

**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): December 21, 2006

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

0-06920
(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)
- 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 December 21, 2006, Applied Materials, Inc. (“Applied”) received notification that the Irish Competition Authority (the “ICA”) has decided to carry out a Phase 2 investigation in relation to the proposed acquisition by Applied of certain assets of Brooks Software, a division of Brooks Automation, Inc. Applied intends to fully cooperate with the ICA in its continuing investigation. Closing of the proposed acquisition is subject to a number of conditions, including expiration of waiting periods under U.S. and applicable foreign antitrust laws.

The information furnished in this Form 8-K shall not be incorporated by reference into any filing of Applied, whether made before or after the date hereof, regardless of any general incorporation language in such filing, unless expressly incorporated by specific reference in such filing. The information in this report shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended.

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: December 21, 2006

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