



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

April 8, 2011

Paul E. Huck  
Senior Vice President and Chief Financial Officer  
Air Products and Chemicals, Inc.  
7201 Hamilton Boulevard  
Allentown, Pennsylvania 18195-1501

**Re: Air Products and Chemicals, Inc.  
Form 10-K for the Fiscal Year Ended September 30, 2010  
Filed November 23, 2010  
File No. 1-04534  
Response Letter Dated March 28, 2011**

Dear Mr. Huck:

We have reviewed your response letter and have the following comment.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

General

1. 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.

Please contact Pradip Bhaumik, Special Counsel, at (202) 551-3333 or me at (202) 551-

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3470 if you have any questions about the comment or our review.

Sincerely,

Cecilia Blye, Chief  
Office of Global Security Risk

cc: Pamela Long  
Assistant Director  
Division of Corporation Finance