

April 20, 2011

Mr. Brian Cascio  
Accounting Branch Chief  
United States Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549

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. Cascio:

EMCORE Corporation (the "Company") respectively submits the following responses to the comment letter dated April 12, 2011 that we received from the Staff of the United States Securities and Exchange Commission (the "Staff") regarding the Company's Quarterly Report on Form 10-Q for the period ended December 31, 2010. The Company's responses below correspond to the captions and numbers of those comments (which are reproduced below in italics).

**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.***

**RESPONSE:**

In future filings, the Company will disclose the method used to account for the consulting fees similar to our previous response provided to the Staff.

- 2. We acknowledge your response to 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.***

**RESPONSE:**

In future filings, the Company will clarify the Company's contribution requirements under the San'an joint venture similar to our previous response provided to the Staff.

\* \* \*

In connection with responding to your comments and with this submission, we hereby acknowledge 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 law of the United States.

We believe the responses above fully address the comments contained in your letter. Please call me at (505) 559.2810 if you have any questions regarding the above responses.

Sincerely,

/s/ Mark Weinswig

Mark Weinswig  
Chief Financial Officer  
EMCORE Corporation