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

**POST-EFFECTIVE AMENDMENT NO. 3
TO
FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

APPLIED MATERIALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

94-1655526
(I.R.S. Employer
Identification No.)

3050 Bowers Avenue, P.O. Box 58039, Santa Clara, California 95052-8039
(Address of Principal Executive Offices) (Zip Code)

APPLIED MATERIALS, INC. EMPLOYEES' STOCK PURCHASE PLAN
(Full title of the plan)

Thomas F. Larkins
Senior Vice President, General Counsel and Corporate Secretary
Applied Materials, Inc.

3050 Bowers Avenue, P.O. Box 58039, Santa Clara, California 95052-8039
(Name and address of agent for service)

Telephone number, including area code, of agent for service: 1-408-727-5555

Copy to:

John E. Aguirre, Esq.
Wilson Sonsini Goodrich & Rosati, PC
650 Page Mill Road
Palo Alto, California 94304

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Securities Exchange Act of 1934:

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

EXPLANATORY STATEMENT – DEREGISTRATION OF A PORTION OF SHARES

Effective as of October 28, 2012, Applied Materials, Inc. (the “Registrant”) amended its Employees’ Stock Purchase Plan (the “Plan”) to decrease the number of shares of its common stock (“Shares”) that is available for issuance under the Plan by 15,000,000 Shares. Accordingly, the purpose of this Post-Effective Amendment No. 3 to the Registrant’s Registration Statement on Form S-8 (Commission File No. 333-143377), which was originally filed on May 30, 2007, amended by Post-Effective Amendment No. 1 thereto filed on July 27, 2009, and amended by Post-Effective Amendment No. 2 thereto filed on February 23, 2010 (the “Registration Statement”), is to reduce the number of Shares previously registered for issuance under the Plan pursuant to the Registration Statement (which number was 62,000,000) by 15,000,000 Shares that remain unsold. As a result, the Registration Statement now covers a maximum of 47,000,000 Shares.

Except to the extent specified above, the Registration Statement as previously filed is not amended or otherwise affected by this Post-Effective Amendment No. 3 thereto.

THE REGISTRANT

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Post-Effective Amendment No. 3 to Registration Statement on Form S-8 (Commission File No. 333-143377) to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Santa Clara, State of California on the 5th day of December, 2012.

APPLIED MATERIALS, INC.

(Registrant)

By /s/ Michael R. Splinter
Michael R. Splinter
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 3 to Registration Statement on Form S-8 (Commission File No. 333-143377) has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|------------------|
| Principal Executive Officer: | | |
| <u>/s/ Michael R. Splinter</u> Michael R. Splinter | Chief Executive Officer | December 5, 2012 |
| Principal Financial Officer: | | |
| <u>/s/ George S. Davis</u> George S. Davis | Executive Vice President, Chief Financial Officer | December 5, 2012 |
| Principal Accounting Officer: | | |
| <u>/s/ Thomas S. Timko</u> Thomas S. Timko | Corporate Vice President, Corporate Controller and Chief Accounting Officer | December 5, 2012 |

EXHIBIT INDEX

- 4.1 Applied Materials, Inc. Employees' Stock Purchase Plan, amended and restated effective October 28, 2012, incorporated by reference to Exhibit 10.54 to the Registrant's Form 10-K (file no. 000-06920) filed December 5, 2012.
- 24.1 Power of Attorney of Directors.

POWER OF ATTORNEY OF DIRECTORS

KNOW ALL PERSONS BY THESE PRESENTS:

Each of the undersigned directors of Applied Materials, Inc., a Delaware corporation (the "Company"), hereby constitutes and appoints Michael R. Splinter, George S. Davis and Joseph J. Sweeney and each of them with power to act alone, his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to execute a Post-Effective Amendment No. 3 to Registration Statement on Form S-8 (Commission File No. 333-143377) to deregister fifteen million shares of common stock of the Company that were previously registered under that Registration Statement for issuance under the Company's Employees' Stock Purchase Plan, as amended, and any and all additional amendments to such Registration Statement, including post-effective amendments, and to file the same, together with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes, as he or she might or could do in person, thereby ratifying and confirming all that said attorney-in-fact or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, we have hereunto set our hands this 3rd day of December, 2012.

/s/ Michael R. Splinter

Michael R. Splinter

/s/ Gerhard H. Parker

Gerhard H. Parker

/s/ Aart J. de Geus

Aart J. de Geus

/s/ Dennis D. Powell

Dennis D. Powell

/s/ Stephen R. Forrest

Stephen R. Forrest

/s/ Willem P. Roelandts

Willem P. Roelandts

/s/ Thomas J. Iannotti

Thomas J. Iannotti

/s/ James E. Rogers

James E. Rogers

/s/ Susan M. James

Susan M. James

/s/ Robert H. Swan

Robert H. Swan

/s/ Alexander A. Karsner

Alexander A. Karsner