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): 11/13/2008

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 2.05. Costs Associated with Exit or Disposal Activities

On November 18, 2008, KLA-Tencor Corporation (the "Company"), in response to current market conditions, announced a plan to reduce its global workforce by approximately 15 percent by June 30, 2009. This reduction is one of many cost-reduction actions the Company is taking in an effort to lower the Company's quarterly operating expense run rate to approximately \$165-170 million by the end of fiscal year 2009 in response to the current demand environment.

The Company currently estimates that, in connection with the workforce reduction, it will incur an initial charge in the range of approximately \$15 million to \$20 million, almost all of which is related to estimated severance costs associated with the workforce reduction. Substantially all of that charge will result in future cash expenditures, which the Company believes will be paid out in fiscal year 2009. The Company anticipates incurring additional restructuring charges, severance costs and other related expenses in connection with the workforce reduction at least through the remainder of fiscal year 2009 but is unable to estimate the aggregate amount of such additional charges at this time.

A copy of the press release issued by the Company on November 18, 2008 announcing the planned workforce reduction is attached hereto as Exhibit 99.1 and incorporated herein by reference.

Statements in this press release other than historical facts, such as statements regarding the anticipated size of the Company's reduction in its workforce, the expected timing of the implementation of such reduction, the estimated costs associated with such reduction, the anticipated benefits that such reduction will have on the Company's operating results and competitive position, and the Company's expected level of operating expenses in future periods, are forward-looking statements, and are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current information and expectations, and involve a number of risks and uncertainties. Actual results may differ materially from those projected in such statements due to various factors, including but not limited to those associated with costs and delays related to compliance with U.S. and international labor and other laws, including notification procedures required thereby; future developments in the semiconductor industry, capital markets and the global economy; the effectiveness of the Company's other efforts to reduce its operating expenses; demand for the Company's products; the results of the Company's product development efforts; disruption from the workforce reduction and its potential impact on research and development efforts and Company relationships with customers and vendors; the introduction of new products by the Company's competitors; acceptance of the Company's products by its customers; and other similar factors. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this release, please refer to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2008, subsequently filed Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein). The Company cannot

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

(e) The Company's employees, including its executive officers, are generally eligible to participate in the Company's Employee Stock Purchase Plan ("ESPP"). Historically, the Company's ESPP offered employees a 24-month offering period with exercise periods every six months. The purchase price was 85% of the lesser of (i) the fair market value of the Company's common stock ("FMV") at the commencement of the offering period (which could be as much as 24 months prior to the purchase date) or (ii) the FMV on the purchase date (typically, June 30 or December 31) (commonly referred to as a "look-back").

On November 13, 2008, the Company's Board of Directors, as permitted by Section 4 of the ESPP plan document and as part of the Company's ongoing efforts to reduce operating expenses, authorized the Company to reduce each offering period under the ESPP (and therefore the look-back period) from 24 months to six months. This change will be effective January 1, 2009, such that each offering period beginning on or after such date will have a duration of six months, and the purchase price with respect to each such offering period will be 85% of the lesser of (i) the FMV at the commencement of the six-month offering period or (ii) the FMV on the purchase date.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

The following exhibit is filed herewith:

Exhibit No. Description

99.1 Text of news release issued by KLA-Tencor Corporation dated November 18, 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: November 18, 2008

By: /s/ Brian M. Martin

Brian M. Martin Senior Vice President and General Counsel

Exhibit Index

Exhibit No. Description EX-99.1 Text of news release issued by KLA-Tencor Corporation dated November 18, 2008

FOR IMMEDIATE RELEASE

Investor Relations: Ed Lockwood Sr. Director, Investor Relations (408) 875-9529 ed.lockwood@kla-tencor.com

Media Relations: Meggan Powers Sr. Director, Corporate Communications (408) 875-8733 meggan.powers@kla-tencor.com

KLA-TENCOR ANNOUNCES GLOBAL REDUCTION IN FORCE

MILPITAS, Calif.-Nov. 18, 2008-KLA-Tencor Corporation (NASDAQ: KLAC) announced today that, in response to current market conditions, the company plans to reduce its global workforce by approximately 15 percent by June 30, 2009. This reduction is one of many cost-reduction actions the company is taking in an effort to lower the company's quarterly operating expense run rate to approximately \$165-170 million by the end of fiscal year 2009 in response to the current demand environment.

"Our employees are the heart of our organization, so it is with considerable reluctance that we are proceeding with this necessary reduction," said Rick Wallace, chief executive officer of KLA-Tencor. "We will continue to monitor the demand environment and make the necessary adjustments to weather this downturn, help optimize our profitability, maintain our strategic focus and strengthen our competitive position."

KLA-Tencor currently estimates that, in connection with the workforce reduction, it will incur an initial charge in the range of approximately \$15 million to \$20 million, almost all of which is related to estimated severance costs associated with the workforce reduction. Substantially all of that charge will result in future cash expenditures, which KLA-Tencor believes will be paid out in fiscal year 2009. KLA-Tencor anticipates incurring additional restructuring charges, severance costs and other related expenses in connection with the workforce reduction at least through the remainder of fiscal year 2009 but is unable to estimate the aggregate amount of such additional charges at this time.

Forward Looking Statements:

Statements in this press release other than historical facts, such as statements regarding the anticipated size of KLA-Tencor's reduction in its workforce, the expected timing of the implementation of such reduction, the estimated costs associated with such reduction, the anticipated benefits that such reduction will have on the company's operating results and competitive position, and the company's expected level of operating expenses in future periods, are forward-looking statements, and are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current information and expectations, and involve a number of risks and uncertainties. Actual results may differ materially from those projected in such statements due to various factors, including but not limited to those associated with costs and delays related to compliance with U.S. and international labor and other laws, including notification procedures required thereby; future developments in the semiconductor industry, capital markets and the global economy; the effectiveness of the company's other efforts to reduce its operating expenses; demand for the company's products; the results of the company's product development efforts: disruption from the workforce reduction and its potential impact on research and development efforts and company relationships with customers and vendors; the introduction of new products by the company's competitors; acceptance of the company's products by its customers; and other similar factors. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this release, please refer to KLA-Tencor's Annual Report on Form 10-K for the fiscal year ended June 30, 2008, subsequently filed Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein). KLA-Tencor cannot provide any assurance that its future results will meet expectations, and the company disclaims any obligation to update information contained in any forward-looking statement.

About KLA-Tencor:

KLA-Tencor Corporation is the world's leading supplier of process control and yield management solutions for the semiconductor and related nanoelectronics industries. Headquartered in Milpitas, California, 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 at *http://www.kla-tencor.com*. (KLAC-C)