

United States
Securities and Exchange Commission
Washington, D.C. 20549

FORM 12b-25

Notification of Late Filing

(Amendment No. 0)*

OMB Number 3234-0058	SEC File Number 0-22175	CUSIP Number 290846104
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(Check one): ☒ Form 10-K ☐ Form 20-F ☐ Form 11-K ☐ Form 10-Q ☐ Form 10-D ☐ Form N-SAR
☐ Form N-CSR

For Period Ended: September 30, 2009

- ☐ Transition Report on Form 10-K
☐ Transition Report on Form 20-F
☐ Transition Report on Form 11-K
☐ Transition Report on Form 10-Q
☐ Transition Report on Form N-SAR

For the Transition Period Ended: _____

Read Instruction (on back page) Before Preparing Form. Please Print or Type.
Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:
Not applicable

Part I - Registrant Information

EMCORE Corporation

Full Name of Registrant

Not applicable

Former Name if Applicable

10420 Research Road, SE

Address of Principal Executive Office (*Street and Number*)

Albuquerque, NM 87123

City, State and Zip Code

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 reason 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 or transition report on Form 10-Q or subject distribution report on Form 10-D, 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 why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

As a result of the time necessary to complete the compilation and audit of the Company's financial statements, the Company was unable to complete the filing of its Form 10-K for the fiscal year ended September 30, 2009 by the due date of December 14, 2009, without unreasonable effort or expense. The Company believes that it will be able to file its Form 10-K for the fiscal year ended September 30, 2009 within the fifteen calendar day period provided under Rule 12b-25(b).

Part IV - Other Information

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

Mr. John M. Markovich	(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?

Yes ☒ No ☐

If answer is no, identify report(s).

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.

During the fiscal year ended September 30, 2009, the Company experienced significant adverse changes in its results of operations (in particular, revenue, gross margin, operating loss, and net loss) when compared to the prior fiscal year due primarily to adverse changes in the macroeconomic environment. During the fiscal year ended September 30, 2009, the Company incurred approximately \$60.8 million of non-cash expenses related to impairment of goodwill and long-lived assets in its Fiber Optics business segment, primarily related to the Company's acquisition of Intel Corporation's fiber optics assets in 2008. The Company expects to report a net loss of approximately \$136 million for the fiscal year ended September 30, 2009.

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: 12-15-2009 By /s/ 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.

<p>Attention Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).</p>
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