AIR PRODUCTS & CHEMICALS INC /DE/ Form S-8 March 17, 2011

As filed with the Securities and Exchange Commission on March 17, 2011

Registration	No.
Registration	NO.

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-8 REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

AIR PRODUCTS AND CHEMICALS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

23-1274455

(I.R.S. Employer Identification No.)

7201 Hamilton Boulevard, Allentown, Pennsylvania 18195-1501

(Address of Principal Executive Offices) (Zip Code)

Air Products and Chemicals, Inc. Long-Term Incentive Plan

(Full Title of the Plan)

Mary T. Afflerbach, Corporate Secretary and Chief Governance Officer

Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195-1501

(Name and Address of Agent for Service)

610-481-4911

(Telephone Number, Including Area Code, of Agent for Service)

CALCULATION OF REGISTRATION FEE

Titles of securities		Proposed maximum	Proposed maximum	
to be registered	Amount to be registered	offering price per share	aggregate offering price	Amount of registration fee
Common Stock, par value \$1	346,248	\$88.49	\$30,639,485.52	\$3,557.24(1)
Options Granted, 12/01/10	932,026	\$86.39	\$80,517,726.14	\$9,348.11(2)
-	1,278,274		\$111,157,211.66	\$12,905.35

⁽¹⁾ The registration fee with respect to these shares has been computed in accordance with paragraphs (c) and (h) of Rule 457, based upon the average of the reported high and low sales prices of shares of Common Stock on 10 March 2011 (i.e., \$88.49 per share).

⁽²⁾ The registration fee with respect to these shares has been computed in accordance with paragraph (h) of Rule 457 based upon the stated exercise price of the Options.

Air Products and Chemicals, Inc. (the Company), by the filing of this Registration Statement, hereby registers additional shares of common stock of the Company, for distribution pursuant to the Long-Term Incentive Plan (the Plan). These are securities of the same class as the securities registered on Form S-8, Registration Statement No. 333-103809 for distribution pursuant to the Plan. Accordingly, the contents of Registration Statement No. 333-103809 are incorporated herein by reference. The Company s report on Form 10-K for the year ended 30 September 2010 and the Form 10-Q for the period ended 31 December 2010 are also incorporated herein by reference.

EXHIBITS

- 23. Consent of Independent Registered Public Accounting Firm
- 24. Power of Attorney.

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SIGNATURES

The Registrant. Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Allentown, Commonwealth of Pennsylvania, on this 17th day of March 2011.

AIR PRODUCTS AND CHEMICALS, INC. (Registrant)

By: /s/ Mary T. Afflerbach Mary T. Afflerbach*

Corporate Secretary and Chief Governance Officer

* Mary T. Afflerbach, Corporate Secretary and Chief Governance Officer, by signing her name hereto, signs this registration statement on behalf of the registrant and, for each of the persons indicated by asterisk on pages 3 and 4 hereof, pursuant to a power of attorney duly executed by such persons which is filed with the Securities and Exchange Commission herewith.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Title	Date
/s/ John E. McGlade	Director, Chairman of the Board, President and	17 March 2011
John E. McGlade	Chief Executive Officer (Principal Executive Officer)	
/s/ Paul E. Huck Paul E. Huck	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	17 March 2011
/s/ M. Scott Crocco M. Scott Crocco	Vice President and Corporate Controller	17 March 2011
	(Principal Accounting Officer)	
* Mario L. Baeza	Director	17 March 2011
* William L. Davis, III	Director	17 March 2011
* Chadwick C. Deaton	Director	17 March 2011
* Michael J. Donahue	Director	17 March 2011
* Ursula O. Fairbairn	Director	17 March 2011
* W. Douglas Ford	Director	17 March 2011

Signature	Title	Date
* Edward E. Hagenlocker	Director	17 March 2011
* Evert Henkes	Director	17 March 2011
* Margaret G. McGlynn	Director	17 March 2011
* Lawrence S. Smith	Director	17 March 2011

EXHIBIT INDEX

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24. Power of Attorney

No opinion of counsel is being filed because the Common Stock to be distributed in connection with the Plan will consist exclusively of previously issued shares that are presently held by the registrant as treasury shares and will not constitute original issuance shares; further, no opinion is being furnished with respect to ERISA compliance because the Plan covered by the registration statement is not subject to the requirements of ERISA.