

Arensdorf John R.
Form 4
February 23, 2011

FORM 4

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

OMB APPROVAL

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

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 *
Arensdorf John R.

(Last) (First) (Middle)
5400 WESTHEIMER COURT
(Street)

HOUSTON, TX 77056

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
Spectra Energy Corp. [SE]

3. Date of Earliest Transaction
(Month/Day/Year)
02/21/2011

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

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

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

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) | |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|------------------|
| | | | | (A) or (D) | Price | | | |
| Common Stock | 02/21/2011 | | M | V | 4,160 | \$ 26.25 | 21,945 | D ⁽¹⁾ |
| Common Stock | 02/21/2011 | | F | | 1,101 | \$ 26.25 | 20,844 | D ⁽¹⁾ |
| Common Stock | | | | | | | 192 | I By Wife |

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) | Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|----------------------------|
| Performance Shares Grant Feb 2008 | (2) | 02/21/2011 | | M | 4,160 (5) | 02/26/2011(4) | Common Stock | 4,160 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|------------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Arensdorf John R. 5400 WESTHEIMER COURT HOUSTON, TX 77056 | | | Chief Communications Officer | |

Signatures

/s/ Emily L. Strait as Attorney-in-Fact for Ms. Ables
Date: 02/23/2011

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) Includes 10,304 held by Trustee, Retirement Savings Plan.
- (2) Converts to Common Stock on a 1-for-1 basis
- (3) Expiration date not applicable.
- (4) Grant Cliff vests 3 years from date of Grant.
- (5) Performance award is greater than original target.

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.