Instruction 1(b)

FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL								
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Filed purs	uant to	Section	16(a)	of the	Securitie	s Exc	hange	Act of 2	1934
. or	Section	30(h) (of thè Ír	vestm	ent Com	nanv	Act of :	1940	

			or Section So(n) of the investment Company Act of 1940			
1. Name and Address of Reporting Person* HAGENLOCKER EDWARD E (Last) (First) (Middle)			2. Issuer Name and Ticker or Trading Symbol <u>AIR PRODUCTS & CHEMICALS INC /DE/</u> [APD] 3. Date of Earliest Transaction (Month/Day/Year)		ationship of Reporting Per k all applicable) Director Officer (give title below)	son(s) to Issuer 10% Owner Other (specify below)
7201 HAMILTON BOULEVARD)	09/30/2010			
(Street) ALLENTOWN (City)	PA 18195 (State) (Zip)		4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indi Line) X	vidual or Joint/Group Filin Form filed by One Rep Form filed by More tha	
		Table I - Non-Deriv	vative Securities Acquired, Disposed of, or Benefic	ially (Owned	

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)			4. Securities Acquired (A) or 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 (Instr. 4)
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(1130.4)

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/Year)	4. Transa Code (8)		Derivativ Securitie Acquired or Dispos of (D) (Instance)	Derivative Expiration Date		ation Date of Securities		8. Price of Derivative Security (Instr. 5) Beneficially Owned Following Reported Transaction(s)		Ownership Form: Direct (D)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares		(Instr. 4)		
Phantom Stock ⁽¹⁾	\$0.0000 ⁽²⁾	09/30/2010		A		55.6506		08/08/1988 ⁽³⁾	08/08/1988 ⁽³⁾	Common Stock	55.6506	\$83.97	9,592.3463	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.

> Linda M. Svoboda as Attorney 09/30/2010 in Fact

Date

** Signature of Reporting Person

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.