

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

Nueltin Lake Project, Nunavut

* Please refer to the requested additional MSDS information at the end of the document.

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	2.0; 4.0	Management changes	Rebecca Hunter
5	18 January 2008	1.0, 2.0, 3.0, 4.1, 6.0, 8.3	Modified to Nueltin Lake project	Gerard Zaluski
6	30 May 2008	4.0, 4.1, 5.1.1, Additional Attachments	Modified to Board Specifications, Nueltin Project	Kristl Hoksbergen
7				
8				
9				
10				

TABLE OF CONTENTS

	<u>Page #</u>
1.0 Introduction	5
1.1 Policy Statement	5
2.0 Response Organization and Responsibilities.....	5
3.0 Initial Action.....	7
4.0 Spill Reporting and Alerting.....	8
4.1 Telephone Roster	9
5.0 Spill Action Plans	9
5.1 Spill Of Fuel From Steel Drums on Tundra	9
5.1.1 Preventative Measures	9
5.1.2 Remedial Measures.....	10
5.2 Leak Of Liquid Fuel From Reservoir And Distribution Lines	10
5.2.1 Preventative Measures	10
5.2.2 Remedial Measures.....	10
5.3 Spill Of Liquid Fuel Into Lake Water	11
5.3.1 Preventative Measures	11
5.3.2 Remedial Measures.....	11
5.4 Spill of Liquid Fuel On Ice or Snow	11
5.4.1 Preventative Measures	11
5.4.2 Remedial Measures.....	11
5.5 Release of Propane	11
5.5.1 Preventative Measures	11
5.5.2 Remedial Measures.....	12
5.6 Spill Of Battery Acid	12
5.5.1 Preventative Measures	12
5.5.2 Remedial Measures.....	12
6.0 Spill Response Equipment and Supplies Inventory	12
6.1 Absorbent Material and Overpack Containers	12
6.2 Fuel Transfer Pumps.....	13
6.3 Fire Extinguishers.....	13
6.4 Acid Neutralizer	13
6.5 Hand Tools	13
6.6 Containers For Storage Of Spilled And Contaminated Materials	13
7.0 Orientation	13
8.0 List of Hazardous Materials	14
8.1 Common Liquid Fuels	14
8.2 Battery Electrolyte: Sulphuric Acid In Battery Cells	14
8.3 Drilling additives	14

Figures

- Figure 1. Regional Project Location Map
Figure 2. Proposed Drill Sites
Figure 3. Proposed Drill Hole Locations on Mineral Lease F56800

Attached for Reference at the End of This Document

- Required MSDS Sheets for possible dangerous substances used during drilling
- Sample of NU/NWT Spill Hotline Report Form
- Sample of Waste Manifest

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 on the western side of Nueltin Lake in southern Nunavut. Cameco Corporation has exploration rights to a number of claims, and a mineral lease in the Nueltin Lake area, these are shown on the attached map (Figure 1). The area is situated between 60° 2' and 60° 13'N and 99° 51' and 100° 11'W. Project personnel and contractors will be staying at the Nueltin Lake Lodge – Treeline Lodge in northwestern Manitoba (59° 44'N, 100° 5'W), therefore there will be no camp in Nunavut. The activities covered by this plan will include diamond drilling and activities in support of that, mapping/prospecting (walking) traverses, and transportation to, from, and on the property.

The diamond drill, crews, and equipment will be heli-lifted from drill site to drill site, eliminating the need for ground mobilization equipment. All efforts will be made to minimize impact on the environment and will be exercised at all times during the drilling program and prospecting program.

The largest quantities of hazardous materials involved in the proposed operation will constitute liquid fuel, the bulk of which will be stored at Treeline Lodge (MB)., To reduce the potential size of any spill of these products only small caches of diesel (drill) and Jet A (helicopter) fuel will be kept on the property and resupplied as needed.

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

(In the event that this spill occurs after hours the Cameco Security Line will be contacted to allow the reporter to contact another Cameco Office Representative, and will proceed up the chain as listed below)

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



Director, Worldwide Exploration Projects – Roger Lemaitre

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



Regional Director, Exploration, Americas - Charles Roy

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



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

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



Geologist, Exploration, Nunavut & N.W.T. - Kristl Hoksbergen (Project Leader)

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



Geologist and/or Technician (to be assigned)

- 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)].



Report of spill to the geologist or technician designated (on-site).

[Geologist/technician quickly assesses the situation, assumes the role of on-site Co-ordinator, and implements the HMSCP if appropriate].



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



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.



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



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



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



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



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).

Any reportable spill of Hazardous Material(s) will be reported by the Geologist-in-Charge to the 24-hour Report 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.

As recommended by the Department of Environment the movement of hazardous wastes, from generators, carriers to receivers of the wastes will be monitored through the use of a tracking document known as a Waste Manifest. This Waste Manifest will accompany all movements, and all parties will register with DOE by contacting Robert Eno at (867)975-7748 or reno@gov.nu.ca.

4.1 Telephone Roster

Organization	Personnel	Telephone Number	
Cameco Corporation	Colin MacDonald, Vice-President Exploration	Office Representative	306.956.6341
	Roger Lemaitre, Director, Worldwide Exploration Projects	Office Representative	306.956.6708
	Charles Roy, Regional Director, Exploration, Americas	Office Representative	306.956.6358
	Gerard Zaluski, District Geologist, Nunavut & N.W.T.	Representative in Field	306.956.6359
	Kristl Hoksbergen, Geologist, Nunavut & N.W.T.	Representative in Field	306.956-6427
24 Hour Cameco Security Contact	Cameco 24 Hour Security Line	24 Hour Number	306-956-6204
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
Environment Canada	Jimmy Noble, Enforcement Officer		867.975.4644
RCMP Arviat			867.857-0123
DOE General Reception	General Number		1-867-975-7700
DOE Direct	Manager of Pollution Control		1-867-975-7748
Government of Nunavut	Department of Environment		867.975.5900
	Manager Pollution Control and Air Quality		867.975.5907
Nunavut Water Board			867.630.6338
Nueltin Lake Lodge	Gary Gurke		1-800-361-7177 cell 204-856-3848
Diamond Drill Contractor	Foraco Drilling Company		1-250-374-3366
Helicopter Contractor	Remote Helicopters		1-780-849-2222

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. To prevent spreading in the event of a spill, fuel stored in drums will be located, whenever practical, in a natural depression a minimum distance of 90 feet from all streams, preferably in an area of low permeability.

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.

7.0 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 Project Leader or Geologist in Charge, 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.

8.0 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 for the first season; this list is subject to change and revisions of this plan will reflect these changes.

8.1 Common Liquid Fuels

Common liquid fuels:

- : Diesel fuel (stove oil, heating oil, P50), in 206-litres steel drums
- : Helicopter turbine engine fuel (Jet A), in 206-litre steel drums
- : Regular unleaded gasoline, in 206-litre steel drums
- : Propane, in 100-pound steel cylinders

8.2 Battery Electrolyte: Sulphuric Acid In Battery Cells

Battery electrolyte: sulphuric acid in battery cells

Material Safety Data Sheets will be stored and available to all personnel at a white-labeled red wall rack in office at camp. Most MSDS are available on the Internet and therefore easily accessible even in the field.

8.3 Drilling additives

Drilling additives will be non-toxic, NSF approved materials. At time of issue, the exact compound is not known; a generic additive is included in the Materials Safety Data Sheet and the Hazardous Materials Spill Contingency Plan will be updated when additive is determined.