

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

FORM S-8

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

EMCORE CORPORATION

(Exact name of registrant as specified in its charter)

New Jersey

(State or Other Jurisdiction of Incorporation or
Organization)

22-2746503

(I.R.S. Employer Identification No.)

10420 Research Road SE
Albuquerque, New Mexico

(Address of Principal Executive Offices)

87123

(Zip Code)

EMCORE Corporation 2010 Equity Incentive Plan

EMCORE Corporation Officer and Director Share Purchase Plan

(Full title of the plans)

Mark B. Weinswig
Chief Financial Officer
EMCORE Corporation
10420 Research Road SE
Albuquerque, New Mexico 87123
(Name and address of agent for service)

(505) 332-5000

(Telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

☐ Large accelerated filer

☒ **Accelerated filer**

☐ Non-accelerated filer

☐ Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (2)	Proposed maximum aggregate offering price (2)	Amount of registration fee(2)
Common Stock, no par value	4,500,000	\$1.37	\$6,165,000	\$715.76

- (1) This registration statement is being filed for purposes of registering 4,000,000 shares of Common Stock of EMCORE Corporation, issuable pursuant to our 2010 Equity Incentive Plan, as the same may be amended or restated (the “2010 Equity Incentive Plan”) and 500,000 shares of Common Stock of EMCORE Corporation, issuable pursuant to our Officer and Director Share Purchase Plan, as the same may be amended or restated (the “DOPP”) (collectively, the “Plans”). Pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this registration statement (the “Registration Statement”) also covers an indeterminate number of shares that may be offered or issued as a result of stock splits, stock dividends, or similar transactions.
- (2) Estimated pursuant to Rule 457(h) and Rule 457(c) of the General Rules and Regulations under the Securities Act of 1933, as amended (the “Securities Act”), for the purpose of computing the registration fee, based on the average of the high and low sales price on The NASDAQ Global Market on January 25, 2011.

This Registration Statement shall become effective upon filing in accordance with Rule 462(a) under the Securities Act of 1933.

INTRODUCTION

Pursuant to General Instruction E of Form S-8, the registrant, EMCORE Corporation (the “Registrant”), is filing this Registration Statement with respect to the issuance of 4,000,000 shares of its common stock, no par value per share (the “Common Stock”), under the 2010 Equity Incentive Plan, as the same may be amended or restated (the “2010 Equity Incentive Plan”) and the issuance of 500,000 shares of Common Stock, under the Officer and Director Share Purchase Plan, as the same may be amended or restated (the “DOPP”) (collectively, the “Plans”).

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information

The documents containing the information specified in Part I of Form S-8 have been or will be sent or given to participants in the Plans as specified by Rule 428(b)(1) of the Securities Act. Such documents are not being filed with the Securities and Exchange Commission (the “Commission”) either as part of this Registration Statement or as prospectuses, or prospectus supplements pursuant to Rule 424 of the Securities Act, but constitute (along with the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II hereof) a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information

Upon written or oral request, any of the documents incorporated by reference in Item 3 of Part II of this Registration Statement (which documents are incorporated by reference in the Section 10(a) prospectus), other documents required to be delivered to eligible employees pursuant to Rule 428(b) or additional information about the Plans are available without charge by contacting: Secretary, EMCORE Corporation, 10420 Research Road SE, Albuquerque, New Mexico 87123 or by calling (505) 332-5000.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents which have been filed (other than filings or portions of filings that are furnished under applicable SEC rules rather than filed) by the Registrant with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), are incorporated by reference herein and shall be deemed to be a part hereof:

- (a) The Registrant’s Annual Report on Form 10-K for the year ended September 30, 2010;
- (b) All Current Reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since September 30, 2010; and
- (c) The description of the Registrant’s Common Stock contained in the Registrant’s registration statement on Form 8-A filed with the Commission on February 26, 1997, including any amendments thereto or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed (other than filings or portions of filings that are furnished under applicable SEC rules rather than filed) by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and made a part hereof from their respective dates of filing (such documents, and the documents enumerated above, being hereinafter referred to as “Incorporated Documents”).

Any statement contained in an Incorporated Document shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed Incorporated Document modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information filed under current Items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts And Counsel

Not applicable.

Item 6. Indemnification of Directors And Officers

The Company’s Restated Certificate of Incorporation and By-Laws include provisions (i) to reduce the personal liability of the Company’s directors for monetary damage resulting from breaches of their fiduciary duty, and (ii) to permit the Company to indemnify its directors and officers to the fullest extent permitted by New Jersey law. The Company has obtained directors’ and officers’ liability insurance that insures such persons against the costs of defense, settlement, or payment of a judgment under certain circumstances.

Item 7. Exemption from Registration Claimed

Not applicable.

Item 8. Exhibits

<u>Exhibit No.</u>	<u>Exhibit Description</u>
4.1	2010 Equity Incentive Plan (incorporated by reference to the Appendix of Registrant's Proxy Statement filed on April 9, 2010).
4.2	Officer and Director Share Purchase Plan (incorporated by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on January 27, 2011)
4.3	Restated Certificate of Incorporation, dated April 4, 2008 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on April 4, 2008).
4.4	Amended By-Laws, as amended through August 7, 2008 (incorporated by reference to Exhibit 3.1 to Registrant's Current Report on Form 8-K filed on August 13, 2008).
5.1	Legal Opinion of Dillon, Bitar & Luther, L.L.C.*
23.1	Consent of Dillon, Bitar & Luther, L.L.C. (included in its opinion filed as Exhibit 5.1 in this Registration Statement).*
23.2	Consent of KPMG LLP*
23.3	Consent of Deloitte & Touche LLP.*
24.1	Powers of Attorney (included on the signature pages to this Registration Statement).*

* Filed herewith.

