CAMECO CORP
Form 6-K
March 27, 2007

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16 Under
the Securities Exchange Act of 1934
For the month of March, 2007

Cameco Corporation
(Commission file No. 1-14228)
2121-11th Street West
Saskatoon, Saskatchewan, Canada S7M 1J3
(Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F o Form 40-F þ

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes o No þ

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):

Exhibit Index

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 27, 2007

Cameco Corporation

By: *Gary M.S. Chad*
Gary M.S. Chad, Q.C.
Senior Vice-President, Governance,
Legal and Regulatory Affairs, and
Corporate Secretary

FORM 51-102F3
MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

Cameco Corporation (Cameco)
2121 11th Street West, Saskatoon, Saskatchewan S7M 1J3

Item 2 Date of Material Change

March 18, 2007

Item 3 News Release

The English versions and the French translation version of the news release relating to this material change were distributed and filed by Canadian Corporate News through their Canadian Timely Disclosure Pack and U.S. Timely Disclosure Pack on March 18, 2007.

Item 4 Summary of Material Change

On March 18, 2007, Cameco provided an update on the Cigar Lake uranium project that included the following highlights:

Production startup is targeted for 2010, subject to regulatory approval and timely remediation.

Cameco s share of capital costs, including mill modifications, to bring Cigar Lake into production is estimated at $508 million including $234 million spent on construction to date, leaving $274 million remaining.

Cameco s share of flood remediation costs is estimated at $46 million and will be expensed in the year they occur. Cameco spent and expensed $5 million of this total in 2006. These remediation expenses are in addition to the capital costs mentioned above.

Cameco s share of estimated proven mineral reserves remains unchanged at 113 million pounds U_3O_8.

Cameco plans to freeze more underground areas such as the access tunnels to the production level and increase dewatering capacity.

Cigar Lake remains a financially attractive project even with the increased capital costs.

Cameco expects Cigar Lake to be a low-cost uranium producer.

This information should be read in the context of the risk factors outlined in the full description of the material change. Cameco owns 50% of the Cigar Lake joint venture. All figures included in this material change report are in Canadian dollars unless otherwise noted.

Item 5 Full Description of Material Change

On March 18, 2007, Cameco provided an update on the Cigar Lake uranium project that included the following highlights:

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Cigar Lake remains a financially attractive project even with the increased capital costs.

Cameco expects Cigar Lake to be a low-cost uranium producer.

This information should be read in the context of the risk factors outlined later in this material change report. Cameco owns 50% of the Cigar Lake joint venture. All figures included in this material change report are in Canadian dollars unless otherwise noted.

While this extraordinary deposit presents its challenges, Cameco expects that Cigar Lake will be developed and will enable Cameco to significantly increase its uranium production for many years to come.

As previously announced, Cameco is completing a technical report for Cigar Lake that meets requirements under Canadian Securities Administrators National Instrument 43-101 *Standards of Technical Disclosure for Mineral Projects* (NI 43-101). In the course of preparing that report, the company finalized material information that is contained within this material change report. More detailed information will be available in the technical report that will be filed on SEDAR before the end of March 2007 and posted on Cameco s website cameco.com after it is filed.

Subject to joint venture partner approval, Cameco is proceeding with a five-phase plan to restore the underground workings at Cigar Lake and complete construction. Each phase requires regulatory approval which has already been received for the work under way in phase one, other than drilling dewatering holes.

Cameco s share of additional capital costs to develop Cigar Lake, including mill modifications at Rabbit Lake and McClean Lake (where the uranium will be processed), is currently estimated at $274 million. Adding this new cost estimate to the $234 million that Cameco has already spent on Cigar Lake construction brings Cameco s share of total construction costs to develop the project to about $508 million or about $4.50 per pound of proven reserves. The increase from the last estimate of $330 million, provided on April 30, 2006, is primarily due to site costs during the extended construction period, higher contractor rates driven by the high level of construction activity in western Canada, increased energy costs and several scope additions. Two significant scope additions are increased dewatering capacity and optimized mine plans to freeze more underground areas such as the access tunnels to the production level. In addition to the $234 million of historic construction costs noted above, Cameco s investment in Cigar Lake as of December 31, 2006 included $378 million for expenditures related to test mining, infrastructure development and capitalized interest (or an additional $3.35 per pound of proven reserves).

