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): January 31, 2008

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**000-06920**	**94-1655526**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

3050 Bowers Avenue **P.O. Box 58039** **Santa Clara, CA**	**95052-8039**
(Address of principal executive offices)	**(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 January 31, 2008, Applied Materials, Inc. (Applied) issued a press release announcing that it has completed its purchase of all of the outstanding shares of Baccini S.p.A., a privately-held company incorporated in Italy, pursuant to a Share Purchase Agreement dated November 18, 2007. The text of the press release is attached hereto as Exhibit 99.1.

The information in this Item 7.01, including the exhibit, is furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liabilities under that section, and shall not be deemed to be incorporated by reference into the filings of Applied under the Securities Act of 1933, as amended, regardless of any general incorporation language in such filings.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1	Press Release issued by Applied Materials, Inc. dated January 31, 2008.

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: January 31, 2008

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 January 31, 2008.

Exhibit 99.1

NEWS RELEASE

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Applied Materials Expands its Solar Cell Manufacturing Technologies with Acquisition of Baccini

SANTA CLARA, CA, January 31, 2008 – Applied Materials, Inc. today announced that it has acquired Baccini S.p.A., a leading supplier of automated metallization and test systems for manufacturing crystalline silicon (c-Si) photovoltaic (PV) cells. Under the terms of the agreement, Applied paid €225 million (or approximately US$334 million) in cash for all of the outstanding shares of Baccini.

“This acquisition is a key step in our goal to become the leading equipment supplier to the solar industry,” said Mike Splinter, president and CEO of Applied Materials. “With our broad portfolio of advanced solar cell manufacturing technologies, we plan to reduce the production costs for both crystalline silicon cell and thin film modules, while also decreasing the grams-per-watt usage of silicon material. As a result, we expect to help drive down the cost of solar electricity to be competitive with conventional electricity sources and to accelerate the rate of adoption of solar technology for commercial and residential applications.”

Baccini will be integrated within Applied’s Solar Business Group, headed by vice president Charles Gay. Applied’s portfolio of c-Si cell production technologies includes precision wafering, passivation layer deposition with its ATON™ system, automated wafer handling capabilities, and back-end-of-the-line processes such as metallization (screen printing), laser-based isolation, test and sorting.

This press release contains forward-looking statements relating to Applied Materials’ acquisition of Baccini and expected benefits of the transaction, and Applied’s solar strategy and product capabilities. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those stated or implied, including but not limited to: the successful integration and performance of the acquired business, including realization of backlog; the adequacy of internal controls and processes of the acquired business; demand for PV products, which is subject to many factors, including global economic and market conditions, demand for renewable energy, cost-effectiveness and performance, technological innovations, evolving industry standards, government policies relating to renewable energy, and the supply and cost of raw materials; the intellectual property rights of market participants; Applied’s ability to (i) develop, deliver and support a broad range of products and expand its markets and develop new markets, (ii) obtain and protect intellectual property rights in key technologies, (iii) commercialize products that enable increased PV efficiency and lower cost, (iv) manage its supply chain and production capability, and (v) recruit and retain key employees; and other risks described in Applied’s SEC filings. All forward-looking statements are based on management’s estimates, projections and assumptions as of January 31, 2008, and Applied undertakes no obligation to update any such statements.

Applied Materials, Inc. (Nasdaq: AMAT) is the global leader in Nanomanufacturing Technology™ solutions with a broad portfolio of innovative equipment, service and software products for the fabrication of semiconductor chips, flat panel displays, solar photovoltaic cells, flexible electronics and energy efficient glass. At Applied Materials, we apply Nanomanufacturing Technology to improve the way people live. Learn more at www.appliedmaterials.com. # # #