in consultation with supervisors, whether to request external assistance

in dealing with any spill

On-site authority will only pass to another party upon instruction from the On-site Co-ordinator's supervisor(s) and/or authorized personnel of an applicable government agency (for example: Environmental Protection Division, Department of Renewable Resources, Government of Nunavut; Land Use Directorate, Indian and Northern Affairs Canada; Royal Canadian Mounted Police)

The On-site Co-ordinator will consult with anyone deemed of potential assistance in remedying the situation concerning a spill of any Hazardous Material; in particular regulatory and technical personnel in the Safety, Health and Environment Division of Cameco Corporation, any applicable government personnel, air charter or contract personnel (pilots and operations managers).

This plan will be/has been vetted by qualified technical personnel within the Safety, Health and Environment Division of Cameco Corporation and they will provide the technical expertise with respect to decisions made in the execution of the Plan in response to any spill of Hazardous Material(s).

3.0 INITIAL ACTION

Spill is noticed or identified.
[All camp personnel will be oriented to watch for, report, and stand-by to assist as instructed with any remedial action to a spill of hazardous material(s)].

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Report of spill to the Camp Manager or Designated Alternate (on-site).
[Camp Manager quickly assesses the situation, assumes the role of on-site Co-ordinator, and implements the HMSCP if appropriate].

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Camp Manager or Geologist-in-charge notifies Nunavut 24-Hour Spill Report Line **867.920.8130** & Cameco Corporation Management.

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In any response to a spill of hazardous material(s) the on-site Co-ordinator will be primarily concerned to protect any person(s) from injury or harm. For example, a spill of gasoline in close proximity to a source of ignition should be dealt with by removing the possibility of ignition before attempting to arrest the spill of gasoline.

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Locate the source and mechanism of the spill and attempt to stop the spill.

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Choose the appropriate absorbent and /or neutralizer for the spilled hazardous material(s), deploy these to begin the clean-up.

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Attempt to stop the spread of the spill by using the spill response materials together with building dikes or berms with available equipment.

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Collect the used absorbent and/or neutralizer in suitable containers for proper disposal.

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The On-site Co-ordinator will be responsible for recording all relevant information for reporting purposes.

4.0 SPILL REPORTING AND ALERTING

Communications from the site of any spill will be made via mobile satellite telephone; a stationary satellite telephone as well as a fully redundant high frequency single-side band radio will be situated at the camp. Hand-held very high frequency radios will be employed for communication between the spill site and the camp when practical. For any reportable spill, when the Plan is initiated, the satellite telephone in camp will be staffed by a person(s) delegated by the On-site Co-ordinator on a continual basis to ensure that communications with remotely located personnel is always possible. As soon as, and if, practical, one person at the spill site will be equipped with a mobile satellite telephone (this will be unnecessary if the spill site is at or close to camp).

All spills of oil, fuel or other deleterious material, regardless of size, will be reported by the Geologist-in-Charge or the Camp Manager to the NWT-NU 24-hour Spill Line (867.920.8130) as well as to the Land Use Inspection Officer responsible for administering the permit for the Cameco Corporation land use operation. Cameco Corporation management will be notified immediately upon initiation of the Plan. Table of reportable spill quantities is attached.

Reportable Quantities

TDG Class	Substance	Reportable Quantities for NWT/NU 24-Hour Spill Reports
1.0 2.3 2.4 6.2 7.0 None	Explosives Compressed gas (toxic) Compressed gas (corrosive) Infectious substances Radioactive materials Unknown substance	Any amount
2.1 2.2	Compressed gas (flammable) Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
3.1 3.2 3.3	Flammable liquids	> 100 L
4.1 4.2 4.3	Flammable solids Spontaneously combustible solids Water reactant	> 25 kg
5.1 9.1	Oxidizing substances Miscellaneous products or substances excluding PCB mixtures	> 50 L or 50 kg
5.2 9.0	Organic peroxides Environmentally hazardous	> 1 L or 1 kg
6.1 8.0 9.3	Poisonous substances Corrosive substances Dangerous wastes	> 5 L or 5 kg
9.1	PCB mixtures of 5 or more ppm	> 0.5 L or 0.5 kg
None	Other contaminants (e.g., crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, waste water, etc.)	> 100 L or 100 kg
None	Sour natural gas (i.e., contains H_2S) Sweet Natural gas	Uncontrolled release or sustained flow of 10 minutes or more
Report releases/potential releases of any size that: **are near or into an open water body;** **are near or into a designated sensitive environment or sensitive habitat;** **pose an imminent threat to human health or safety; or** **pose an imminent threat to a listed species at risk or its critical habitat.**		

Note: L = litre; kg = kilogram; PCB = polychlorinated biphenyls; ppm = parts per million.

