UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 11, 2007

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction

000-06920 (Commission File Number) 94-1655526 (IRS Employer

of incorporation)

Identification No.)

3050 Bowers Avenue

P.O. Box 58039

Santa Clara, CA (Address of principal executive offices)

95052-8039

(Zip Code)

Registrant s telephone number, including area code: (408) 727-5555

N/A

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(d) On September 11, 2007, the Board of Directors (the Board) of Applied Materials, Inc. (Applied) appointed Dennis D. Powell to serve as a member of the Board, effective immediately. Mr. Powell has not been appointed to serve on any Board committee at this time.

Pursuant to the terms of Applied s Employee Stock Incentive Plan, Mr. Powell was automatically granted 20,000 performance shares (or restricted stock units) on September 11, 2007, the day of his appointment. These performance shares are scheduled to vest in four equal annual installments beginning one year after the grant date, subject to Mr. Powell s continued service as a director. Mr. Powell will also participate in the standard non-employee director compensation arrangements described in Applied s 2007 Proxy Statement that was filed with the Securities and Exchange Commission on February 14, 2007.

Item 7.01 Regulation FD Disclosure.

On September 12, 2007, Applied issued a press release announcing the appointment of Mr. Powell to the Board. A copy of the press release is attached hereto as Exhibit 99.1.

The information in this Item 7.01, including the exhibit, is furnished and shall not be deemed filed for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liabilities under that section, and shall not be deemed to be incorporated by reference into the filings of Applied under the Securities Act of 1933, as amended, regardless of any general incorporation language in such filings.

Item 8.01 Other Events.

On September 11, 2007, the Board approved Charles Y.S. Liu s request to step down as a member of the Audit Committee of the Board, effective immediately. Mr. Liu will continue to serve as Chair of the Investment Committee and as a member of the Strategy Committee.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. Description

99.1 Press Release issued by Applied Materials, Inc. dated September 12, 2007.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Applied Materials, Inc.

(Registrant)

Date: September 12, 2007 By: /s/ Joseph J. Sweeney

Joseph J. Sweeney

Senior Vice President, General Counsel and Corporate Secretary

EXHIBIT INDEX

Exhibit No. Description

99.1 Press Release issued by Applied Materials, Inc. dated September 12, 2007.