FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

n, D.C. 20549 OMB APPROVAL

| o | MB Number:         | 3235-0287 |
|---|--------------------|-----------|
| E | stimated average b | ourden    |
| h | ours 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

|  |   |  |  | OI   | Section   | on 30(n) ( | of the            | investmer  | t Co   | mpany Act            | of 1940  |   |   |   |   |  |                                       |
|--|---|--|--|--|---|------------|-------------------|--|--------|----------------------|--|---|---|---|---|--|---------------------------------------|
| 1. Name and Address of Reporting Person*  RECTOR DAVID |   |  |  | 2. Issuer Name and Ticker or Trading Symbol SENESCO TECHNOLOGIES INC [ SNT ] |   |            |                   |  |        |                      |  | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) |   |   |   |  |                                       |
|  |   |  |  |  |   |            |                   |  |        |                      | 1  | X Directo   | or  |   | 10% Ow  | ner  |                                       |
| (Last) 303 GEO SUITE 4                                 | RGE STR   | •  | (Middle)   |  | 3. Date of Earliest Transaction (Month/Day/Year) 12/16/2004 |            |                   |  |        |                      |  | Officer (give title Other (spe below)                                   |   |   |   | pecify   |                                       |
|  |   |  |  | 4.   | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |            |                   |  |        |                      |  | 6. Individual or Joint/Group Filing (Check Applicable                   |   |   |   |  |                                       |
| (Street)   |   |  |  |  |   |            |                   |  |        |                      |  | Lin   | ,   | iled by One F   | Conortina   | a Doroon   |                                       |
| NEW<br>BRUNS   | WICK N  | IJ   | 08901  |  |   |            |                   |  |        |                      |  |   |   | iled by More  |   |  |                                       |
| (City)   | (5  | State)                                     | (Zip)  |  |   |            |                   |  |        |                      |  |   | 1 01001   | •   |   |  |                                       |
| (,)  |   | •  |  |  |   |            |                   |  |        |                      |  |   |   |   |   |  |                                       |
|  |   | Tak  | ole I - Non-De   | erivativ   | e Se  | curities   | s Ac              | quired,  | Dis    | posed o              | f, or Be   | neficia   | ly Owned  | <u> </u>  |   |  |                                       |
| Date   |   |  | ransaction<br>e<br>onth/Day/Y                            | Execution Date   |   |            | Code (Instr.   5) |  |        |                      | Beneficia<br>Owned F   | es F<br>ally (<br>Following (   | 6. Owners<br>Form: Dir<br>D) or Ind<br>I) (Instr. 4 | rect c<br>lirect E<br>4) C  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |  |                                       |
|  |   |  |  |  |   |            |                   | v  | Amount | (A) o<br>(D)         | Price  | Reported<br>Transact<br>(Instr. 3                                       | ion(s)  |   |   | Instr. 4)  |                                       |
|  |   |  | Table II - Der<br>(e.g                                   |  |   |            |                   |  |        | osed of,<br>onvertil |  |   | Owned   |   |   |  |                                       |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)    | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date<br>if any<br>(Month/Day/Yea | Code (Instr  |   |            |                   | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |        |                      | 7. Title and Amoun<br>of Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |   | Derivative<br>Security                              | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ow<br>For<br>Dire<br>or I<br>(I) (                  | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | Beneficial<br>Ownership<br>(Instr. 4) |
|  |   |  |  | Code   | v   | (A)        | (D)               | Date<br>Exercisab  |        | Expiration<br>Date   | Title  | Amount<br>or<br>Number<br>of<br>Shares                                  |   |   |   |  |                                       |
| Common<br>Stock<br>Options <sup>(1)</sup>              | \$3.45  | 12/16/2004                                 |  | A  |   | 25,000     |                   | 12/16/200  | 4      | 12/16/2014           | Common<br>Stock  | 25,000  | \$0   | 60,000  |   | D  |                                       |

## **Explanation of Responses:**

1. Such options were granted to Mr. Rector pursuant to the Company's 1998 Stock Incentive Plan, as amended, with one-half of such options vesting on the date of grant and one-half of such options vesting on December 16, 2006.

David Rector

12/20/2004

\*\* Signature of Reporting Person

Date

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

- $^{\star}$  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.