

Isabelle Warren John
 Form 4
 May 27, 2010

FORM 4

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

OMB APPROVAL

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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

(Print or Type Responses)

1. Name and Address of Reporting Person *
 Isabelle Warren John

2. Issuer Name and Ticker or Trading Symbol
 SENESCO TECHNOLOGIES INC
 [SNT]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
 303 GEORGE STREET, SUITE 420
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 05/25/2010

Director 10% Owner
 Officer (give title below) Other (specify below)

NEW BRUNSWICK, NJ 08901

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | Code | V Amount or (D) Price | | | |
| Common Stock | 05/25/2010 | | A | (1) 3,470 \$ 0.3673 | 22,437 | D | |
| Common Stock | 05/25/2010 | | A | (2) 1,487 \$ 0.5135 | 23,924 | D | |
| Common Stock | 05/25/2010 | | C | (3) 77,840 \$ 0.83 | 101,764 | D | |

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

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number.

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) | 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. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|
| Convertible Debenture Due 12/31/2010 | \$ 0.83 | 05/25/2010 | | M | \$ 64,607 | 02/19/2010 12/31/2010 | Common Stock 77,84 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| Isabelle Warren John 303 GEORGE STREET SUITE 420 NEW BRUNSWICK, NJ 08901 | X | | | |

Signatures

Warren J. Isabelle
05/27/2010

**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).
- (1) Such shares of common stock were issued in lieu of paying cash for interest for the period from 1/1/10 through 3/31/10 on the Company's 8% convertible notes held by Mr. Isabelle.
 - (2) Such shares of common stock were issued in lieu of paying cash for interest for the period from 4/1/10 through 5/24/10 on the Company's 8% convertible notes held by Mr. Isabelle.
 - (3) Such shares of common stock were issued in connection with the conversion of \$64,607 of the Company's 8% convertible notes, at a conversion rate of \$0.83, held by Mr. Isabelle.

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.