In addition to capital costs, Cameco s share of remediation expenses are expected to total $46 million, of which $5 million was expensed in 2006. In 2007, Cameco anticipates its share of remediation costs will be $32 million that will be expensed and reduce pre-tax earnings accordingly. In 2008, Cameco expects its pre-tax earnings to be reduced by $9 million of remediation expenses for Cigar Lake. Following dewatering, Cameco expects to have more information about the condition of the underground infrastructure that may impact costs and timelines of remediation.

Forecast Cigar Lake Costs (Cameco s share[1])

Capital costs ($ millions)	**Prior construction costs**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
Mine	203	68	99	71			441
Mills	31	6	5	9	5	11	67
Total	**234**	**74**	**104**	**80**	**5**	**11**	**508**

Remediation expenses[1] ($ millions)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
	5	32	9				**46**

[1] Future costs are in constant 2007 dollars.

Cameco is making good progress on the first phase of remediation. The first phase involves drilling holes down to the source of the inflow and to a nearby tunnel where reinforcement may be needed, pumping concrete through the drill holes, sealing off the inflow with grout and drilling dewatering holes.

As of March 18, 2007, 13 of the 14 drill holes planned for reinforcing and sealing off the water inflow area are complete. (See the diagram posted with the news release dated March 18, 2007 announcing this material change at cameco.com.) Concrete is required in two locations underground one near the rockfall to seal off the inflow area and another in a nearby tunnel to provide reinforcement. More than 1,000 cubic metres of concrete have been poured through drill holes into the reinforcement area. The concrete mixture is designed to harden under water and is being poured in successive layers.

Cameco now expects to complete the work necessary to seal off the water inflow in the third quarter of 2007 after spending additional time learning the best way to work with concrete in the water underground. This timeline assumes that the current pace of drilling is maintained, and the concrete solidifies as planned to provide reinforcement and prevent or reduce water inflow sufficiently to enable mine dewatering. The integrity of the concrete plug will not be known until dewatering is under way.

Cameco has applied to the regulators for approval to drill an additional four, larger-diameter, holes that would be used to dewater the mine. Cameco has secured access to all drilling equipment required for the remediation work. Cameco will also be making the appropriate application for relicensing since the current Cigar Lake construction licence expires at the end of 2007.

The subsequent four phases of remediation and construction are:

Phase 2 Dewatering the underground development, verifying the water inflow has been sufficiently sealed, and initiating the installation of surface freezing infrastructure expected to be completed by the end of the third quarter 2007.

Phase 3 Completing any additional remedial work identified in phase two such as determining if additional reinforcement is required in higher risk areas expected by the end of 2007.

Phase 4 Completing underground rehabilitation that includes securing areas to prevent ground fall or water inflow, re-establishing mine ventilation, installing pumping capacity and re-establishing the ore freezing program expected to be completed by the summer of 2008.

Phase 5 Resuming construction activities that will lead to scheduled completion of the mine targeted for 2010.

While these phases are under way, the area around the flooded second shaft will be frozen after the installation of underground freeze pipes from a nearby tunnel. This is anticipated to be completed by the summer of 2008. Shaft sinking will continue with completion scheduled for 2010.

Cameco has hired internationally qualified independent experts to investigate the two water inflow incidents at the Cigar Lake project and provide corrective action recommendations. The company will be carefully reviewing the final reports to identify opportunities for improvement.

After construction is complete, Cameco estimates production startup in 2010, ramping up to the company s share of full production of about 9 million pounds of U_3O_8 annually, in just over two years. This is subject to regulatory approval and the remediation being completed in a timely fashion.

Following a review of the reserves and resources at Cigar Lake, Cameco s share of proven reserves remains unchanged at 113.2 million pounds. However, a small amount (Cameco s share is 2.6 million pounds) of probable reserves have been reclassified as indicated resources due to a change in the cut-off grade to 5.9% U_3O_8. Additional work is required on the inferred resources set forth in the table below to determine if they can be reclassified to a higher category.

