
**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): July 31, 2009

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-06920
(Commission File Number)

94-165526
(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)
 - 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))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(b) On July 31, 2009, Charles Y.S. Liu notified the Board of Directors of Applied Materials, Inc. (the “Company”) of his decision to resign as a director of the Company, effective immediately, to devote more time to his expanding business ventures in China.

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)

Dated: August 5, 2009

By: /s/ Joseph J. Sweeney
Joseph J. Sweeney
Senior Vice President
General Counsel and Corporate Secretary