FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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| STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP | OME |

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| | OMB APPROVAL | | | | | | | | | | | |
|---|--------------------------|-----------|--|--|--|--|--|--|--|--|--|--|
| | OMB Number: | 3235-0287 | | | | | | | | | | |
| l | Estimated average burden | | | | | | | | | | | |
| l | hours per response: | 0.5 | | | | | | | | | | |

| 1. Name and Address of Reporting Person* <u>Halterman Craig M</u> | | | | | | 2. Issuer Name and Ticker or Trading Symbol AXCELIS TECHNOLOGIES INC [ACLS] | | | | | | | | | Check all a | ector | ng Pei | 10% C | wner |
|---|--|--|---------------|---|-------|---|---|------------|--|--------------------------------------|---|---|-------|--|---|--|--|---|---|
| (Last) (First) (Middle) 108 CHERRY HILL DRIVE | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 07/01/2005 | | | | | | | | | | Officer (give title below) Senior V | | Other (spec below) P and CIO | |
| (Street) BEVERI (City) | | | 01915 Zip) | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | ine) X Fo Fo | al or Joint/Group Filing (Check Applicable form filed by One Reporting Person filed by More than One Reporting ferson | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| | | | | Date (Month/Day/Year) i | | ar) E | 2A. Deemed Execution Date, if any (Month/Day/Year) | | Code (| Transaction Disposed Code (Instr. 5) | | ities Acquired (A) d Of (D) (Instr. 3, 4 | | | nd Sec Ben Owr | mount of urities eficially ed Following | Forr (D) (| 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | | | | | Code | v | Amount | (| A) or D) | Price | Trar | Reported Transaction(s) (Instr. 3 and 4) | | | (111501.4) | |
| Common Stock | | | | 07/01/2005 | | | | A | | 40,72 | 9 A | | \$0 |) ⁽¹⁾ 44,165.3 | | | D | | |
| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | | | Date, | 4. Transaction Code (Instr. 8) | | | ative rities ired sed . 3, 4 | Expiration | e Exercisable and ation Date h/Day/Year) Expiration Date Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instrand 4) Amoun or Numbo of Title Shares | | ount | 8. Price of Derivative Security (Instr. 5) | | , | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |

Explanation of Responses:

1. These shares are issuable on restricted stock units granted under the Company's 2000 Stock Plan. 1/3 of the shares will issue upon vesting on each of July 1, 2007, 2008 and 2009, provided the reporting person is employed by Axcelis Technologies, Inc. on those dates. No voting or other stockholder rights attach to the units until the shares are issued.

<u>Lynnette C. Fallon, as attorney-</u> <u>in-fact for Craig M. Halterman</u>

** Signature of Reporting Person Date

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

- * 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.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.