Cigar Lake Reserves and Resources at March 16 , 2007

Category	Tonnes (thousands)	Grade % U_3O_8	Total Lbs U_3O_8 (millions)	Cameco s Share Lbs U_3O_8 (millions)
Reserves				
Proven reserves	497	20.7	226.3	113.2
Resources				
Indicated resources	61	4.9	6.6	3.3
Inferred	317	16.9	118.2	59.1

Notes:

(a) Cameco reports reserves and resources separately. The

amount of reported resources does not include those amounts identified as reserves.

(b) Cameco s share is 50.025% of total.

(c) Total pounds U_3O_8 for reserves are contained pounds before mill recovery of 98.5 % has been applied.

(d) Inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher category.

(e) Mineral reserves have been estimated at a minimum mineralized thickness of 2.5m and a cut-off grade of 5.9 % U_3O_8 applied to the mineral resource block model. Indicated mineral resources have been estimated at a cut-off grade of 1.2 % U_3O_8 and minimum mineralized thickness interval of 2.5m. Inferred mineral resources have been estimated at a cut-off grade of 5.9 % U_3O_8.

(f) The geological model employed for Cigar Lake involves geological interpretations on section and plan derived from core drill hole information.

(g) Mineral reserves have been estimated assuming an allowance of 0.5 m of dilution above and below the deposit, plus 5% external dilution and 5% backfill dilution at 0% U_3O_8.

(h) Mineral reserves have been estimated based on 90% mining recovery. No allowance for mining recovery is included in mineral resources.

(i) Mineral reserves and mineral resources were estimated based on the use of the jet boring mining method combined with block freezing of the orebody.

(j) Mineral reserves and resources were estimated using a

2-dimensional block model.

(k) For the purpose of estimating mineral reserves in accordance with NI 43-101, a uranium price of $38.50 (US)/lb U_3O_8 was used. For the purpose of estimating mineral reserves in accordance with US Securities Commission Industry Guide 7, a uranium price of $32.30 (US)/lb U_3O_8 was used. Estimated mineral reserves are almost identical at either price because of the insensitivity of the mineral reserves to the cut-off grade over the range of these two prices.

(l) The key economic parameters underlying the mineral reserves include a conversion from US dollars to Canadian dollars using a fixed exchange rate of $0.91 US=$1.00 Cdn.

(m) Environmental, permitting, legal, title, taxation, socio-economic, political, marketing or other issues are not expected to materially affect the above estimate of mineral reserves and resources.

(n) Mineral resources that are not mineral reserves do not have demonstrated economic viability.

At a mill recovery rate of 98.5%, Cameco anticipates that its share of proven reserves will produce 111.5 million recoverable pounds of U_3O_8 over 14.8 years of production. The first five years of planned production are as follows:

Cameco s share of Cigar Lake production	**2010**	**2011**	**2012**	**2013**	**2014**
(million pounds U_3O_8)	1.5	4.5	8.8	9.0	9.0

Cigar Lake will produce less than Cameco s share of full production of 9 million pounds of U_3O_8 in the early and late years resulting in an average total recovery of 7.5 million pounds of U_3O_8 annually over the mineral reserve life.

The Cigar Lake project is a joint venture owned by Cameco Corporation (50%), AREVA Resources Canada Inc. (37%), Idemitsu Canada Resources Ltd. (8%) and TEPCO Resources Inc. (5%). The project is located in northern Saskatchewan.

Risk Factors

Cigar Lake is a challenging deposit to develop and mine. These challenges include control of groundwater, weak ground formations, and radiation protection. The sandstone overlying the basement rocks contains significant water at hydrostatic pressure. Freezing the ground is expected to result in several enhancements to the ground conditions, including: (1) minimizing the risk of water inflows from saturated rock above the unconformity; (2) reducing radiation exposure from radon dissolved in the ground water; and (3) increasing rock stability. However, freezing will only reduce, not eliminate, these challenges. There is also the possibility of a water

inflow during the drilling of holes to freeze the ground. Therefore, the risk of water inflows at Cigar Lake remains. The consequences of another water inflow will depend upon the magnitude, location and timing of any such event, but could include a significant delay in Cigar Lake s remediation, development or production, a material increase in costs, a loss of mineral reserves or require Cameco to give notice to many of its customers that it is declaring an interruption in planned uranium supply. Such consequences could have a material adverse impact on Cameco. Water inflows are generally not insurable.

