



DIVISION OF  
CORPORATION FINANCE

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

April 11, 2024

Melissa N. Schaeffer  
Senior Vice President and Chief Financial Officer  
Air Products & Chemicals, Inc.  
1940 Air Products Boulevard  
Allentown, Pennsylvania 18106-5500

**Re: Air Products & Chemicals, Inc.**  
**Form 10-K for Fiscal Year Ended September 30, 2023**  
**Response Letter Dated April 8, 2024**  
**File No. 001-04534**

Dear Melissa N. Schaeffer:

We have reviewed your April 8, 2024 response to our comment letter and have the following comment.

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

After reviewing your response to this letter, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our March 13, 2023 letter.

Form 10-K for Fiscal Year Ended September 30, 2023

5. Acquisitions, page 73

1. We note your response to our prior comment, including the expanded disclosures you intend to provide in future filings. Please further expand these disclosures to include your conclusion that the repurchase price with consideration of time value of money exceeds the original purchase price, as discussed in the first paragraph on page 3 of your response letter, as this analysis forms the basis of your accounting for these transactions. Please ensure that your disclosures include consideration of the allocation of the contractual cash inflows to be received from UNG on a monthly basis between the repurchase price and compensation for your services provided under the agreements for purposes of this analysis, if correct.

Melissa N. Schaeffer  
Air Products & Chemicals, Inc.  
April 11, 2024  
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Please contact Tracey Houser at 202-551-3736 or Nudrat Salik at 202-551-3692 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Division of Corporation Finance  
Office of Industrial Applications and  
Services