

FORM 5

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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.

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Loomis Paul</u> (Last) (First) (Middle) <u>C/O 2 TECH DRIVE, SUITE 201</u> (Street) <u>ANDOVER MA 01810</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>MKS INSTRUMENTS INC [MKSI]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>VP & GM, Astex</u>
	3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) <u>12/31/2010</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	

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 at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
Common Stock	07/01/2010		M4	3,000	A	\$0 ⁽¹⁾	4,388	D	
Common Stock	07/01/2010		F4 ⁽²⁾	953	D	\$18.45	4,388	D	
Common Stock	08/30/2010		M4	706	A	\$0 ⁽¹⁾	4,388	D	
Common Stock	08/30/2010		F4 ⁽²⁾	226	D	\$17.5	4,388	D	

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 Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
					(A)	(D)	Date Exercisable	Expiration Date						Title
Restricted Stock Unit	(1)	07/01/2010		4M		3,000	(3)	(3)	Common Stock	3,000	(1)	13,225	D	
Restricted Stock Unit	(1)	08/30/2010		4M		706	(4)	(4)	Common Stock	706	(1)	0	D	

Explanation of Responses:

- Each restricted stock unit represents the contingent right to receive one share of common stock of MKS Instruments, Inc.
- This transaction was effected pursuant to a Rule 10b5-1 trading plan previously adopted by the reporting person.
- The RSUs fully vest three years from grant date.
- The RSUs fully vest 1 year from the grant date

/s/Renee M. Donlan POA 01/06/2011

** Signature of Reporting Person Date

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.