

CAMECO CORP  
Form 6-K  
September 06, 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 September, 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

Form 40-F

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

No

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

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**Exhibit Index**

Exhibit No.	Description	Page No.
1.	Press Release dated September 6, 2007	3-7

**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: September 6, 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

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**TSX:** CCO  
**NYSE:** CCJ

**website:** [cameco.com](http://cameco.com)  
**currency:** Cdn

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**Cameco To Invest in Share Repurchase Program**

Saskatoon, Saskatchewan, Canada, September 6, 2007. . . . .

**Cameco Corporation** announced today it intends to proceed with a significant program to repurchase up to 5% of the company's common shares, representing an investment of about \$750 million at the current share price.

Cameco's strong financial position provides us with the opportunity to invest further in the nuclear industry, said Jerry Grandey, Cameco's president and CEO. We are committed to strengthening our core asset base for the long term. And, in the near term, as attractive assets have not been available at reasonable valuations, the best investment today is repurchasing our own shares.

The company has filed a notice of intention to make a normal course issuer bid with the Toronto Stock Exchange. Under the bid, which is subject to acceptance by the Toronto Stock Exchange, Cameco will have the ability to purchase for cancellation up to approximately 17.7 million of its common shares, representing 5% of the approximately 353.9 million issued and outstanding common shares as of September 5, 2007.

This is an excellent opportunity to increase shareholder value, Grandey said. We intend to acquire the maximum number of shares allowed.

Cameco may begin purchasing shares on or about September 11, 2007 and continue until September 10, 2008 unless the company purchases the maximum allowable number of common shares sooner or terminates the program. Cameco will make only open-market purchases of its common shares and will pay the market price of the shares at the time of purchase.

Cameco expects to use predominantly cash on hand and cash from operations to fund the share repurchase program. This is the second time that Cameco has initiated a share repurchase program since it became a public company in 1991.

Cameco's shares closed at \$42.51 on September 5, 2007 and have traded in a range of \$35.35 to \$59.90 over the past year on the Toronto Stock Exchange.

**Company Updates**

In the context of announcing a share repurchase program, we are providing an update on the company's activities.

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***Cigar Lake***

The following information provides an update on major activities at Cigar Lake since the second quarter report. Cameco continues to make progress on its remediation plan, following the flooding of the underground development at Cigar Lake last year. The initial remediation activities included drilling holes to the source of the inflow and to a nearby tunnel, pumping concrete through the drill holes, sealing off the inflow with grout and drilling dewatering holes. Regulatory approval is required for each phase of the remediation plan.

All of the holes for pouring concrete and dewatering are now complete as well as reinforcement of the adjacent tunnel. Pouring of the concrete plug in the tunnel at the vicinity of the inflow began at the end of July and is nearly complete. Pouring cement and injecting grout into the rock fall pile and up into the location of the water inflow source has commenced and at this point it is expected to take another six to 10 weeks to complete. The effectiveness of the plug will need to be assessed and will not be known until dewatering is underway.

Cameco is also drilling a number of new diamond drill holes to assess the pore water pressure and rock quality and structure to determine if depressurization, reinforcement or other precautionary measures may be necessary in two other areas of the mine prior to dewatering. We expect this assessment to be complete by year end.

The next steps of the remediation will include dewatering the mine, verifying that the inflow is sufficiently sealed, and installing the contingency surface freezing pipes, if required. Subsequent remediation activities will include restoring underground areas and resumption of mine development and may include ground freezing in the area of the inflow. Following regulatory approval, dewatering pumps and infrastructure are now installed and electrical work is underway.

A revised production forecast will be provided after the decision is made on the timing of the second shaft completion, the mine has been dewatered and the condition of the underground development has been assessed. As previously announced, completing the second shaft as a priority item and the delay in some remediation activities would set back the planned production startup date from 2010 to 2011.

This update on Cigar Lake will replace the scheduled update for September 19 unless there are material developments to report. The next update will be available with the third quarter report.

The scientific and technical information related to Cigar Lake in this news release was prepared under the supervision of C. Scott Bishop, a professional engineer employed by Cameco as the chief mine engineer of the Cigar Lake project and a qualified person for the purpose of National Instrument 43-101.

***Port Hope Conversion Facility***

Cameco reported in July 2007 that it discovered uranium and evidence of other production-associated chemicals in the soil and groundwater beneath its Port Hope uranium hexafluoride (UF<sub>6</sub>) plant, one of two production plants at the facility. Uranium dioxide (UO<sub>2</sub>) production that takes place in a separate building, as well as other activities at the site, are not affected. The following information provides an update on this issue since the second quarter report.

