

Air Products and Chemicals, Inc.

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Paul E. HuckSr. Vice President and
Chief Financial Officer

20 April 2011

Ms. Cecilia Blye Chief, Office of Global Security Risk Securities and Exchange Commission Division of Corporate Finance 100 F Street, N.E. Washington, DC 20549

Re: Air Products and Chemicals, Inc.

Form 10-K for the Fiscal Year Ended September 30, 2010

Dear Ms. Blye:

In response to your letter of 8 April 2011, we provide the information below. The comment contained in your letter has been included in bold face type for reference during your review. Capitalized terms have the meanings ascribed to them in the Company's Form 10-K.

Comment

Please refer to comment 3 in our letter dated March 15, 2011. Tell us the dollar amount of revenue you derived from your direct and indirect sales to Syria in each of 2008 and 2009, and the dollar amount of any assets and liabilities associated with that country during each of fiscal 2008, 2009, and 2010. In addition, please discuss the reasons you do not believe your business with Syria is material based on qualitative factors. Include discussion of the reasons you do not believe that your relationship with PetroChina, a company that has been the object of divestment and related efforts due to its parent company's operations in Sudan and Iran, will have a material impact on your reputation and share value.

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Response:

The Company and its subsidiaries (the "Company") do not have any employees or physical operations or investments in Syria. Certain of the Company's non-U.S. subsidiaries had a very small amount of sales into Syria in 2008, 2009, and 2010. The table below sets forth annual sales into Syria. These sales were less than one hundredth of a percent of the Company's revenues during those years.

Year	Sales Into Syria	% of Company's Revenue
<u>Year</u> 2008	\$ 102,249	.0010%
2009	\$ 124,764	.0015%
2010	\$ 515,291	.0057%

The Company has no physical assets in Syria. The Company's only assets and liabilities associated with Syria are receivables, which stood as follows at the fiscal year end indicated:

Year	Receivables
<u>Year</u> 2008	\$ 5,941
2009	\$ (17,394)
2010	\$232.742

To the best of the Company's knowledge, information, and belief, the sales reflected in the first table were made in compliance with U.S. laws and none of the products sold were manufactured in the U.S. The products sold are used for medical purposes and the manufacture of polyurethane foam and epoxy paints. None of the sales were to the government of Syria or, to the knowledge of the Company, to entities controlled by it. The Company did not have any agreements or commercial arrangements or, to the knowledge of the Company, contacts with the government of Syria or any entities controlled by that government. In addition, the Company does not have any interest in any Syrian company.

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We believe these sales are highly unlikely to give rise to any adverse investor reaction because of the extremely limited extent of those activities and the nature of the customers involved. From a qualitative perspective, we also believe the sales into Syria to be immaterial. The Company's investor relations department has not received any inquiries or questions from investors or analysts regarding sales into Syria.

The Company does not believe that its relationship with PetroChina Company Ltd. ("PetroChina") will have a material impact on its reputation or share value. The Company's relationship is with a subsidiary of PetroChina which operates exclusively in Sichuan, China and is partly owned by the Sichuan municipal government. Although the Company is aware that PetroChina itself has been the object of divestment campaigns based on the operations of its majority shareholder, China National Petroleum Company, in Sudan and Iran, these campaigns targeted mutual funds or other entities that invested in PetroChina. The Company is not aware of any divestment efforts targeting companies that are only engaged in commercial relationships with PetroChina's subsidiaries. Moreover, none of the Company's investors or analysts have expressed concern to the Company regarding its relationships with PetroChina based on the activities of China National Petroleum Company.

In connection with this response, management acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in their filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Securities and Exchange Commission from taking any action with respect to the filing; and

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• the Company may not assert staff comments as a defense in any proceedings initiated by the Securities and Exchange Commission or any person under the federal securities laws of the United States.

Should the staff require any additional information, please contact me at 610-481-7932.

Yours truly,

/s/ Paul E. Huck

Paul E. Huck Sr. Vice President and Chief Financial Officer

c: Pradip Bhaumik Special Counsel, Office of Global Security Risk Securities and Exchange Commission