



DIVISION OF
CORPORATION FINANCE
MAIL STOP 7010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

August 13, 2007

via U.S. Mail

Mr. Devinder Randhawa
Chief Executive Officer
Strathmore Minerals Corporation
700-1620 Dickson Ave.,
Kelowna, B.C. Canada
V1Y 9Y2

**Re: Strathmore Minerals Corporation
Amendment No. 1 to Registration Statement on Form 20-F
Filed July 13, 2007
File No. 0-52508**

Dear Mr. Randhawa:

We have reviewed your amended filing and have the following comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. You will expedite our review by filing via EDGAR a properly redlined version of the amendment that reflects all changes to the document. In that regard, we note that you appear to have submitted as correspondence more than one version of the amended filing.
2. Moreover, ensure that all changes are accurately identified. In that regard, we noted a number of errors or omissions in the version that you provided supplementally to the staff, including text changed in response to prior comments 20 and 25.

3. We reissue prior comment 2. For example, update the information regarding the British Columbia Supreme Court's review of the proposed plan of reorganization. Similarly, update the information required by Item 3.A.3 of Form 20-F.
4. We note disclosure of the approval by shareholders of the Plan of Arrangement on June 19, 2007. We note also the record date established for purposes of the shares to be distributed pursuant to the Plan of Arrangement. Please provide us with your analysis regarding (1) how you intend to register the proposed transaction or (2) any exemption from registration upon which you intend to rely with respect to the distribution of the spin-off shares. We may have further comment.
5. Please file all material contracts and letters of intent. In this regard, it does not appear that you have filed the letters of intent entered into in April 2007 and the joint venture agreement entered into with Sumitomo Corp of Japan in June 2007.

3.D. Risk Factors, page 11

Risks Relating to an Investment in the Securities of the Company, page 13

"Under the Plan of Arrangement , Officers..." page 14

6. Provide additional detail regarding the percentage of time that you anticipate the officers and directors will dedicate to each of Strathmore and Fission.

4.B. Business Overview, page 25

7. We refer you to Item 4.B.4 of Form 20-F. Although reference to the volatility of uranium prices is made in the risk factor discussion on page 11, the disclosure in this section and in the risk factor on page 11 should provide further detail regarding any recent events affecting supply and demand for uranium in the markets within which you intend to operate which reasonably could be expected to have an adverse impact on you or your operations or your prospects. Please revise the disclosure in this section and to the extent applicable, the risk factor section, to disclose the reasons for the volatility in uranium prices.

Item 6. Directors, Senior Management, and Employees, page 82

8. We partially reissue prior comment 20. The biographical sketches do not fully disclose the activities of some of your officers and directors during the prior 5 years. We note continued gaps in the sketches of Messrs. Halvorson, Larson, Groening, Quatermain and Dr. Hans von Michaelis. Please revise your disclosure accordingly.

Form 20-F for the Fiscal Year Ended December 31, 2006

Financial Statements, page 103

Unaudited Interim Financial Statements, page 104

9. We note that the amounts presented for mineral property interests, total assets, capital stock, contributed surplus, deficit, total shareholders' equity, and total liabilities and shareholders' equity, as of December 31, 2006, which you present as comparative information in your interim financial statements as of March 31, 2007, do not agree with the corresponding amounts presented in your fiscal 2006 financial statements presented beginning on page 118. Please amend your filing to correct these discrepancies.

Engineering Comment

10. We note that you refer to or use the terms such as potential mineralization, drill indicated resources, demonstrated, measured, indicated, or inferred resource on your website. As you may know, for U.S. reporting purposes, measures of mineral reserves must be consistent with the definitions set forth in Industry Guide 7. These generally differ from measurement systems that guide the estimation of resources. If you continue to make references on your web site to reserve measures other than those recognized by the SEC, please accompany such disclosure with the following cautionary language:

“Cautionary Note to U.S. Investors - The United States Securities and Exchange Commission limits disclosure for U.S. reporting purposes to mineral deposits that a company can economically and legally extract or produce. We use certain terms on this web site, such as “reserves,” “resources,” “geologic resources,” “proven,” “probable,” “measured,” “indicated,” or “inferred,” which may not be consistent with the reserve definitions established by the SEC. U.S. investors are urged to consider closely the disclosure in our Form XXX, File No. 000-52508. You can review and obtain copies of these filings from the SEC website at <http://www.sec.gov/edgar.shtml>.”

Closing Comments

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. You may wish to provide us with marked copies of draft amendments to expedite our review. Please furnish a cover letter with your amendments that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

Devinder Randhawa
Strathmore Minerals Corporation
August 13, 2007
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We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Donald Delaney at (202) 551-3863 or, in his absence, Karl Hiller Accounting Branch Chief, at (202) 551-3686 with any questions on the accounting comments. Please contact George K. Schuler, Mining Engineer, at (202) 551-3718 with any questions on the engineering comments. You may contact Mellissa Campbell Duru at (202) 551-3757 or, in her absence, Timothy Levenberg, Special Counsel, at (202) 551-3707 with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director

via facsimile
Patrick Groening, CFO
250-868-8493

cc: D.Delaney
M.Duru
T. Levenberg
K.Hiller
K. Schuler