FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

|   | OMB APPRO                | VAL       |  |  |  |  |  |  |  |
|---|--------------------------|-----------|--|--|--|--|--|--|--|
|   | OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |
| l | Estimated average burden |           |  |  |  |  |  |  |  |
| l | 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).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

|   |  |  |          |           | or s                         | section   | 1 30(n) | or tne                       | investn   | nent C  | ompany Act            | of 1940   |   |   |   |   |   |   |                                       |  |
|---|--|--|----------|-----------|------------------------------|---|---------|------------------------------|---|---|-----------------------|---|---|---|---|---|---|---|---------------------------------------|--|
| 1. Name and   |  | 2. Issuer Name and Ticker or Trading Symbol MKS INSTRUMENTS INC [ MKSI ] |          |           |                              |   |         |                              |   | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) |                       |   |   |   |   |   |   |   |                                       |  |
| BERTUCCI JOHN R   |  |  |          |           |                              | [   |         |                              |   |   |                       |   |   | X   | Direc   | ctor  |   | X 10%   | Owner                                 |  |
| (Last) (First) (Middle)                                       |  |  |          |           |                              | 3. Date of Earliest Transaction (Month/Day/Year) 04/27/2006 |         |                              |   |   |                       |   |   | X Officer (give title below)                    |   |   |   | belo  | er (specify<br>w)                     |  |
| 90 INDUSTRIAL WAY   |  |  |          |           |                              | 04/27/2000  |         |                              |   |   |                       |   |   | Executive Chairman                              |   |   |   |   |                                       |  |
| (Street) WILMINGTON MA 01887                                  |  |  |          |           | 4. If                        | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |         |                              |   |   |                       |   |   |   | 6. Individual or Joint/Group Filing (Check Applicable Line) |   |   |   |                                       |  |
| WILMINGTON MA 0100/   |  |  | 01007    |           |                              |   |         |                              |   |   |                       |   |   | X   | , ,   |   |   |   |                                       |  |
| (City)  | (State) (Zip)  |  |          |           |                              |   |         |                              |   |   |                       |   |   | Form filed by More than One Reporting<br>Person |   |   |   |   |                                       |  |
|   |  | Tab  | le I - N | on-Deriv  | ative                        | Sec   | uritie  | s Ac                         | quire   | d, Di   | sposed o              | f, or B   | enefic  | ially   | Owne  | ed  |   |   |                                       |  |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Date) |  |  |          |           | Execution Date,              |   |         | 3.<br>Transa<br>Code (<br>8) |   | 4. Securities Acquired (A) or<br>Disposed Of (D) (Instr. 3, 4 ar<br>5)  |                       |   | 5. Amount of Securities Beneficially Owned Following Reported |   | es<br>ally<br>Following                                     | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4)   |   | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)       |                                       |  |
|   |  |  |          |           |                              |   |         |                              | Code  | v   | Amount                | (A) or<br>(D)   | Price   | Ti  | ransact<br>nstr. 3 a  | ion(s)  |   |   | (IIISU. 4)                            |  |
| Common 04/27/20   |  |  |          |           | 006                          | 06  |         |                              | S   |   | 100,000               | D   | \$24.   | 28 4,11   |   | 1,580   | D |   |                                       |  |
| Common  |  |  |          |           |                              |   |         |                              |   |   |                       |   |   |   | 4   | 71  |   | I   | By Limited<br>Partnership             |  |
| Common  |  |  |          |           |                              |   |         |                              |   |   |                       |   |   |   | 4,246,784   |   | I |   | By Spouse                             |  |
|   |  | Ti   | able II  |           |                              |   |         |                              |   |   | osed of,<br>convertib |   |   |   | vned  |   |   |   |                                       |  |
| Derivative<br>Security<br>(Instr. 3)                          | 2. Conversion or Exercise Price of Derivative Security |  | if any   | ion Date, | 4.<br>Transa<br>Code (<br>8) |   |         |                              | 6. Date Exerc<br>Expiration D.<br>(Month/Day/\) |   | ate                   | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |   | Deriv<br>Secu                                   | Price of<br>erivative<br>ecurity<br>nstr. 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 | Beneficial<br>Ownership<br>(Instr. 4) |  |
|   |  |  |          |           | Code                         | v   | (A)     | (D)                          | Date<br>Exerci                                  | isable  | Expiration<br>Date    | Title   | Amount<br>or<br>Number<br>of<br>Shares                        |   |   |   |   |   |                                       |  |

**Explanation of Responses:** 

By: Joseph M.Tocci / POA

04/28/2006

\*\* 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.

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.