

PART I - REGISTRANT INFORMATION

Full Name of Registrant: EMCORE Corporation
Former Name if Applicable: Not applicable
Address of Principal Executive Office (Street and Number): 10420 Research Road, SE
City, State and Zip Code: Albuquerque, NM 87123

PART II -- RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

(a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;

(b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report of transition report on Form 10-Q, or portion thereof will be filed on or before the fifth calendar day following the prescribed due date; and

(c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III -- NARRATIVE

State below in reasonable detail the reasons why Forms 10-K, 20-F, 11-K, 10-Q, N-SAR, N-CSR, or the transition report portion thereof, could not be filed within the prescribed time period.

In conjunction with the deterioration in the macroeconomic environment and the material reduction in the market value of the Registrant's publicly traded common stock, EMCORE Corporation (the "Company") is evaluating its goodwill for impairment in accordance with the Financial Accounting Standards Board's Statement of Financial Accounting Standard No. 142, "Goodwill and Intangible Assets". The determination as to whether a write-down of goodwill is necessary involves significant judgment based on the short-term and long-term projections of the future performance of the reporting unit to which the goodwill is attributed. To the extent that the Company incurs such impairment charge, it will be non-cash in nature. The Company expects to complete the impairment evaluation of its goodwill and intangible assets by December 30, 2008.

As a result of the time necessary to complete this evaluation, the Company seeks relief pursuant to Rule 12b-25. The Company anticipates that it will be able to file its Annual Report on Form 10-K for the fiscal year ended September 30, 2008 with the Securities and Exchange Commission within the fifteen-day period, or December 30, 2008, the extended deadline provided under Rule 12b-25 (b)(2)(ii).

PART IV-- OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification

Keith J. Kosco	(505)	332-5000
(Name)	(Area Code)	(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

On December 11, 2008, the Company issued a press release disclosing its preliminary unaudited results for the fourth quarter and fiscal year ended September 30, 2008. The Company reported a net loss of \$59.0 million or \$0.87 loss per basic share for the year ended September 30, 2008. For the year ended September 30, 2007, the Company reported a net loss of \$58.7 million or \$1.15 loss per basic share. Financial highlights include:

Fiscal 2008:

- In June and July 2008, the Company sold a total of two million shares of Series D Preferred Stock of WorldWater and Solar Technologies Corporation, together with 200,000 warrants to a major shareholder of both the Company and WWAT at a price equal to \$6.54 per share. The Company recognized a total gain of \$7.4 million on the sale of this stock.
- In February and April 2008, the Company acquired the telecom, datacom, and optical cable interconnects-related assets of Intel's Optical Platform Division for \$120 million in cash and the Company's common stock.
- In February 2008, the Company completed the sale of \$100 million of restricted common stock and warrants. Investors purchased 8 million shares of our common stock, no par value, and warrants to purchase an additional 1.4 million shares of our common stock.
- In January and February 2008, the Company redeemed all of its outstanding 5.5% convertible subordinated notes due 2011 pursuant to which the holders converted their notes into the Company's common stock.
- Fiscal 2008 operating expenses included \$4.8 million related to Intel Corporation's transition services agreement charges associated with the acquisition of certain assets from Intel.

Fiscal 2007:

- In November 2006, EMCORE invested \$13.5 million in WorldWater & Solar Technologies Corporation in return for convertible preferred stock and warrants.
- In April 2007, EMCORE modified its convertible subordinated notes to resolve an alleged default event. The interest rate was increased from 5% to 5.5% and the conversion price was decreased from \$8.06 to \$7.01. EMCORE also repurchased \$11.4 million of outstanding notes to reduce interest expense and share dilution.
- In April 2007, EMCORE acquired privately-held Opticomm Corporation for \$4.0 million in cash.
- Fiscal 2007 operating expenses included:
 - \$10.6 million related to our review of historical stock option granting practices;
 - \$9.4 million related to our new terrestrial solar power division; and,
 - \$8.9 million related to patent litigation against Optium Corporation and severance-related charges associated with facility closures and consolidation of operations.

Note:

In conjunction with the deterioration in the macroeconomic environment and the material reduction in the market value of the Company's publicly traded common stock, the Company is evaluating its goodwill for impairment in accordance with the Financial Accounting Standards Board's Statement of Financial Accounting Standard No. 142, "Goodwill and Intangible Assets". The determination as to whether a write-down of goodwill is necessary involves significant judgment based on the short-term and long-term projections of the future performance of the reporting unit to which the goodwill is attributed. To the extent that the Company incurs such impairment charge, it will be non-cash in nature. The Company expects to complete the impairment evaluation of its goodwill and intangible assets by December 30, 2008.

This notification of late filing on Form 12b-25 contains forward-looking statements regarding the Company's expectations concerning the filing of its fiscal 2008 Annual Report on Form 10-K. These forward-looking statements are based on the Company's current expectations and are subject to the completion of the audit of the Company's results for the fiscal year ended September 30, 2008 and risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and the Company undertakes no obligation to update these forward-looking statements to reflect subsequent events or circumstances.

EMCORE Corporation
(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: December 15, 2008 By: /s/ John M. Markovich

Name: John M. Markovich
Title: Chief Financial Officer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).
