March 30, 2022

Melissa Schaeffer Senior Vice President and Chief Financial Officer AIR PRODUCTS & CHEMICALS INC /DE/ 1940 Air Products Boulevard Allentown, Pennsylvania 18106

Re: AIR PRODUCTS &

CHEMICALS INC /DE/

Form 10-K for the

Year Ended September 30, 2021

Form 10-Q for the

Period Ended December 31, 2021

File No. 001-04534

Dear Ms. Schaeffer:

 $\label{eq:weakly} \text{We have limited our review of your filing to the financial statements and related}$ 

disclosures and have the following comments. In some of our comments, we may ask you to

provide us with information so we may better understand your disclosure.

Please respond to these comments 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 our

comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-Q for the Period Ended December 31, 2021

Note 6. Equity Affiliates

Equity Affiliate Investment in Jazan Integrated Gasification and Power Company (JIGPC), page 13

1. In regards to your initial investment of \$1.6 billion in the Jazan Integrated Gasification and Power Company, which was made primarily in the form of shareholder loans and represents a 55% interest in the joint venture, please address the following:

Given your disclosures indicate that the investment was primarily made in the form of loans, please help us understand how you determined that the equity method would be appropriate pursuant to ASC 323-10-15-3;

Please provide us with a summary of your significant rights and obligations under the joint venture agreement and correspondingly explain how you determined you have

influence under ASC 323; and

Please tell us how

significant

much of the \$1.6 billion was in the form of loans. If the entire Melissa Schaeffer

AIR PRODUCTS & CHEMICALS INC /DE/

March 30, 2022

Page 2

\$1.6 billion was not in the form of loans, please tell us the remaining components of

the investment and corresponding amounts.

In closing, we remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Nudrat Salik at (202) 551-3692 or Al Pavot at (202) 551-3728 with any questions.

FirstName LastNameMelissa Schaeffer Sincerely, Comapany NameAIR PRODUCTS & CHEMICALS INC /DE/

March 30, 2022 Page 2 FirstName LastName Division of Corporation Finance Office of Life Sciences