In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

4.1 Telephone Roster

Organization	Personnel	Telephone Number
Cameco Corporation	Colin MacDonald, Vice-President Exploration	306.956.6341
	Roger Lemaitre, Director, Worldwide Exploration Projects	306.956.6708
	Charles Roy, Regional Director, Exploration, Americas	306.956.6358
	Gerard Zaluski, District Geologist, Nunavut & N.W.T.	306.956.6359
	Rebecca Hunter, Geologist, Nunavut & N.W.T.	306.956-6279
	Arnold Moen Nijssen, Camp Manager, Nunavut & N.W.T.	306.956.6397 (Office) 011-8816-316-29369 (Iridium, dial 011 from land line)
Nunavut 24-Hour Spill Report Line		**867.920.8130**
Indian and Northern Affairs Canada	Spencer Dewar, Land Administrator	867.975.4283
	John Craig, Assistant Land Administrator	867.975.4285
	Environment Manager	867.975.4549
	Field Operations Manager	867.645.2831
	Water Resources Manager	867.975.4550
	Henry Kablalik, Resource Management Officer	867.645.2831
	Manager of Field Operations (in event of spill)	867-975-4295
Environment Canada	Iqaluit Duty Officer	867.975.4644
	Robert Eno (Waste Manifest registration)	867.975.7748
RCMP Baker Lake		867.793.0123
Kivalliq Inuit Association		867.645.2800
Government of Nunavut	Department of Environment	867.975.7700
	Manager of Pollution Control	867.975.7748
Nunavut Water Board		867.630.6338
Ookpik Aviation, SK Construction	Boris Kotelewetz	867.793.2234
	(Alternate contact) Baker Lake Lodge	867.793.2905
Boart Longyear Drilling Services	Ross Reid	306.931.1150
Forest Helicopters	Bart Stevenson	888.764.4001

5.0 SPILL ACTION PLANS

5.1 Spill of Fuel From Steel Drums on Tundra

5.1.1 Preventative Measures

Steel drums will be stored in such a manner that they will not be susceptible to tipping over, rolling or otherwise being unstable. Care will be exercised

so that nothing can cause damage to steel fuel drums by falling or rolling onto or into them. When unloading steel fuel drums from aircrafts, the use of a ramp or a cushion (automotive tire) will ensure that they are not damaged.

5.1.2 Remedial Measures

Puncture or rupture of 206-litres steel drums containing liquid fuels will initially be assessed for risk of ignition. Sources of ignition will be extinguished or isolated from the spill if safe to do so. Efforts will be made to plug punctures with appropriate material from the spill kit (expandable neoprene plugs or wedges and shims). Ruptures will be high-centered to stop further spill of fuel. Absorbent material will be placed on spilled fuel and into appropriate containers (plastic or metal cans or pails in good condition) as it becomes saturated with fuel. A containment berm will be built from soil and/or tarps to contain a large spill. Fuel skimmed or wicked off of the surface to be disposed of, most probably by incineration. High-centered ruptures will be used as a point of entry for manually-operated fuel transfer pump suction tubes, and remaining fuel will be removed to a sound drum. Contaminated soil, vegetation or gravel will be removed into buckets with lids for proper disposal upon instruction of the regulatory agency

5.2 Leak Of Liquid Fuel From Reservoir And Distribution Lines

5.2.1 Preventative Measures

Stability of all reservoir and distribution assemblies is of utmost importance to ensure that the risk of damage is minimized. All stands for reservoirs will be constructed to strength standards beyond those required. Distribution lines from reservoirs to appliances will be fitted with an appropriate shut-off valve immediately downstream from the reservoir. The line will be installed in such a way to prevent being chafed in the wind, chewed on by animals or tripped on by humans. This will be done by securing it to rigid structures, encasing it in armor or any other effective manner. These measures apply broadly to heating oil, gasoline and propane set-ups.

5.2.2 Remedial Measures

A detected leak from a fuel reservoir and distribution line assembly will initially be assessed for risk of ignition. Sources of ignition will be extinguished or isolated from the leak if safe to do so. Shut-off valve immediately downstream from reservoir will be turned off. Absorbent material will be placed on the spilled fuel; if spilled onto snow or ice this will be scooped up with a shovel and stored in an appropriate container. Spilled fuel collected will be disposed of by incineration. The site of the leak will be searched for and repaired if and when found, if the site of the

leak is not found the entire assembly may be replaced paying special attention to quality of materials, equipment and techniques of installation employed.

