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): August 15, 2006

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction

0-06920 (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 Principal Officers; Election of Directors; Appointment of Principal Officers.

(b) Departure of a Principal Officer.

On August 15, 2006, Applied Materials, Inc. announced that Nancy H. Handel, Senior Vice President and Chief Financial Officer, will be retiring from the company, effective January 5, 2007.

A copy of the press release announcing the retirement of Ms. Handel is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No. Description

99.1 Press Release issued by Applied Materials, Inc. dated August 15, 2006.

SIGNATURE

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)

Dated: August 15, 2006

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 August 15, 2006.