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): March 23, 2005

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 0-6920 (Commission File Number) 94-1655526 (IRS Employer 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)

Dere-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-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.

On March 23, 2005, the Board of Directors of Applied Materials, Inc. ("Applied" or the "Company") designated Yvonne Weatherford, 54, as the Company's Principal Accounting Officer. Ms. Weatherford has been Applied's Corporate Vice President and Corporate Controller since December 2004. Since joining Applied's finance department in 1990, Ms. Weatherford has held various positions, including Vice President, Business Operations Controller from December 2001 to December 2004; Vice President, Financial Operations Controller from October 2000 to December 2001; and Vice President, Global Regional Operations and Support Controller from December 1999 to October 2000. Ms. Weatherford is a member of the Chartered Institute of Management Accountants.

Applied has not entered into an employment agreement with Ms. Weatherford.

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.

Dated: May 6, 2005.

Applied Materials, Inc. (Registrant)

By: /s/ Joseph J. Sweeney

Joseph J. Sweeney Group Vice President Legal Affairs and Intellectual Property and Corporate Secretary