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FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| 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

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

| OMB APPROVAL | | | | | | | | | |
|-------------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | | |
| Estimated average burde | en | | | | | | | | |
| hours per response: | 0.5 | | | | | | | | |

| 1. Name and Address of Reporting Person [*] Jones Stephen J | | on* | 2. Issuer Name and Ticker or Trading Symbol <u>AIR PRODUCTS & CHEMICALS INC</u> <u>/DE/</u> [APD] | | tionship of Reporting Per (all applicable) Director Officer (give title below) | rson(s) to Issuer 10% Owner Other (specify below) |
|---|----------|--|---|-------------------|---|--|
| (Last) (First) 7201 HAMILTON BOULEVARD | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 10/01/2012 | | Sr. V.P. | , | |
| (Street) | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indiv Line) | vidual or Joint/Group Filin | g (Check Applicable |
| ALLENTOWN | PA | 18195 | | X | Form filed by One Rep | orting Person |
| (City) | (State) | (Zip) | - | | Form filed by More tha Person | n One Reporting |

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. 4. Securities Acquired (A) Transaction Disposed Of (D) (Instr. 3, Code (Instr. 8) | | | | 5. Amount of Securities Beneficially Owned Following Reported | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
|---------------------------------|--|---|--|---|-----------------------------|---------------|---|---|---|--------------------------------------|--|
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (1130.4) | |
| Common Stock | 10/01/2012 | | F | | 986 | D | \$82.85 | 23,303 | D | | |
| Common Stock | 10/02/2012(1) | | J | | 79.48 | A | \$0.0000 ⁽²⁾ | 1,588.32 | Ι | By RSP ⁽³⁾ | |
| Common Stock | 10/02/2012(1) | | J | | 0.583 ⁽⁴⁾ | A | \$0.0000 ⁽²⁾ | 122.181 | Ι | By Spouse ⁽⁵⁾ | |
| Common Stock | 10/02/2012(1) | | J | | 8.95 | A | \$0.0000 ⁽²⁾ | 336.26 | I | By Spouse's RSP ⁽³⁾ | |

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

| | (3-,,,,, | | | | | | | | | | | | | | |
|---|---|--|---|------------------------------|---|------|-----|--|---|-------|---|--|--|--|--|
| 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. Transa Code (8) | | of E | | 6. Date Exerc Expiration Da (Month/Day/Y | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | Code | v | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |

Explanation of Responses:

1. Transactions not required to be reported since last filing.

2. Not applicable to this security

3. Shares represented by units of interest in the Company Stock Fund held under the issuer's Retirement Savings Plan.

4. Shares acquired with cash dividends under the issuer's Dividend Reinvestment and Direct Stock Purchase and Sale Plan.

5. Shares owned by spouse as to which the reporting person disclaims beneficial ownership.

Linda M. Svoboda as Attorney 10/02

10/02/2012

** Signature of Reporting Person Date

in Fact

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.