Item 9. Undertakings

A. Subsequent Disclosure

The undersigned Registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement;
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;
- provided, however*, that the undertakings set forth in paragraphs (i) and (ii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant, pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.
- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

B. Incorporation By Reference

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference into this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. Commission Position On Indemnification

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Albuquerque, State of New Mexico, on January 28, 2011.

EMCORE CORPORATION

By: /s/ Mark B. Weinswig
Mark B. Weinswig
Chief Financial Officer

Each person whose signature appears below constitutes and appoints and hereby authorizes Hong Q. Hou, Ph.D. and Mark B. Weinswig, jointly and severally, such person's true and lawful attorneys-in-fact, with full power of substitution or resubstitution, for such person and in his name, place and stead, in any and all capacities, to sign on such person's behalf, individually and in each capacity stated below, any and all amendments, including post-effective amendments to this Form S-8, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission granting unto said attorneys-in-fact, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this report has been signed below by the following persons on behalf of the Registrant in the capacities indicated, on January 28, 2011.

Signature	Title
<u>/s/ Thomas J. Russell, Ph.D</u> Thomas J. Russell, Ph.D	Chairman Emeritus
<u>/s/ Reuben F. Richards, Jr.</u> Reuben F. Richards, Jr.	Executive Chairman & Chairman of the Board
<u>/s/ Hong Q. Hou, Ph.D.</u> Hong Q. Hou, Ph.D	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Mark B. Weinswig</u> Mark B. Weinswig	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ Charles T. Scott</u> Charles T. Scott	Director
<u>/s/ John Gillen</u> John Gillen	Director
<u>/s/ Robert L. Bogomolny</u> Robert L. Bogomolny	Lead Independent Director
<u>/s/ Sherman McCorkle</u> Sherman McCorkle	Director

INDEX TO EXHIBITS

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* Filed herewith.

DILLON, BITAR & LUTHER L.L.C.
53 MAPLE AVENUE
MORRISTOWN, NJ 07960

January 28, 2011

EMCORE Corporation
10420 Research Road, S.E.
Albuquerque, NM 87123

Re: EMCORE Corporation
Registration Statement on Form S-8

Ladies and Gentlemen:

We are providing this opinion letter in our capacity as special counsel to EMCORE Corporation, a New Jersey corporation (the "Company"), in connection with the filing by the Company of a registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), with the United States Securities and Exchange Commission (the "Commission"). The Registration Statement relates to the registration of (i) 4,000,000 shares of the Company's common stock that may be issued by the Company pursuant to the terms and provisions of the Company's 2010 Equity Incentive Plan and (ii) 500,000 shares of the Company's common stock that may be issued by the Company pursuant to the terms and provisions of the Company's Officer and Director Share Purchase Plan. The 4,500,000 shares of the Company's common stock are collectively referred to herein as the "Shares" and each of the respective plans named above is referred to herein as the "Plan" and collectively as the "Plans."

You have requested that we render the opinion set forth in this letter and we are furnishing this opinion in accordance with the requirements of Part II, Item 8 of Form S-8 and Item 601(b)(5)(i) of Regulation S-K promulgated by the Commission under the Securities Act.

In connection with the foregoing registration, we have examined originals, or copies certified or otherwise identified to our satisfaction, of (i) the Registration Statement in the form provided to us by the Company, (ii) the Company's Restated Certificate of Incorporation, as amended and restated to date (the "Certificate of Incorporation"), (iii) the Company's By-Laws, as amended and/or restated to date (the "By-Laws"), (iv) certain resolutions of the Board of Directors of the Company relating to the Shares and the registration thereof, and (v) such other documents as we have deemed necessary or appropriate for purposes of rendering the opinion set forth herein.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such latter documents. As to any facts material to the opinion expressed herein that were not independently established or verified by us, we have relied upon statements and representations of officers and other representatives of the Company and others.

We do not express or purport to express any opinions with respect to laws other than the Federal laws of the United States and the laws of the State of New Jersey.

Based upon and subject to the foregoing, we are of the opinion that the Shares will, if issued and delivered in accordance with the terms and provisions of the respective Plan, be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Commission as an Exhibit to the Registration Statement. In giving this consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should present Federal laws or the present laws of the State of New Jersey be changed by legislative action, judicial decision or otherwise.

Very truly yours,

/s/ Dillon, Bitar & Luther, L.L.C.

DILLON, BITAR & LUTHER, L.L.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors

EMCORE Corporation:

We consent to the use of our reports with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting incorporated by reference herein.

Our report dated January 10, 2011, on the effectiveness of internal control over financial reporting as of September 30, 2010, expressed our opinion that EMCORE Corporation did not maintain effective internal control over financial reporting as of September 30, 2010 because of the effect of material weaknesses on the achievement of the objective of the control criteria and contains an explanatory paragraph that states material weaknesses related to certain inventory reserve transactions and certain inventory held by third parties have been identified and included in management's assessment.

/s/ KPMG LLP

KPMG LLP

Albuquerque, New Mexico
January 27, 2011

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated December 29, 2009 (January 10, 2011, as to the effects of correcting the 2009 financial statements described in Note 2) relating to the 2009 and 2008 consolidated financial statements of EMCORE Corporation and subsidiaries appearing in the Annual Report on Form 10-K of EMCORE Corporation for the year ended September 30, 2010.

/s/ Deloitte & Touche LLP

Deloitte & Touche LLP

Dallas, Texas

January 28, 2011