

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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).

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> <hr/> (Last) (First) (Middle) <u>C/O 2 TECH DRIVE, SUITE 201</u> <hr/> (Street) <u>ANDOVER MA 01810</u> <hr/> (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 Officer (give title below) Other (specify below) X VP & GM, Astex
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/25/2013</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 Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	02/25/2013		M		1,557.213	A	(1)	5,683.213	D	
Common Stock	02/25/2013		M		1,059	A	(1)	6,742.213	D	
Common Stock	02/25/2013		F		830 ⁽²⁾	D	\$26.92	5,912.213	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)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Restricted Stock Unit	(1)	02/25/2013		M			1,557.213	(3)	(3)	Common Stock	1,557.213	(1)	3,115.387	D	
Restricted Stock Unit	(1)	02/25/2013		M			1,059	(4)	(4)	Common Stock	1,059	(1)	3,027.897	D	
Restricted Stock Unit	(1)	02/25/2013		A			4,773.403	(4)	(4)	Common Stock	4,773.403	(1)	7,801.3	D	
Restricted Stock Unit	(1)	02/25/2013		A			7,160.104	(3)	(3)	Common Stock	7,160.104	(1)	10,275.491	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.
- These RSUs are subject to the achievement of performance criteria determined in the first year of the grant and thereafter vests in equal annual installments over three years.
- The RSUs vest in equal annual installments over three years

/s/Renee M. Donlan POA

02/26/2013

** 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.

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