

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

OMB APPROVAL	
OMB Number:	3235-0287
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1. Name and Address of Reporting Person* <u>Sweeney Joseph J</u> (Last) (First) (Middle) <u>C/O APPLIED MATERIALS, INC.</u> <u>P.O. BOX 58039, 3050 BOWERS AV, M/S 2023</u> (Street) <u>SANTA CLARA CA 95054</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>APPLIED MATERIALS INC /DE [AMAT]</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>Sr. VP, GC & Corp. Secretary</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>01/19/2010</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 Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	01/19/2010		A		125,000 ⁽¹⁾	A	\$0	381,381 ⁽²⁾	D	
Common Stock								12,100.698 ⁽³⁾	I	By the 401(k) Plan

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					

Explanation of Responses:

- Represents performance shares (restricted stock units) that will be converted on a one-for-one basis into shares of Applied Materials, Inc. common stock upon vesting. These performance shares will vest only after the satisfaction of specified performance goals. Provided such goals are achieved, vesting is scheduled to occur no earlier than in four equal annual installments beginning 12/19/10 (subject to continued employment through each vest date).
- Number of shares also includes 115,000 performance shares (restricted stock units) previously reported that in the future will be converted on a one-for-one basis into shares of Applied Materials, Inc. common stock upon vesting, which vesting is scheduled to occur as follows: (a) 50,000 performance shares are scheduled to vest on 12/19/10; (b) 35,000 performance shares are scheduled to vest in two equal annual installments beginning 12/19/10; and (c) provided specified performance goals are achieved, 30,000 performance shares are scheduled to vest (i) as to 22,500 shares no earlier than on 12/19/10 and (ii) as to 7,500 shares no earlier than on 12/19/11 (all vesting is subject to continued employment through each vest date).
- Increased number of shares reflects periodic payroll acquisitions under the 401(k) Plan that are exempt under Rule 16b-3.

/s/ Joseph J. Sweeney 01/21/2010
 ** 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.