

SMITH JOHN ALEXANDER  
Form 4  
April 28, 2010

**FORM 4**

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

OMB APPROVAL

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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 OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
SMITH JOHN ALEXANDER

(Last) (First) (Middle)

2 TECH DRIVE

(Street)

ANDOVER, MA 01810

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol

MKS INSTRUMENTS INC [MKSI]

3. Date of Earliest Transaction (Month/Day/Year)

04/26/2010

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

\_\_\_ Director \_\_\_ 10% Owner  
\_X\_ Officer (give title below) \_\_\_ Other (specify below)

V.P. & Chief Tech Officer

6. Individual or Joint/Group Filing(Check Applicable Line)

\_X\_ 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. 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 Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
|                                 |                                      |  |                                | Code V  | Amount (A) or (D) Price   |  |                                   |
| Common Stock                    | 04/26/2010                           |  |                                | M   | 461 A \$ 18.44  | 461  | D                                 |
| Common Stock                    | 04/26/2010                           |  |                                | M   | 2,188 A \$ 14.72  | 2,649  | D                                 |
| Common Stock                    | 04/26/2010                           |  |                                | S   | 2,649 D \$ 24.33  | 0  | D                                 |

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

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number.

**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 (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|--|--|---|----------------------------|
| Stock Option (Right to Buy)                | \$ 18.44   | 04/26/2010                           |  | M                              | 461  | 06/24/2003 <sup>(1)</sup> 06/24/2012                     | Common Stock  | 461                        |
| Stock Option (Right to Buy)                | \$ 14.72   | 04/26/2010                           |  | M                              | 2,188  | 07/30/2005 <sup>(2)</sup> 07/30/2014                     | Common Stock  | 2,188                      |

## Reporting Owners

| Reporting Owner Name / Address                            | Relationships |           |                           |       |
|---|---------------|-----------|---------------------------|-------|
|   | Director      | 10% Owner | Officer                   | Other |
| SMITH JOHN ALEXANDER<br>2 TECH DRIVE<br>ANDOVER, MA 01810 |               |           | V.P. & Chief Tech Officer |       |

## Signatures

/s/Renee M. Donlan POA  
04/28/2010  
Date

\*\*Signature of Reporting Person

## Explanation of Responses:

- \* 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).
- (1) Vests 100% after one year.
- (2) 25% after first year, 6.25% each quarter thereafter - total 4 years.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.