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Since the discovery, Cameco and independent experts have been investigating to determine the source of the chemicals. In addition, test holes continue to be drilled around the area to assist with testing the soil and groundwater in order to determine the precise area affected.

Based on a number of tests done on the eight monitoring wells that surround the plant, it still appears that the contamination is largely confined to soil and groundwater under the UF<sub>6</sub> plant. Information gathered so far also indicates that the materials are in an area contained within the Cameco property and do not affect the health and safety of employees and the public.

Groundwater testing to date indicates the presence of uranium, potassium, fluorides and traces of arsenic in some of the soil. Golder Associates Ltd. (Golder) has been hired by Cameco to provide the lead on independent environmental management expertise and their work is also being reviewed by other independent experts. Golder is taking ongoing sets of samples from wells and submitting these samples to an external lab for full analysis of metals, radium and major ions. This includes the monitoring wells located outside the UF<sub>6</sub> plant, as well as new test wells that have been installed inside and outside the plant over the past several weeks. Golder will also advise Cameco on preferred options for long-term environmental management of the contamination and on recommended building and equipment upgrades to prevent future incidents. Cameco expects to receive and begin evaluating additional information from Golder in the near future.

In July, Cameco indicated that full production of UF<sub>6</sub> would likely be suspended for a minimum of two months until the source of the chemicals had been found and an appropriate environmental management plan developed. It is now known that UF<sub>6</sub> production will be suspended for a period beyond the initial two months while Cameco continues its detailed, methodical investigation and develops its plan. There is not enough information at this time to estimate when UF<sub>6</sub> production will restart, but sufficient data to support an estimate is anticipated by early November.

While Cameco will make every effort to find alternative assignments for employees affected by the UF<sub>6</sub> shutdown, it may not be possible to avoid layoffs for part of the workforce at the Port Hope conversion facility.

Cameco plans to meet scheduled deliveries for the remainder of the year based on existing inventory and production from the Springfields facility. We are able to do this even if there is no Port Hope UF<sub>6</sub> production for this period.

Cameco has sufficient UF<sub>6</sub> inventory on hand to meet deliveries until the end of the first quarter of 2008. This assumes customers do not accelerate deliveries and other UF<sub>6</sub> production and purchases proceed as planned.

#### ***Short-term Investment Portfolio***

On August 20, 2007 Cameco provided information on its short-term investment portfolio in light of disruptions in the global credit markets.

The \$13 million in Canadian asset-backed commercial paper, which matured on August 17, 2007, remains outstanding. We continue to investigate the implications of the default and remedies available.

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Of the \$101 million (US) (\$106 million (CDN)) Cameco had invested in US asset-backed commercial paper, \$91 million (US) (\$96 million (CDN)) has matured or been sold and Cameco has received payment. There remains one investment of \$10 million (US) (\$11 million (CDN)) outstanding, which will mature on September 18, 2007. S&P and Moody's rate this investment A1+/P1.

While we expect the outstanding US investment will be repaid to Cameco when it matures, there is uncertainty until the disruptions in the global credit markets are resolved. If repayment is disrupted, we do not expect this would impact our plans for the company going forward.

All conversions to Canadian dollars have been made at a US/Canadian exchange rate of \$1.05.

Cameco, with its head office in Saskatoon, Saskatchewan, is the world's largest uranium producer. The company's uranium products are used to generate electricity in nuclear energy plants around the world, providing one of the cleanest sources of energy available today. Cameco's shares trade on the Toronto and New York stock exchanges. Statements contained in this news release, 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: the impact of the sales volume of fuel fabrication services, uranium, conversion services, electricity generated and gold; volatility and sensitivity to market prices for uranium, conversion services, electricity in Ontario and gold; competition; the impact of change in foreign currency exchange rates and interest rates; imprecision in decommissioning, reclamation, reserve and tax estimates; environmental and safety risks including increased regulatory burdens and long-term waste disposal; unexpected geological or hydrological conditions; adverse mining conditions; political risks arising from operating in certain developing countries; terrorism; sabotage; a possible deterioration in political support for nuclear energy; changes in government regulations and policies, including tax and trade laws and policies; demand for nuclear power; replacement of production; failure to obtain or maintain necessary permits and approvals from government authorities; legislative and regulatory initiatives regarding deregulation, regulation or restructuring of the electric utility industry in Ontario; Ontario electricity rate regulations; natural phenomena including inclement weather conditions, fire, flood, underground floods, earthquakes, pit wall failure and cave-ins; 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 customers' facilities; decrease in electrical production due to planned outages extending beyond their scheduled periods or unplanned outages; success of planned development projects; 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.

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