FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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| OIVIB APP | 3235-028 | | | | | |
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| OMB Number: | 3235-028 | | | | | |
| Estimated average t | ourden | | | | | |

0.5

hours per response:

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

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* DAVIS WILLIAM L | | | | | 2. Issuer Name and Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC | | | | | | | | | Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner | | | | | | |
| | | | | | <u>/DE/</u> [APD] | | | | | | | | | | | Officer (give title | | Other (s | pecify | |
| (Last) (First) (Middle) | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/28/2010 | | | | | | | | | below) | | | below) | | | |
| 7201 HAMILTON BOULEVARD | | | | | | | | | | | | | | | | | | | | |
| (Street) | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | | |
| ` ' | TOWN F | PA . | 18195 | | | | | | | | | | | X | Form fil | ed by One | Repo | rting Persor | า | |
| | | | | | | | | | | | | | | Form filed by More than One Reporting Person | | | | | | |
| (City) | (: | State) | (Zip) | | | | | | | | | | | | | | | | | |
| | | Та | ble I - Non | n-Deriva | tive S | ecuriti | es A | cqu | uired, C | Disp | osed of | , or Ben | eficia | lly | Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | | Execution Date, | | · | Transaction Disposed Of Code (Instr. 5) | | es Acquired (A) o Of (D) (Instr. 3, 4 a | | Securities Beneficia Owned Fe | | s For lly (D) ollowing (I) (| | : Direct Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership | | | |
| | | | | | | | Î | Code | v | Amount | (A) or (D) | | • | Reported Transaction(s) (Instr. 3 and 4) | | | | (Instr. 4) | | |
| | | | Table II - I | | | | | | | | sed of, o | | | | wned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Da if any (Month/Day/\(^1\) | Code (Instr. | | | | 6. Date Exercisabl Expiration Date (Month/Day/Year) | | e and | 7. Title and Amount of Securities Underlying Derivative Sec (Instr. 3 and 4) | | | 8. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficial Owned Following Reported Transactio (Instr. 4) | e s Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownershi (Instr. 4) | | |
| | | | | Cod | le V | (A) | | Date Exer | e rcisable | Ex | piration te | Title | Amou or Numb of Share | nber | | | | | | |
| Phantom Stock | \$0 ⁽¹⁾ | 01/28/2010 | | A | | 1,299 | П | 08/0 | 8/1988 ⁽²⁾ | 08/ | /08/1988 ⁽²⁾ | Common Stock | 1,29 | 9 | \$77.04 | 9,718.7 | '32 | 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

01/29/2010

<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.