



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

Mail Stop 4631

February 18, 2010

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

**RE: Form 10-K for the year ended September 30, 2009
Form 10-Q for the period ended December 31, 2009
File No. 1-4534**

Dear Mr. Huck:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

If you have any further questions regarding our review of your filings, please direct them to Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, to the undersigned at (202) 551-3689.

Sincerely,

John Hartz
Senior Assistant Chief Accountant