

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934
or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Larocca Christopher M</u> (Last) (First) (Middle) <u>10420 RESEARCH ROAD SE</u> (Street) <u>ALBUQUERQUE NM</u> <u>87123</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>EMCORE CORP [EMKR]</u> 3. Date of Earliest Transaction (Month/Day/Year) <u>08/22/2012</u> 4. If Amendment, Date of Original Filed (Month/Day/Year)	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Operating Officer</u> 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person
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Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned										
1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	08/22/2012		M		4,167	A	(1)	18,047(2)	D	
Common Stock	08/23/2012		S(3)		1,582	D	\$4.9718(4)	16,465(2)	D	
Common Stock								6,267(5)	I	By 401(k) Plan

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)															
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V					Title	Amount or Number of Shares				
Common Stock	(1)	08/22/2012		M			4,167	(6)	(7)	Common Stock	4,167	(8)	8,333	D	

Explanation of Responses:

1. Each restricted stock unit represents a contingent right to receive one share of Emcore common stock. Restricted stock units are payable, at the election of the issuer, in cash, Emcore common stock, or a combination of the two.

2. Includes 11,667 shares of restricted stock granted under the Company's 2010 Equity Incentive Plan, vesting in two equal annual installments beginning on January 28, 2013.

3. All sales were effected pursuant to a 10b5-1 plan previously adopted by the Reporting Person to satisfy the Reporting Person's tax liability in connection with the vesting of shares of restricted stock that were granted under the Company's 2010 Equity Incentive Plan, which grant was exempt from Section 16b pursuant to Rule 16b-3(d).

4. Reflects aggregate reporting of multiple open market transactions. The price reported is the weighted average sale price of sales ranging from \$4.97 to \$5.04 per share. The reporting person hereby undertakes to provide, upon request by the staff of the Securities and Exchange Commission, the issuer, or a security holder of the issuer, full information regarding the number of shares sold at each price.

5. Shares attributable to EMCORE Corporation 401(k) account as of June 30, 2012.

6. 4,167 restricted stock units vesting on August 22, 2012

7. Remaining unvested restricted stock units vest in two equal annual installments commencing on August 22, 2013. Not later than 30 days after vesting occurs, vested shares of Emcore common stock, an amount in cash equal to their fair market value or a combination of both will be delivered to the reporting person.

8. The restricted stock units were awarded to the reporting person for no cash or other similar consideration.

Remarks:

Alfredo Gomez, attorney-in-fact 08/24/2012
** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.
* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.
Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.