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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 |
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| | 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 | | | | | | | | | |
|------------------------|-----------|--|--|--|--|--|--|--|--|
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| Estimated average burd | en | | | | | | | | |
| hours per response: | 0.5 | | | | | | | | |

| 1. Name and Address of Reporting Dixon Robert D | g Person [*] | 2. Issuer Name and Ticker or Trading Symbol <u>AIR PRODUCTS & CHEMICALS INC</u> <u>/DE/</u> [APD] | | ionship of Reporting Pers all applicable) Director Officer (give title | 10% Owner Other (specify |
|--|-----------------------|---|-------------------------|---|-----------------------------|
| (Last) (First) (Middle) 7201 HAMILTON BOULEVARD | | 3. Date of Earliest Transaction (Month/Day/Year) 10/28/2011 | | below) Sr.V.P. and G | below) .M. |
| (Street) ALLENTOWN PA 18195 (City) (State) (Zip) | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indivi Line) X | dual or Joint/Group Filing Form filed by One Repo Form filed by More than Person | orting 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) | any Transaction Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | |
|---------------------------------|--|---|---|---|--------|---|---|---|---|------------|
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (Instr. 4) |
| Common Stock | 10/28/2011 | | S | | 10,761 | D | \$88.7393 ⁽¹⁾ | 15,461.014 | D | |
| Common Stock | | | | | | | | 4,115.13 | Ι | By RSP |

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. Transa Code (8) | | 5. Nur of Deriv Secur Acqu (A) or Dispo of (D) (Instr and 5 | ative rities ired osed | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | ion Date Amount of /Day/Year) Securities Underlying Derivative | | On Date Day/Year) Amount of Securities Derivative Security derivative Security Day/Year) Securities Securities Underlying Derivative Security (Instr. 3 and 4) (Instr. 5) Beneficially Owned Following Reported | | derivative Securities Beneficially Owned Following Reported Transaction(s) | 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. Actual sale prices ranged from \$88.52 to \$88.8510

Linda M. Svoboda as Attorney <u>11/01/2011</u>

<u>in Fact</u>

** 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.

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.