FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| n, D.C. 20549 | OMB APPROVAL |
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| OMB Number: | 3235-0287 |
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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* SMITH JOHN ALEXANDER | | | | | 2. Issuer Name and Ticker or Trading Symbol MKS INSTRUMENTS INC [MKSI] | | | | | | | | | ationship of all applicat Director Officer (g | , | | 10% Ow | s) to Issuer 10% Owner Other (specify | |
|--|--|--|---|------------------------------|--|--|------|---|---------------------|----------------------------|------------------|---------|------------------------------|--|--|-----------|---|---|--|
| (Last) 2 TECH | ` | irst) | (Middle) | | Date of Earliest Transaction (Month/Day/Year) 12/23/2012 | | | | | | | | X | below) | | | below) | респу | |
| (Street) ANDOVER MA 01810 | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | 6. Indi Line) X | <i>'</i> | | | | | |
| (City) | (S | State) | (Zip) | | Form filed | | | | | | | | u by More | ulali | эпе кероп | ng Person | | | |
| | | Т | able I - Non-D | eriva | tive S | ecurities | s Ac | quire | l, Dis | posed (| of, or Be | neficia | ally (| Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | te | Execution Da | | | Cod | sactior e (Instr | | | | and 5) Securit Benefic | | es Fo ally (D Following (I) | | Direct Indirect Itr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | | | Cod | V | Amount (A) or (D) | | Pric | e | Transaction (Instr. 3 and | on(s) nd 4) | | | msu. 4) | | |
| | 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. Transa Code (8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisal Expiration Date (Month/Day/Year | | е | Securities Under | | ing | 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 | Beneficial Ownership (Instr. 4) | |
| | | Code | v | (A) | (D) E | | | Expiration Date | Title | Amount Number Shares | | | | | | | | | |
| Restricted Stock Unit | (1) | 02/23/2012 | | A | | 4,291.163 | | (2) | | (2) | Common Stock | 4,291. | .163 | (1) | 15,089.1 | .65 | D | | |
| Restricted Stock Unit | (1) | 02/23/2012 | | A | | 2,860.776 | | (3) | | (3) | Common Stock | 2,860. | .776 | (1) | 10,359.7 | 777 | D | | |

Explanation of Responses:

- 1. Each restricted stock unit represents the contingent right to receive one share of common stock of MKS Instruments, Inc.
- 2. These RSUs are subject to the achievement of performance criteria determined in the first year of the grant and thereafter vests in equal annual installments over three years.
- 3. The RSUs vest in equal annual installments over three years.

/s/Renee M. Donlan POA 02/24/2012

** 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.