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# FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| 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

| OMB APPR              | OVAL      |
|-----------------------|-----------|
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| hours per response:   | 0.5       |

| 1. Name and Address of Reporting Person*<br>ANDERSON ROBERT R |         |          | 2. Issuer Name <b>and</b> Ticker or Trading Symbol<br><u>MKS INSTRUMENTS INC</u> [ MKSI ] | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br>X Director 10% Owner |
|---|---------|----------|---|--|
|   |         |          |   | A Director 1070 Owner  |
| (Last) (First) (Middle)                                       |         | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year)<br>02/06/2012                            | Officer (give title Other (specify below) below)   |
| 2 TECH DRIV   | VE      |          |   |  |
| ,   |         |          | 4. If Amendment, Date of Original Filed (Month/Day/Year)                                  | 6. Individual or Joint/Group Filing (Check Applicable Line)  |
| (Street)  |         |          |   | X Form filed by One Reporting Person   |
| ANDOVER   | MA      | 01810    |   | Form filed by More than One Reporting  |
| P   |         |          |   | Person   |
| (City)  | (State) | (Zip)    |   |  |

### Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

|                                 | -  | -   |                             |   |        |                 |                         |   |   |   |
|---------------------------------|--|---|-----------------------------|---|--------|-----------------|-------------------------|---|---|---|
| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | Transaction<br>Code (Instr. |   |        |                 |                         | 5. Amount of<br>Securities<br>Beneficially<br>Owned Following<br>Reported | 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) |
|                                 |  |   | Code                        | v | Amount | nt (A) or Price |                         | Transaction(s)<br>(Instr. 3 and 4)  |   | (instr. 4)  |
| Common Stock                    | 02/06/2012                                 |   | М                           |   | 5,000  | A               | \$20.07                 | 26,000  | D   |   |
| Common Stock                    | 02/06/2012                                 |   | М                           |   | 4,000  | A               | \$15.84                 | 30,000  | D   |   |
| Common Stock                    | 02/06/2012                                 |   | S                           |   | 5,000  | D               | \$31.992(1)             | 25,000  | D   |   |
| Common Stock                    | 02/06/2012                                 |   | S                           |   | 4,000  | D               | \$31.972 <sup>(2)</sup> | 21,000  | D   |   |

### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

(e.g., puts, calls, warrants, options, convertible securities)

| 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 Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | of  |       | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|-----|-------|--|--------------------|--|--|---|--|--|--|
|   |   |  |   | Code                         | v | (A) | (D)   | Date<br>Exercisable  | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of<br>Shares |   |  |  |  |
| Director<br>Stock<br>Option<br>(Right to<br>Buy)    | \$20.07   | 02/06/2012                                 |   | М                            |   |     | 5,000 | (3)  | 05/14/2014         | Common<br>Stock  | 5,000                                  | \$0   | 0  | D  |  |
| Director<br>Stock<br>Option<br>(Right to<br>Buy)    | \$15.84   | 02/06/2012                                 |   | М                            |   |     | 4,000 | (3)  | 05/08/2015         | Common<br>Stock  | 4,000                                  | \$0   | 8,000  | D  |  |

#### Explanation of Responses:

1. This transaction was executed in multiple trades at prices ranging from \$31.99 to \$32.01 The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.

2. This transaction was executed in multiple trades at prices ranging from \$31.96 to \$32.00 The price reported above reflects the weighted average sale price. The reporting person hereby undertakes to provide, upon request, the full information regarding the number of shares and prices at which the transaction was effected.

3. Option vests in full on the earlier of (i) the day before the subsequent year's annual meeting of shareholders or (ii) thirteen months from the date of grant.

02/07/2012

\*\* Signature of Reporting Person

/s/Renee M. Donlan POA

Date

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

 $\ast$  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.