FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPRO              | VAL       |
|------------------------|-----------|
| OMB Number:            | 3235-0287 |
| Estimated average burd | en        |
| hours per response:    | 0.5       |

## Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## 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>Gomez Alfredo</u>                    |   |  |  |       |            |   | 2. Issuer Name and Ticker or Trading Symbol EMCORE CORP [ EMKR ] |     |                                    |        |                     |   |             |                      |                           | all app  | applicable)<br>rector   |   | Person(s) to Issuer  10% Owner           |  |  |  |
|--|---|--|--|-------|------------|---|--|-----|------------------------------------|--------|---------------------|---|-------------|----------------------|---------------------------|--|---|---|--|--|--|--|
| (Last)<br>10420 RI   | (Fir  | ,  | Middle)  |       |            | 3. Date of Earliest Transaction (Month/Day/Year) 04/29/2011 |  |     |                                    |        |                     |   |             |                      | X                         | Officer (give title below)  Gen. Counsel       |   | Other (spe<br>below)<br>and Corp. Sec.                            |  |  |  |  |
| (Street) ALBUQUERQUE NM 87123 (City) (State) (Zip)                               |   |  |  |       |            | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |  |     |                                    |        |                     |   |             |                      | . Indiv<br>ine)<br>X      | Form   | dual or Joint/Group Filing (Check Applicable  Form filed by One Reporting Person  Form filed by More than One Reporting  Person |   |  |  |  |  |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |   |  |  |       |            |   |  |     |                                    |        |                     |   |             |                      |                           |  |   |   |  |  |  |  |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Date)                    |   |  |  |       |            | ar)   i   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year)      |     | 3.<br>Transaction<br>Code (Instr.  |        |                     |   |             |                      | 4 and Secu<br>Bene<br>Own |  | cially<br>I Following   | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) |  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)  |  |  |
|  |   |  |  |       |            |   |  |     |                                    | v      | Amount              | (   | A) or<br>D) | Price                | ,                         | Reported<br>Transaction(s)<br>(Instr. 3 and 4) |   |   |  | (111511.4)   |  |  |
| Emcore C   | Common Sto  | ock  |  | 04/29 | 9/2011     | L   |  |     | A                                  |        | 191 <sup>(2)</sup>  |   | A           | \$2.                 | .61                       | 51,224 <sup>(3)</sup>                          |   | 51,224 <sup>(3)</sup> D   |  |  |  |  |
| Emcore Common Stock  |   |  |  |       |            |   |  |     |                                    |        |                     |   |             |                      |                           | 4,721(1)                                       |   |   | I  | By Trust<br>401(k)   |  |  |
|  |   | Та   | ble II - C   |       |            |   |  |     |                                    |        | sed of,<br>onvertib |   |             |                      |                           | vned   |   |   |  |  |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                              | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Dat<br>if any<br>(Month/Day/Ye | Date, | Code (Inst |   |  |     | 6. Date E<br>Expiratio<br>(Month/D | n Date | •                   | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |             |                      | Deriv<br>Secu             | Price of<br>rivative<br>curity<br>str. 5)      | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s<br>(Instr. 4)       | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | vnership<br>orm:<br>rect (D)<br>Indirect | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |  |
|  |   |  |  |       | Code       | v   | (A)  | (D) | Date<br>Exercisa                   |        | Expiration<br>Date  | Title   | or          | ount<br>nber<br>ıres |                           |  |   |   |  |  |  |  |

## Explanation of Responses:

- 1. Shares attributable to EMCORE Corporation 401(k) account as of March 31, 2011.
- 2. Shares were purchased under the Company's Director and Officer Share Purchase Plan in a transaction exempt from Section 16b pursuant to Rule 16b-3(d).
- $3. \ Includes \ 50,000 \ shares \ of \ restricted \ stock \ granted \ under \ the \ Company's \ 2010 \ Equity \ Incentive \ Plan, \ vesting \ in \ three \ equal \ installments \ beginning \ on \ January \ 28, \ 2012.$

/s/ Alfredo Gomez 05/03/2011

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  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.

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