

SMITH JOHN ALEXANDER  
 Form 5  
 February 12, 2010

**FORM 5**

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

OMB APPROVAL  
 OMB Number: 3235-0362  
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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).  
 Form 3 Holdings Reported Form 4 Transactions Reported

**ANNUAL 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

1. Name and Address of Reporting Person \*  
 SMITH JOHN ALEXANDER  
 (Last) (First) (Middle)

2. Issuer Name and Ticker or Trading Symbol  
 MKS INSTRUMENTS INC [MKSI]

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)  
 \_\_\_ Director \_\_\_ 10% Owner  
 Officer (give title below) \_\_\_ Other (specify below)  
 V.P. & Chief Tech Officer

2 TECH DRIVE  
 (Street)

3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)  
 12/31/2009

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

6. Individual or Joint/Group Reporting  
 (check applicable line)

ANDOVER, MA 01810  
 (City) (State) (Zip)

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)<br>(A) or (D) Price | 5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|--|--|-----------------------------------|
|---------------------------------|--------------------------------------|--|--------------------------------|---|--|--|-----------------------------------|

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

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**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 | 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) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) |
|--|------------------------------------|--------------------------------------|--|--------------------------------|---|--|---|
|--|------------------------------------|--------------------------------------|--|--------------------------------|---|--|---|

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| Derivative Security   | or Disposed of (D) |     | Date Exercisable | Expiration Date | Title        | Amount or Number of Shares |
|-----------------------|--------------------|-----|------------------|-----------------|--------------|----------------------------|
|                       | (A)                | (D) |                  |                 |              |                            |
| Restricted Stock Unit | 03/16/2009         | A4  | 1,400 (2)        | (3)             | Common Stock | 1,400                      |

## 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                      02/12/2010

\_\_Signature of Reporting Person                      Date

## 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) Each restricted stock unit represents the contingent right to receive one share of common stock of MKS Instruments, Inc.
- (2) These shares were inadvertently not reported with the equity grant on March 16, 2009.
- (3) These shares are subject to the achievement of performance criteria, and thereafter shall vest in equal annual installments over three years.

Note: File three copies of this Form, one of which must be manually signed. If space provided 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.