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): 02/13/2008

KLA-TENCOR CORPORATION

(Exact name of registrant as specified in its charter)

Commission File Number: 000-09992

Delaware

(State or other jurisdiction of incorporation)

04-2564110 (IRS Employer Identification No.)

One Technology Drive, Milpitas, California 95035 (Address of principal executive offices, including zip code)

(408) 875-3000

(Registrant's telephone number, including area code)

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 8.01. Other Events

On February 13, 2008, the Company issued a news release that the Company's Board of Directors had declared a cash dividend of \$0.15 per share on its common stock. Such dividend shall be payable on March 3, 2008 to stockholders of record as of the close of business on February 25, 2008. A copy of the news release is attached hereto as Exhibit 99.1.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

The following exhibit is filed herewith:

Exhibit

Number Description

99.1 Text of news release issued by the Company dated February 13, 2008

Signature(s)

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.

KLA-TENCOR CORPORATION

Date: February 19, 2008

By: /s/ Jeffrey L. Hall

Jeffrey L. Hall Chief Financial Officer

Exhibit Index

Exhibit No.	Description
EX-99.1	Text of news release issued by the Company dated February 13, 2008

NEWS RELEASE

Company Contacts: Jeffrey Hall

Chief Financial Officer

(408) 875-6800

Jeff.Hall@kla-tencor.com

Meggan Powers (Media)

Sr. Director, Corporate Communications

(408) 875-9037

Meggan.Powers@kla-tencor.com

FOR IMMEDIATE RELEASE

KLA-TENCOR DECLARES REGULAR CASH DIVIDEND FOR

THIRD QUARTER FISCAL YEAR 2008

SAN JOSE, Calif., February 13, 2008--KLA-Tencor Corporation (NASDAQ: KLAC) today announced that its Board of Directors has declared a quarterly cash dividend of \$0.15 per share on its common stock payable on March 3, 2008 to KLA-Tencor stockholders of record on February 25, 2008.

About KLA-Tencor: KLA-Tencor is the world leader in yield management and process control solutions for semiconductor manufacturing and related industries. Headquartered in San Jose, Calif., the company has sales and service offices around the world. An S&P 500 company, KLA-Tencor is traded on the NASDAQ Global Select Market under the symbol KLAC. Additional information about the company is available on the Internet at http://www.kla-tencor.com.