FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPROVAL | |
|--------------|--|
| | |

OMB Number: 3235-0287
Estimated average burden 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).

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

| Name and Address of Reporting Person* Quirk Brian Charles | | | | | 2. Issuer Name and Ticker or Trading Symbol MKS INSTRUMENTS INC [MKSI] | | | | | | | | | k all applical Director | ole) | Person(s) to Issue | | ner | |
|---|---|------------|--|--------------|--|-----------------------------|---|-------------------------------|--------|--------------------|--|------|--|--|---|--------------------|--|---------------------------------------|--|
| (Last) (First) (Middle) 2 TECH DRIVE, SUITE 201 | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 05/11/2017 | | | | | | | | | Officer (give title Other (spebelow) below) Sr. VP, Global Operations | | | | Jecny | |
| (Street) ANDOVER MA 01810 (City) (State) (Zip) | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Line) | Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (=-5) | | | able I - No | n-Deriva | tive 9 | Secu | rities Ac | nuired | Die | nosed (| of or Re | nef | icially (| Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date | | | | 2. Transac | action 2A. Deemed Execution Date, | | 3. 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4) | | | | |) or | 5. Amount Securities Beneficiall Owned Fo | у | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | | | | Code | v | Amount | (A) (D) | or | Price | Transactio (Instr. 3 an | | | " | 1150.4) | |
| Common Stock 05/1 | | | | | 1/2017 | | | М | | 3,557. | 874 <i>A</i> | | (1) | 19,120.819 | | D | | | |
| Common Stock 05/ | | | | 05/11/2 | 11/2017 | | | F ⁽²⁾ | | 1,56 | 5 I |) | \$80.5 | 17,555.819 | | D | | | |
| | | | Table II - | | | | ties Acq warrants | | | | | | | wned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | | 3A. Deemed Execution Dat if any (Month/Day/Ye | Code (Instr. | | Deri Seci Acq or D | umber of vative urities uired (A) isposed of Instr. 3, 4 5) | 6. Date Expiratio (Month/D | n Date | е | 7. Title and Amou Securities Under Derivative Securi (Instr. 3 and 4) | | erlying | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s | e s Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) | |
| | | | | Code | v | (A) | (D) | Date Exercisal | | Expiration Date | Title | | ount or nber of ares | | (Instr. 4) | (=, | | | |
| Restricted | (1) | 05/11/2017 | | M | | | 3,557.874 | (3) | T | (3) | Common | 3,5 | 57.874 | (1) | 13,330.3 | 302 | 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. This transaction was effected pursuant to a Rule 10b5-1 trading plan previously adopted by the reporting person.
- 3. These RSUs originally were scheduled to vest in two equal installments based on the Company's achievement of certain performance criteria for the period ending June 30, 2017 and June 30, 2018. On May 10, 2017, the Compensation Committee accelerated in full the vesting of these RSUs to May 11, 2017 as a result of the Company's 100% achievement of the performance criteria.

/s/ M. Kathryn Rickards, attorney-in-fact

** Signature of Reporting Person Date

05/12/2017

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.