5.3 Spill Of Liquid Fuel Into Lake Water

5.3.1 Preventative Measures

Liquid fuel in steel drums will be stored well back from the lakeshore on durable ground.

5.3.2 Remedial Measures

Confinement and collection of liquid fuel in lake water will be attempted with floating booms of petroleum absorbent material. For larger spills, liquid will be removed by skimming. Spilled fuel collected will be disposed of by incineration. Contaminated water and/or absorbent material will be removed into buckets with lids for proper disposal upon instruction of the regulatory agency

5.4 Spill of Liquid Fuel On Ice or Snow

5.4.1 Preventative Measures

Steel drums will be monitored on a regular basis for any signs of leaks or spills.

5.4.2 Remedial Measures

A containment berm of snow will be constructed around the spill. Any liquid will be removed by skimming or collected with absorbent material. Spilled fuel collected will be disposed of by incineration. Contaminated snow and/or ice will be removed into buckets with lids for proper disposal upon instruction of the regulatory agency.

5.5 Release of Propane

5.5.1 Preventative Measures

Propane will be stored in appropriate, certified containers. Propane containers will be inspected and monitored on a regular basis for any signs of deterioration or corrosion. Containers will be secured and fastened in an upright position to ensure there is no risk of damage to the regulator in the event of a fall.

5.5.2 Remedial Measures

No attempt should be made to contain a propane release. Water spray can be used to reduce the risk of ignition. Personnel should withdraw from the area immediately until the all vapors have diffused. We will contact the proper agency for disposal instructions of a defective container.

5.6 Spill Of Battery Acid

5.5.1 Preventative Measures

Acquisition of non-spillable Optima batteries will reduce the risk of a spill of this type. Optima batteries can be shipped by air, they are exempt from UN2800 classification. All batteries will be protected from damage by fastening them into the space designed for them when used with various power equipment and stored safely when not in use.

5.5.2 Remedial Measures

In case of a spill of battery acid the first concern will be for the safety of any person(s) at risk of harm. Sources of ignition to the potentially explosive gas will be extinguished or isolated if safe to do so. Personal protective equipment, eye and hand wear at a minimum, will be donned and a neutralizer (sodium bicarbonate) will be bermed around the spill site. If safe to do so the entire battery may be placed into a non-corrodible container. The neutralizer may then be worked into the entire area of the spill until no more obvious reaction is noticed. Used neutralizer will be placed in suitable containers for appropriate disposal.

6.0 SPILL RESPONSE EQUIPMENT AND SUPPLIES INVENTORY

6.1 Absorbent Material and Overpack Containers

The base of the spill response will be two 206-litres heavy duty polyethylene overpack containers which are available commercially pre-packed with an assortment of petroleum absorbent materials. A separate chest of additional absorbent materials and empty labeled chests to contain the materials from the overpacks should they be used will make up the petroleum absorbent component of the spill response equipment.

6.2 Fuel Transfer Pumps

Dedicated manual fuel transfer pumps for each type of liquid fuel will be stationed in close proximity to each site where that fuel is stored.

6.3 Fire Extinguishers

Fire extinguishers of the proper type, size and number will be stationed in each building and near each site where equipment is normally serviced (including fuelling) and anywhere else it is deemed advisable.

6.4 Acid Neutralizer

Twenty kilograms of sodium bicarbonate will be divided proportionally and stored in labeled covered polyethylene pails near each of the batteries on site.

6.5 Hand Tools

A full complement of shovels, scoops, and grub hoes or pulaskis will be stationed around camp (typically one shovel and/or scoop at each door to a building); a dedicated set of these tools will be stationed with the chest of absorbent materials at the powerhouse/workshop.

6.6 Containers For Storage Of Spilled And Contaminated Materials

A supply of 20-litre polyethylene pails and heavy polyethylene sample bags will be reserved for the collection and storage of used absorbent materials and acid neutralizer.

6.7 Snowmobile(s) And Sleigh(s)

At least one snowmobile and sleigh will be situated in camp during winter for general purposes and will be dedicated to assisting in any spill response as deemed suitable.

