



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

May 21, 2013

Via E-Mail

Mr. Grant Isaac
Chief Financial Officer
Cameco Corporation
2121-11th Street West
Saskatoon
Saskatchewan, Canada S7M 1J3

**Re: Cameco Corporation
Form 40-F for the Year Ended December 31, 2012
Filed February 22, 2013
Correspondence submitted on May 3, 2013
File No. 001-14228**

Dear Mr. Isaac:

We have reviewed your filing and response and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filings, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 40-F for the Year Ended December 31, 2012

Exhibit 99.2 – Audited Financial Statements

6. Accounting for Kintyre, page 25

1. We note your response to comment 1 from our letter dated April 12, 2013 indicating that you exert control over the key strategic decisions and day-to-day activities of the Kintyre project. We also understand that you believe that IAS 27 does not apply because Kintyre is not a legal entity and was not acquired through a legal entity or subsidiary. Please address the following points:

- Clarify why you believe consolidation is not appropriate for the Kintyre project, given your representation that you maintain control over the project and considering the definition of a subsidiary in paragraph 4 of IAS 27;
- Cite the reference in IAS27 that precludes application of IAS 27 to investees that are not legal entities; and
- Separately quantify the amount of acquisition costs and exploration costs that are recorded in property, plant and equipment related to this project as of December 31, 2012.

24. Income Taxes, page 36

A. Significant components of deferred tax assets and liabilities, page 36

2. We note your response to comment 2 in our letter dated April 12, 2013 and understand that you believe that you will utilize all of your deferred tax assets related to your Canadian operations based on projected future earnings performed by management. We also understand that your projections assume that you will reach full production capacity at the Cigar Lake mine. Please address the following points:
 - Tell us why you believe that your future projections represent “convincing other evidence” to overcome the history of tax losses experienced by your Canadian operations.
 - Quantify the amount of tax losses generated by your Canadian operations in each of the past three years.
 - Provide a schedule which details the amount of Canadian tax loss carry forwards that will expire by year.
 - Provide an update on the status of your efforts to bring the Cigar Lake mine to full production capacity.

Mr. Grant Isaac
Cameco Corporation
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You may contact Brian McAllister at (202) 551-3341 or Craig Arakawa at (202) 551-3650 if you have questions regarding the accounting comments. Please contact me at (202) 551-3871 with any other questions.

Sincerely,

/s/Tia L. Jenkins

Tia L. Jenkins
Senior Assistant Chief Accountant
Office of Beverages, Apparel, and
Mining