Cigar Lake s remediation and production schedules are based upon certain assumptions regarding the condition of the underground infrastructure at the mine. The condition of this underground infrastructure, however, will not be known until the mine is dewatered. If the underground infrastructure has been impaired, this could adversely impact Cameco s schedules and cost estimates.

The outcome of each phase of remediation will impact the schedule of each subsequent phase of remediation and the planned commencement of production in 2010. For example, if the plug is not successful in securing the inflow area, then ground freezing, already incorporated in the remediation plan, will be utilized to secure the inflow area. If this situation occurs, there could be a delay in the remediation schedule and the commencement of production.

Remediation and production schedules will be impacted by regulatory approvals. Cameco has not yet received regulatory approval to drill four drill holes for dewatering the mine during the first phase of the remediation plan. This approval is required to move forward with Cameco s planned dewatering strategy. Working with the regulatory authorities to receive approvals for additional corrective actions which may result from current inflow investigations may impact Cameco s remediation and production schedules.

Readers are cautioned that conclusions, projections and estimates set out in this material change report are subject to the qualifications, assumptions and exclusions which are detailed in the technical report. To fully understand the summary information set out above, the technical report that will be filed on SEDAR should be read in its entirety.

Qualified Persons

The scientific and technical information in this material change report was prepared under the supervision of:

Alain G. Mainville, a professional geoscientist employed by Cameco as director, mineral resources management.

Barry W. Schmitke, a professional engineer employed by Cameco as the general manager of the Cigar Lake project.

The individuals noted above are qualified persons for the purpose of National Instrument 43-101.

Forward-looking Statement

Statements contained in this material change report, which are not historical facts, are forward-looking statements that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause such differences, without limiting the generality of the following, include: volatility and sensitivity to market prices for uranium; the impact of change in foreign currency exchange rates and interest rates; imprecision in capital cost, operating cost, production and tax estimates; environmental and safety risks including increased regulatory

burdens; failure to obtain or maintain necessary permits and approvals from government authorities; changes in government regulations and policies; unexpected geological or hydrological conditions; natural phenomena including inclement weather conditions, fire, flood, underground floods, earthquakes and cave-ins; adverse mining conditions; ability to maintain and further improve positive labour relations; strikes or lockouts; operating performance; disruption in the operation of, and life of the company s and third party s milling facilities; and other development and operating risks.

Although Cameco believes that the assumptions inherent in the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this report. Cameco disclaims any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Cautionary Note to US Investors Concerning Estimates of Measured, Indicated and Inferred Resources

This material change report uses the terms indicated resources and inferred resources. United States investors are advised that, while such terms are recognized and required by Canadian securities laws, the United States Securities and Exchange Commission (SEC) does not recognize them. Under United States standards, mineralization may not be classified as a reserve unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Mineral resources that are not mineral reserves do not have demonstrated economic viability. United States investors are cautioned not to assume that all or any part of indicated resources will ever be converted into reserves. Inferred resources are in addition to indicated resources. Further, inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or any part of an inferred resource will ever be upgraded to a higher category. Therefore, United States investors are also cautioned not to assume that all or any part of Cigar Lake s inferred resources exist, or that they can be mined legally or economically. Information concerning descriptions of mineralization, reserves and resources contained in this material change report may not be comparable to information made public by United States companies subject to the reporting and disclosure requirements of the SEC.

NI 43-101 is a rule developed by the Canadian Securities Administrators, which established standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all reserve and resource estimates referred to in this material change report have been prepared in accordance with NI 43-101 and the CIM Standards. The requirements of NI 43-101 are not the same as those of the SEC and any reserves reported by the company in compliance with NI 43-101 may not qualify as reserves under the SEC s standards.

Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102.

Not applicable.

Item 7 Omitted Information

Not applicable.

Item 8 Executive Officer

Gary M.S. Chad
Senior Vice-President, Governance, Legal and Regulatory Affairs, and
Corporate Secretary
Cameco Corporation
(306) 956-6303

Item 9 Date of Report

March 27, 2007