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 16, 2004

Applied Materials, Inc.

(Exact name of registrant as specified in its charter)

Commission File Number 0-6920

Delaware

94-1655526

(State or other jurisdiction of incorporation)

(IRS Employer Identification No.)

3050 Bowers Avenue P.O. Box 58039

Santa Clara, CA 95052-8039 (Address of principal executive offices including zip code)

(408) 727-5555 (Registrant's telephone number, including area code)

N/A

(Former name or former address, if changed since last report)

Item 7. Financial Statements, Pro Forma Financial Information and Exhibits.

- (c) Exhibits.
- 99.1 Press Release issued by Applied Materials, Inc. dated August 16, 2004.

Item 9. Regulation FD Disclosure.

On August 16, 2004, Applied Materials, Inc. (the Company) issued a press release, the text of which is attached hereto as Exhibit 99.1.

The information in this Current Report on Form 8-K, including the exhibit, is furnished pursuant to Item 9 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities under that Section. Furthermore, the information in this Current Report on Form 8-K, including the exhibit, shall not be deemed to be incorporated by reference into the filings of the Company under the Securities Act of 1933, as amended, regardless of any general incorporation language in such filings.

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.

Date: August 16, 2004

Applied Materials, Inc. (Registrant)

By: /s/ Joseph J. Sweeney

Joseph J. Sweeney Group Vice President Legal Affairs and Intellectual Property and Corporate Secretary
 Exhibit No.
 Description

 99.1*
 Press Release issued by Applied Materials, Inc. dated August 16, 2004.

* Also provided in PDF format as a courtesy.

Release: Contact:

Betty Newboe (technical media) 408/563-0647

Immediate

Jeff Lettes (business media) 408/563-5161 Paul Bowman (financial community) 408/563-1698

Applied Materials to Acquire the Worldwide Business of Metron Technology

SANTA CLARA, Calif., August 16, 2004 — Applied Materials, Inc. announced today that it has entered into a definitive agreement to acquire the operating subsidiaries and businesses of Metron Technology N.V., which provide a wide range of outsource solutions to the semiconductor industry. The acquisition will expand Applied Materials' current portfolio of service products to support chip manufacturers worldwide and will provide important synergies that leverage the operational, financial and logistical strengths of the two companies.

Under terms of the agreement, Applied Materials will pay approximately \$85 million for all outstanding shares and equity equivalents of Metron's worldwide operating subsidiaries and substantially all of its other assets, and will assume certain Metron liabilities. The acquisition, which is subject to regulatory and Metron shareholder approval and other closing conditions, is expected to close in Applied Materials' fourth fiscal quarter.

Metron Technology is a global organization with over 30 offices and several operating facilities in the U.S., Europe, Israel and Asia. Metron's outsource solutions to fabs worldwide include supply of parts and materials, equipment maintenance, kitting and cleaning of process parts, refurbishment of legacy equipment, and distribution of specialty products.

"The acquisition of Metron is another significant step in the expansion of our service solutions that we offer to customers, and a key element of Applied Materials' growth," said Mike Splinter, president and CEO of Applied Materials. "Complementing our recent transactions with Brooks Automation, Praxair Electronics and Phoenix Silicon International, this acquisition represents an important milestone in an ongoing series of strategic moves to service a larger market and expand our support capabilities beyond Applied Materials' tools."

"Combining Metron's experienced service-oriented organization with Applied Materials' strong service offerings and global reach brings additional, world-class capabilities to customers and demonstrates our strong commitment to enabling their success," added Russell Ellwanger, group vice president and general manager of Applied Global Services.

The Metron businesses will be an integral part of Applied Global Services and will develop and market products for Applied Materials' growing fab services program, including support of non-Applied Materials systems.

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"We welcome our new relationship with Applied Materials and the opportunity to offer customers outsource solutions as part of Applied's world-class organization," said Ed Segal, chairman and CEO of Metron Technology. "By combining the complementary service offerings of Applied Materials and Metron, we believe we can enhance our value to customers and continue to develop the products and services that enable their success."

This press release contains forward-looking statements relating to expected benefits from the acquisition of Metron's businesses and subsidiaries, Applied Materials' growth opportunities, and all other statements that are not historical facts. These forward-looking statements include the assumptions that underlie such statements and 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 possible inability to complete the acquisition as anticipated or at all; potential regulatory conditions to the acquisition; the successful integration and performance of the acquired businesses; sustainability of demand in the semiconductor and semiconductor equipment industries, which is subject to many factors, including global economic conditions, demand for electronic products and semiconductors, and geopolitical uncertainties; Applied Materials' ability to successfully supply a broad range of equipment and service products and to support non-Applied Materials' systems; retention of key employees of Metron; and other risks described in Applied Materials' SEC filings. All forward-looking statements are based on management's estimates, projections and assumptions as of the date hereof and Applied Materials assumes no obligation to update this press release.

Metron Technology N.V. (Nasdaq: MTCH) is a leading global provider of outsourced marketing, sales, service and support solutions to the semiconductor industry. Metron Technology's web site is <u>www.metrontech.com</u>.

Applied Materials, Inc. (Nasdaq: AMAT) is the largest supplier of products and services to the global semiconductor industry. Applied Materials' web site is www.appliedmaterials.com.

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