

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

March 10, 2008

By U.S. mail and facsimile to (847) 439-0737

Mr. James M. Froisland Senior Vice President, Chief Financial Officer, Chief Information Officer and Corporate Secretary Material Sciences Corporation 2200 East Pratt Boulevard Elk Grove Village, IL 60007

RE: Material Sciences Corporation Form 10-K for the fiscal year ended February 28, 2007 Filed May 11, 2007

File No. 1-8803

Dear Mr. Froisland:

We have reviewed your response letter dated February 19, 2008 and have the following additional comment. If you disagree, we will consider your explanation as to why our comment is inapplicable. We may or may not raise additional comments.

Form 10-K for the year ended February 28, 2007

Note 14: Business Segments, page 52

1. We have read your response to comment 2 in our letter dated January 23, 2008, and reviewed the supplemental information provided to us. Based on the collective information given to us, it appears that information about products and services you manufacture and provide would help your readers gain a better understanding of the scope of your operations. Therefore, in future filings, beginning with your Form 10-K for the year ended February 29, 2008, please provide the information required in paragraph 37 of SFAS 131.

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As appropriate, please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your response to our comment. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing your response to our comment.

Mr. James M. Froisland Material Sciences Corporation March 10, 2008 Page 2

You may contact Jenn Do at (202) 551-3743, Al Pavot at (202) 551-3738 or me at (202) 551-3355 if you have questions regarding these comments.

Sincerely,

Terence O'Brien Branch Chief