JENNINGS WILLIAM C

Form 4

August 27, 2010

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB 3235-0287

OMB APPROVAL

Number:

January 31, Expires: 2005

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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. See Instruction

30(h) of the Investment Company Act of 1940

1(b).

(Print or Type Responses)

08/13/2010

Stock

1. Name and Address of Reporting Person * 5. Relationship of Reporting Person(s) to 2. Issuer Name and Ticker or Trading JENNINGS WILLIAM C Issuer Symbol **AXCELIS TECHNOLOGIES INC** (Check all applicable) [ACLS] (Last) (First) (Middle) 3. Date of Earliest Transaction X_ Director 10% Owner Officer (give title Other (specify (Month/Day/Year) below) C/O AXCELIS TECHNOLOGIES. 08/13/2010 INC., 108 CHERRY HILL DRIVE (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 BEVERLY, MA 01915 (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 (A) 5. Amount of 6. 7. Nature of Security (Month/Day/Year) Execution Date, if Transactionr Disposed of (D) Securities Ownership Indirect (Instr. 3) Code (Instr. 3, 4 and 5) Beneficially Form: Beneficial (Month/Day/Year) Direct (D) (Instr. 8) Owned Ownership or Indirect **Following** (Instr. 4) Reported (A) Transaction(s) (Instr. 4) or (Instr. 3 and 4) Code V (D) Amount Price Common

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

P

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67,185

1.5982

D

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

10,000

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1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. onNumber of Derivative Securities Acquired (A) or Disposed of (D)		ate	7. Title a Amount of Underlying Securities (Instr. 3 a	of ng s	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Owne Follo Repo Trans (Instr
				Code V	(Instr. 3, 4, and 5) (A) (D)	Date Exercisable	Expiration Date	or Title Nu of	umber		

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

JENNINGS WILLIAM C C/O AXCELIS TECHNOLOGIES, INC. 108 CHERRY HILL DRIVE BEVERLY, MA 01915

X

Signatures

Lynnette C. Fallon, as attoney in fact for William C. Jennings

08/27/2010

**Signature of Reporting Person

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.

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