7.0 OVERLAND TRANSPORT PRECAUTIONS

The following are precautions when transporting materials overland:

- Speed on winter roads should not exceed 30 km/h for fully loaded vehicles and 50 km/h for empty vehicles.
- Trucks should carry at least 10 square metres of polyethylene material (for lining a trench or depression), a spark proof shovel and oil absorbent blankets and squares.
- Trucks should carry reliable radio and/or satellite communication.
- Trucks should carry sufficient response equipment for the safe removal of fuel from an overturned truck (such as hatch cone covers, hoses etc.)
- Spills will be reported as quickly as they can and that time will depend on the extent of the spill and the remoteness of the situation.

8.0 ORIENTATION

All personnel at camp (Cameco Corporation employees, contractors, and visitors) will be presented with a copy of this plan when they first arrive at the camp. The plan will be reviewed during their orientation to camp by the Camp Manager, including the location of Material Safety Data Sheets (on a labeled wall rack in the office), the location of spill kits and additional supplies and tools. Training for spill contingency will consist of alerting all personnel to be watchful for any leaks or spills and where these are most likely, instruction in the use of the equipment and materials, introduction to the protocol of the chain of command and the legal requirement to report certain spills as well as how to collect, store and dispose of spilled product.

9.0 LIST OF HAZARDOUS MATERIALS
(Material Safety Data Sheets)

The following products will be the most significant (quantity and reactivity) hazardous materials at the Cameco Corporation operation. The list is subject to change and revisions of this plan will reflect these changes. All Material Safety Data Sheets will be stored and available to all personnel via postings in our office at camp. A digital copy of all the Material Safety Data Sheets will be stored on our internal network in camp. Appendix 1 contains all the 2010 Material Safety Data Sheets and can be provided digitally if requested.

9.1 Common Liquid Fuels

Common liquid fuels used in operations.

Propane - Dimethylmethane fuel used for cooking and heating hot water, stored in 100-pound steel cylinders. We have approximately 20 cylinders in camp currently.

Regular Unleaded Gasoline - Automotive fuel for use in pumps and ATV's, stored in 206-litre steel drums. We have 1 partially filled drum of gasoline on site.

Jet A-1 Aviation Fuel - Aviation turbine fuel (Kerosene Type) for use in helicopter and coil heaters (used in coil heaters when contaminated), stored in 206-litre steel drums. We will have 50 or so drums in camp, and the remaining ~400 drums will be stored in berms at our fuel caches south of camp. See Figure 4 for location.

Arctic P-50 Low Sulphur Diesel - Automotive fuel used in generator and coil heaters at drill, stored in 206-litres steel drums. Approximately 70 drums will be stored in camp for the generator, and the remaining 300 drums will be stored in berms at our fuel caches south of camp. See Figure 4 for location.

9.2 Lubricants

Various engine and mechanical lubricants on site (camp):

Mobile Jet Oil II- Aviation Turbine Lubricant/Oil.

Aeroshell Grease 22- Aviation lubricating grease.

Aeroshell Grease 7- Aircraft lubricating grease.

10W 30 Engine Oil- Used for generator engine.

9.3 Battery Electrolyte: Sulphuric Acid In Battery Cells

Battery electrolyte: sulphuric acid in battery cells.

9.4 Coolants

Antifreeze - Ethelene Glycol antifreeze for use as engine coolant.

9.5 Drilling additives

Core Tech Diamond Drilling Additives (from previous contractor still on site)

Extreme Number One Granular Drilling Mud Polymer - High grade, Anionic, Acrylamide Copolymer in the form of a free flowing coarse white powder.

Extreme Super G - Environmentally friendly biodegradeable polymer in powder form for use with drilling fluid.

Extreme Stop - Specially developed extremely absorbent stable polymer powder.

Extreme Linseed Lube - Linseed soap used in drilling operations to reduce cutting compaction.

Extreme Super-G Gold - Environmentally friendly, biodegradable liquid drilling fluid polymer, used in replacement of bentonite.

Extreme Rod Grease: High Tack Diamond Drill Rod Grease - Hydro treated neutral base oil used for drilling operations.

Extreme Torq-EEZ: Liquid Drill Rod Lubricant – Stable, pressure reducing non-flammable lubricant in liquid form used for reducing drill rod friction on borehole wall.

Boart Longyear Diamond Drilling Additives (majority stored at Kiggavik – Areva's camp)

550X Polymer – Drilling mud additive, anionic water soluble polymer.

PD650 – Drilling mud additive, anionic water soluble polymer.

Linseed Soap – Drilling lubricant.

Lubtub – Drilling fluid additive, polymer salt.

Calcium Chloride - Used to prevent freezing of drill hole while drilling in permafrost conditions.