

APPLIED SIGNAL TECHNOLOGY INC  
Form 8-K  
March 19, 2007

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: March 14, 2007  
(Date of earliest event reported)

Applied Signal Technology, Inc.  
(Exact name of registrant as specified in its charter)

California  
(State or other jurisdiction of  
incorporation or organization)

000-21236  
(Commission File No.)

77-0015491  
(I.R.S. Employer  
Identification No.)

400 West California Ave., Sunnyvale, CA 94086  
(Address of principal executive offices)

(408) 749-1888  
(Registrant's telephone number, including area code)

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 (see General Instruction A.2. below):

- 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 1.01: Entry into a Material Definitive Agreement

On March 14, 2007, the shareholders of Applied Signal Technology, Inc. ("Applied Signal" or the "Company"), approved an amendment to the Company's 1993 Employee Stock Purchase Plan (the "Purchase Plan") to increase by 600,000 the maximum number of shares of Common Stock that may be issued under the Purchase Plan.

The Company's shareholders have previously approved the reservation of 4,300,000 shares of the Company's Common Stock (subject to adjustment upon certain changes in the capital structure of the Company) for issuance to employees under the Purchase Plan.

#### Signatures

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: March 19, 2007

**Applied Signal Corporation**

/s/ James E. Doyle

**James E. Doyle**

By: **Vice President and Chief Financial Officer**