

**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 1, 2004

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

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 7.01 Regulation FD Disclosure.

On September 2, 2004, Applied Materials, Inc. (“Applied”) received notice that the arbitration panel in the second phase of the arbitration between Applied and Varian Semiconductor Equipment Associates, Inc. (“VSEA”) (previously disclosed in Applied’s SEC filings) found that Applied had not proven the invalidity of certain patent claims asserted by VSEA under a patent license agreement between Applied and VSEA dated January 1, 1992 (the “Agreement”). The parties have until October 1, 2004 to notify the panel whether or not a hearing on the amount of royalty payments owed by Applied to VSEA under the Agreement is necessary. Based on Applied’s current assessment of this matter, Applied expects that the amount of back royalty payments owed will not exceed \$30 million. In addition to back royalty payments, Applied will be required to make unit-based royalty payments on future sales of certain products found to be within the scope of the Agreement. Applied expects that these unit-based royalty payments will not have a material adverse effect on its financial condition or results of operations. For additional information concerning this arbitration, please refer to the “Legal Proceedings” section of Applied’s most recent SEC reports on Forms 10-Q and 10-K.

Forward-looking statements

This report contains certain forward-looking statements within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934, including statements relating to the amounts of back royalty payments and unit-based royalty payments that Applied will be required to make and their impact on Applied’s financial condition and results of operations. These forward-looking statements can be identified by the use of such words as “expects” and “will,” are based on management’s assessments as of the date hereof, and include the assumptions that underlie such assessments. These forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties include, but are not limited to, risks and uncertainties relating to Applied’s accurate assessment of the amounts of back royalty payments and unit-based royalty payments and their impact on Applied’s financial condition and results of operations. For more information regarding potential risks, see the “Trends, Risks and Uncertainties” section of Applied’s most recent SEC reports on Forms 10-Q and 10-K. Applied undertakes no obligation to update any forward-looking statements in this Form 8-K.

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)

Date: September 3, 2004

By: /s/ Joseph J. Sweeney

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