FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | IN BENEFICIAL | . OWNERSHIP |
|-----------|------------|---------------|-------------|
|           |            |               |             |

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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

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

| 1. Name and Address of Reporting Person* <u>KURTZWEIL JOHN T</u>   |  |              |                               |          |   | 2. Issuer Name and Ticker or Trading Symbol AXCELIS TECHNOLOGIES INC [ ACLS ] |  |       |   |                |                        |   |   | k all ap  | plicable)  | · · · · ·      | Person(s) to Issuer<br>10% Owner |  |
|--|--|--------------|-------------------------------|----------|---|---|--|-------|---|----------------|------------------------|---|---|---|--|----------------|----------------------------------|--|
|  |  | HNOLOGIES, I | Middle)                       |          |   | 3. Date of Earliest Transaction (Month/Day/Year) 11/15/2017                   |  |       |   |                |                        |   |   | Offic<br>belo   | er (give title<br>w)   |                | Other (specify below)            |  |
| 108 CHERRY HILL DRIVE  (Street)  |  |              |                               | 4. If    | 4. If Amendment, Date of Original Filed (Month/Day/Year)                  |   |  |       |   |                |                        | Line)   | Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person |   |  |                |                                  |  |
| BEVERI   | Y M.   | Α (          | )1915                         |          |   |   |  |       |   |                |                        |   |   |   |  | n filed by Mor | re than One Rep                  |  |
| (City)   | (St  | ate) (       | Zip)                          |          |   |   |  |       |   |                |                        |   |   |   |  |                |                                  |  |
|  |  | Tabl         | e I - No                      | on-Deriv | ative   | Sec   | uritie   | s Ac  | quirec  | l, Dis         | sposed o               | f, or E   | 3ene1   | icially   | Own  | ed             |                                  |  |
| 1. Title of Security (Instr. 3)  2. Transacti Date (Month/Day  |  |              |                               |          | Execution Date,   |   | 3. Transaction Code (Instr. 8) 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 1)        |       |   | Secur<br>Benef | icially<br>d Following | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)                                 |   |  |                |                                  |  |
|  |  |              |                               |          |   |   | Code   | v     | Amount  | (A) or (D)     |                        | ice   | Trans   | action(s)<br>3 and 4)   |  | (11134114)     |                                  |  |
| Common Stock 11/15/20  |  |              | 2017                          | 017      |   | S <sup>(1)</sup>  |  | 1,800 | 1,800 D \$34  |                | 34.03(2)               | 26,498 <sup>(3)</sup>   |   | D   |  |                |                                  |  |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |              |                               |          |   |   |  |       |   |                |                        |   |   |   |  |                |                                  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | Derivative Security Price of Derivative Security |              | 4.<br>Transa<br>Code (1<br>8) |          | Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |   | 6. Date Exercisable and Expiration Date (Month/Day/Year)  Date Expiration Date Expiration Date |       | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4)  Amount or Number of Shares |                | r. 3                   | Price of<br>rivative<br>curity<br>str. 5)                         | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)   | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |                |                                  |  |

## **Explanation of Responses:**

- 1. This sale of 1,800 shares was made to cover the tax liability incident to the vesting of 3,802 shares on November 17, 2017 under restricted stock units granted to the director on May 17, 2017.
- 2. The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$34.00 to \$34.05, inclusive. The reporting person undertakes to provide to Axcelis Technologies, Inc., any security holder of Axcelis Technologies, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each
- 3. Of the shares held as of November 15, 2017, 9,427 were issuable on vesting of restricted stock units granted under the 2012 Equity Incentive Plan and are subject to forfeiture.

## Remarks:

<u>Lynnette C. Fallon, as attorney</u> in fact for John T. Kurtzweil

\*\* Signature of Reporting Person Date

11/15/2017

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.