FORM 4

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

Washington, D.C. 20549

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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

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

| Name and Address of Reporting Person*  FORD W DOUGLAS                            |   |  |   |   |   | 2. Issuer Name <b>and</b> Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC /DE/                     |  |  |                    |                           |  |                                  | ationship of I<br>k all applicat   |  | Person | . ,  |  |
|--|---|--|---|---|---|--|--|--|--------------------|---------------------------|--|----------------------------------|--|--|--------|--|--|
| (Last) (First) (Middle)  |   |  |   |   | _ [ APD ]   |  |  |  |                    |                           |  |                                  | Director<br>Officer (g<br>below)   | jive title   |        | 10% Owr<br>Other (sp<br>below)   |  |
| 7201 HAMILTON BOULEVARD  |   |  |   |   | 3. Date of Earliest Transaction (Month/Day/Year) 06/30/2009   |  |  |  |                    |                           |  |                                  |  |  |        |  |  |
| (Street) ALLENTOWN PA 18195  |   |  |   |   | 4. If Amendment, Date of Original Filed (Month/Day/Year)  |  |  |  |                    |                           |  | - 1                              | Individual or Joint/Group Filing (Check Applicable Line)     X 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 |   |  |   |   |   |  |  |  |                    |                           |  |                                  |  |  |        |  |  |
| Date   |   |  |   | 2. Transa<br>Date<br>Month/D            |   | Execution if any   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year |  | action<br>(Instr.  |                           |  |                                  | and 5) Securities<br>Beneficially<br>Following   |  | Form:  | : Direct Ir<br>Indirect B<br>str. 4) C                                   | . Nature of<br>ndirect<br>Beneficial<br>Ownership                  |
|  |   |  |   |   |   |  |  |  | v                  | Amount                    | (A) or<br>(D)  | Price                            | Reported<br>Transaction<br>(Instr. 3 and   |  |        |  | nstr. 4)   |
|  |   |  |   |   | ative Securities Acquired, Disposed of, or Beneficially Owned puts, calls, warrants, options, convertible securities) |  |  |  |                    |                           |  |                                  |  |  |        |  |  |
| 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/Year) | 4.<br>Transaction<br>Code (Instr.<br>8) |   | 5. Number of<br>Derivative<br>Securities<br>Acquired (A)<br>or Disposed<br>of (D) (Instr. 3,<br>4 and 5) |  | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    |                           | 7. Title and Amount of<br>Securities Underlying<br>Derivative Security<br>(Instr. 3 and 4) |                                  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5)  | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s) |        | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |   |  |   | Code                                    | v   | (A)  |  | Date<br>Exercisab  |                    | Expiration<br>Date        | Title  | Amount or<br>Number of<br>Shares |  | (Instr. 4)   |        |  |  |
| Phantom<br>Stock <sup>(1)</sup>  | \$0 <sup>(2)</sup>  | 06/30/2009                                 |   | A                                       |   | 466.0748   |  | 08/08/198  | 8 <sup>(3)</sup> 0 | 08/08/1988 <sup>(3)</sup> | Common<br>Stock  | 466.0748                         | \$64.845   | 16,516.  | .3557  | D  |  |

#### **Explanation of Responses:**

- 1. Phantom deferred stock units (Units) acquired under the Air Products Stock Account of the issuer's Deferred Compensation Program for Directors, of the Company's Long-Term Incentive Plan (the Plan).
- 2. Not applicable to this security
- 3. 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

06/30/2009

in Fact

\*\* Signature of Reporting Person

Date

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.

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