

Sweeney Joseph J
 Form 4
 December 21, 2010

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287
 Expires: January 31, 2005
 Estimated average burden hours per response... 0.5

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Sweeney Joseph J

2. Issuer Name and Ticker or Trading Symbol
 APPLIED MATERIALS INC /DE [AMAT]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)
 Director 10% Owner
 Officer (give title below) Other (specify below)
 Sr. VP, GC & Corp. Secretary

(Last) (First) (Middle)
 C/O APPLIED MATERIALS, INC., P.O. BOX 58039, 3050 BOWERS AV, M/S 2023
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 12/19/2010

SANTA CLARA, CA 95054
 (City) (State) (Zip)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

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 Ownership (Instr. 4)
Common Stock	12/19/2010		F	(A) or (D) Code V Amount Price 39,974 (1) D \$ 13.61	411,806 (2)	D	
Common Stock					12,801.843 (3)	I	By the 401(k) Plan

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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number.

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 Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Owned Following Transaction (Instr. 5)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Sweeney Joseph J C/O APPLIED MATERIALS, INC. P.O. BOX 58039, 3050 BOWERS AV, M/S 2023 SANTA CLARA, CA 95054			Sr. VP, GC & Corp. Secretary	

Signatures

/s/ Charmaine Mesina,
Attorney-in-Fact
12/21/2010
Date

**Signature of Reporting Person

Explanation of Responses:

- * 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).
- (1) Represents shares that were automatically withheld upon vesting of performance shares (restricted stock units) to cover tax withholding obligations in a transaction exempt under Rule 16b-3.
Number of shares includes 304,375 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 will be scheduled to occur as follows: (a) 56,875 shares will be scheduled to vest in installments during each December of 2011 through 2013; and (b) provided specified performance goals are achieved, 247,500 shares will be scheduled to vest in installments during each December of 2011 through 2014 (all vesting will be subject to continued employment through each vest date).
- (3) Increased number of shares reflects dividend reinvestment under the 401(k) Plan that is exempt under Rule 16b-3.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.