Van Vleet III William B Form 4 September 24, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB APPROVAL

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January 31, Expires: 2005

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if no longer subject to Section 16. Form 4 or Form 5

Check this box

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, obligations Section 17(a) of the Public Utility Holding Company Act of 1935 or Section may continue. 30(h) of the Investment Company Act of 1940 See Instruction

1(b).

(Print or Type Responses)

1. Name and Address of Reporting Person * 5. Relationship of Reporting Person(s) to 2. Issuer Name and Ticker or Trading Van Vleet III William B Issuer Symbol APPLIED SIGNAL (Check all applicable) TECHNOLOGY INC [APSG] (Last) (First) (Middle) 3. Date of Earliest Transaction _X__ Director 10% Owner X_ Officer (give title Other (specify (Month/Day/Year) below) 400 W. CALIFORNIA AVE 09/22/2010 President & CEO (Street) 4. If Amendment, Date Original 6. Individual or Joint/Group Filing(Check Filed(Month/Day/Year) Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting SUNNYVALE, CA 94086 Person

(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 1.Title of 2. Transaction Date 2A. Deemed 3. 4. Securities Acquired 5. Amount of 6. Ownership 7. Nature of Security (Month/Day/Year) Execution Date, if Transaction(A) or Disposed of Securities Form: Direct Indirect (Instr. 3) Code (D) Beneficially (D) or Beneficial Indirect (I) Ownership (Month/Day/Year) (Instr. 8) (Instr. 3, 4 and 5) Owned Following (Instr. 4) (Instr. 4) Reported (A) Transaction(s) or (Instr. 3 and 4) Code V Amount (D) Price Common 09/22/2010 A 54,000 Α \$0 111,279 D Stock

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

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	2.	3. Transaction Date		4.	5.	6. Date Exerc		7. Titl		8. Price of	9. Nu
Derivative Security (Instr. 3)	Conversion or Exercise Price of Derivative Security	(Month/Day/Year)	Execution Date, if any (Month/Day/Year)	Transact Code (Instr. 8)	orNumber of Derivativ Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	:		Amou Under Securi (Instr.	lying	Derivative Security (Instr. 5)	Deriv Secur Bene Own Follo Repo Trans (Instr
				Code V	(A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares		

Reporting Owners

Reporting Owner Name / Address	Relationships						
F	Director	10% Owner	Officer	Other			
Van Vleet III William B 400 W. CALIFORNIA AVE SUNNYVALE, CA 94086	X		President & CEO				

Signatures

William B. Van
Vleet III

**Signature of Reporting Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

Reporting Owners 2