

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

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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>Humiston Mary E</u> (Last) (First) (Middle) <u>C/O APPLIED MATERIALS, INC.</u> <u>P.O. BOX 58039, 3050 BOWERS AV, M/S</u> <u>2023</u> (Street) <u>SANTA CLARA</u> <u>CA</u> <u>95054</u> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>06/22/2009</u>	3. Issuer Name and Ticker or Trading Symbol <u>APPLIED MATERIALS INC /DE [AMAT]</u>	
		4. 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>Corp. VP, Global HR</u>	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
<u>Common Stock</u>	<u>70,000⁽¹⁾</u>	<u>D</u>	

Table II - Derivative Securities Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				
<u>Employee Stock Option (right to buy)</u>	<u>04/01/2010⁽²⁾</u>	<u>03/09/2014</u>	<u>Common Stock</u>	<u>45,000</u>	<u>8.58</u>	<u>D</u>

Explanation of Responses:

1. Number of shares consists of 70,000 performance shares (restricted stock units) 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 in four equal annual installments beginning 7/1/2009 and (b) 20,000 performance shares are scheduled to vest in four equal annual installments beginning 7/1/2010 (all vesting is subject to continued employment).

2. Shares become exercisable in three equal annual installments beginning on 4/1/2010 (subject to continued employment).

/s/ Mary E. Humiston06/24/2009

** 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 5 (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.