



DIVISION OF  
CORPORATION FINANCE

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

April 12, 2011

Mr. Mark Weinswig  
Chief Financial Officer  
EMCORE Corporation  
10420 Research Road, SE  
Albuquerque, NM 87123

**Re: EMCORE Corporation**  
**Form 10-K for the fiscal year ended September 30, 2010**  
**Filed January 10, 2011**  
**Form 10-Q for the quarterly period ended December 31, 2010**  
**File No. 000-22175**

Dear Mr. Weinswig:

We have reviewed your response dated April 6, 2011 and related filings 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

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Form 10-Q for the quarterly period ended December 31, 2010

Notes to Condensed Consolidated Financial Statements, page 7

Note 13. San'an Joint Venture, page 20

1. We refer to your response to comment 3. In future filings, please disclose how you are accounting for the \$8.5 million of consulting fees for services provided to Suncore.
2. We acknowledge your response our prior comment 4. In future filings, please clarify the company's contribution requirements under the San'an joint venture, similar to the response provided.

You may contact Leigh Ann Schultz at 202-551-3628 or Gary Todd at 202-551-3605 if you have questions regarding comments on the financial statements and related matters. You may also contact me at (202) 551-3676 with any other questions.

Sincerely,

for

Brian Cascio  
Accounting Branch Chief