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): August 23, 2007

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 000-06920 (Commission File Number) 94-1655526 (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 7.01 Regulation FD Disclosure.

On August 23, 2007, Applied Materials, Inc. issued a press release announcing that it has completed its purchase of all of the outstanding shares of HCT Shaping Systems SA (HCT), a privately-held company incorporated in Switzerland, pursuant to a Share Purchase Agreement dated June 25, 2007. The text of the press release is attached hereto as Exhibit 99.1.

The information in this Form 8-K, including the exhibit, shall not be incorporated by reference into any filing of Applied Materials, Inc., 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.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

99.1 Press Release issued by Applied Materials, Inc. dated August 23, 2007.

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: August 23, 2007

By: /s/ Joseph J. Sweeney

Joseph J. Sweeney Senior Vice President, General Counsel and Corporate Secretary

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<u>Exhibit No.</u> 99.1 Description Press Release issued by Applied Materials, Inc. dated August 23, 2007.

APPLIED MATERIALS.

NEWS RELEASE

CONTACT: Betty Newboe (technical media) 408.563.0647 David Miller (business media) 408.563.9582 Randy Bane (financial community) 408.986.7977

Applied Materials Acquires HCT Shaping Systems to Expand Solar Manufacturing Solutions

SANTA CLARA, Calif., August 23, 2007 – Applied Materials, Inc. today announced that it has completed the acquisition of HCT Shaping Systems SA (HCT), the world's leading supplier of precision wafering systems for manufacturing crystalline silicon (c-Si) substrates for the solar industry. The acquisition expands Applied's portfolio of solutions for helping solar customers reduce the costs of manufacturing photovoltaic (PV) cells to make solar energy more competitive with grid electricity.

Under the terms of the agreement, originally announced on June 26, 2007, Applied paid approximately CHF 583 million (or approximately US\$483 million) in cash for all of the outstanding shares of HCT, a privately-held company based in Switzerland.

"This acquisition, combined with our strong production technology and global support infrastructure, will enable us to bring crystalline silicon solar manufacturing to a new level of efficiency and help drive down the cost-per-watt of solar power," said Mike Splinter, president and CEO of Applied Materials. "HCT's technology is critical to our roadmap since it complements our high-throughput deposition systems and will enable customers to scale up production and reduce costs."

HCT is now part of Applied's new Precision Wafering Systems division, operating under the Solar Business Group headed by Charles Gay. Stefan Schneeberger, who has been appointed vice president and general manager of the Precision Wafering Systems division, commented, "We are excited to be part of Applied Materials. Our roadmaps are aligned with the goal of bringing new and advanced manufacturing technologies to reduce the cost of solar energy. Together, we will help customers to continuously reduce the grams of silicon needed per watt, while significantly improving their productivity."

This press release contains forward-looking statements relating to Applied's acquisition of HCT and expected benefits of the transaction, and Applied's product capabilities and solar strategy. 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; broadening of demand for emerging applications such as solar, which is subject to many factors, including global economic and market conditions, the cost-effectiveness and performance of PV products compared to other energy sources, technological innovations, availability and cost of polysilicon, evolving industry standards, changing customer and end-user requirements, incentives for alternative energy development, and geopolitical uncertainties; Applied's ability to (i) accurately predict the characteristics of, and capitalize on opportunities in, the PV market, (ii) successfully adapt its existing products and develop and commercialize new products that enable increased solar cell efficiency and lower cost, (iii) recruit, incentivize and retain key employees, (iv) obtain and protect intellectual property rights in key technologies, (v) develop, deliver and support a broad range of products, and (vi) maintain effective cost controls and timely align its cost structure with business conditions; difficulties in production planning and execution; and other risks described in Applied's SEC filings. All forward-looking statements are based on management's estimates, projections and assumptions as of August 23, 2007, 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 <u>www.appliedmaterials.com</u>.