FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | S IN BENEFICIA | L OWNERSHIP |
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OMB APPROVAL 3235-0287 Estimated average burden

0.5

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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).

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* SMITH LAWRENCE S | | | | <u> </u> | 2. Issuer Name and Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC /DE/ [APD] | | | | | | | | | | all applica Director | able) | g Perso | on(s) to Issu 10% Ow | % Owner |
|--|--|--|---|---|---|--|-----------------|---------------|---|---------------|---|--------|---|---|---|---|--|---------------------------------------|---------|
| (Last) (First) (Middle) 7201 HAMILTON BOULEVARD | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/22/2009 | | | | | | | | | | Officer (give title below) | | Other (sp below) | | pecify | |
| (Street) | TOWN P | OWN PA 18195 | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting | | | | | |
| (City) | (\$ | State) | (Zip) | | | | | | | | | | Person | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| Date | | | . Transactio Date Month/Day/ | Execution Date, | | te, | Code (Instr. 5) | | | | | | i Iy | Form: | Direct I Indirect E str. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | | |
| | | | | | | | Code | v | Amount | (A) or (D) | Price | 1 | Transactio (Instr. 3 a | | | | (IIISU. 4) | | |
| | 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/Ye | Code | action (Instr. | of E | | Expir | . Date Exercisable and xpiration Date Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Securit (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | e S Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) | |
| | | | | Code | v | (A) | (D) | Date Exerc | cisable | Ex Da | piration te | Title | Amoun or Numbe of Shares | | | | | | |
| Phantom Stock | \$0 ⁽¹⁾ | 01/22/2009 | | A | | 1,927 | | 08/08 | 3/1988 ⁽²⁾ | 08 | /08/1988 ⁽²⁾ | Common | 1,927 | | \$0 | 14,208.5 | 339 | D | |

Explanation of Responses:

- 1. Not applicable to this security
- 2. These units are payable in the form of shares of common Stock equal in number to the units, at the time elected by the reporting person, which is generally after service on the issuer's Board of Directors ends. Units may be paid in a lump sum or up to ten installments as elected by the reporting person in advance.

Remarks:

Linda M. Svoboda as Attorney

in Fact

** Signature of Reporting Person Date

01/23/2009

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.