

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

August 30, 2010

Via Facsimile (212) 403-2000 and U.S. Mail

Robert H. Young, Jr.
Senior Vice President, General Counsel and Secretary
Airgas, Inc.
259 North Radnor-Chester Rd.
Radnor, PA 19087-5283

Re: Airgas, Inc.

Definitive Additional Soliciting Materials on Schedule 14A

Filed August 27, 2010

File No. 1-09344

Dear Mr. Young:

We have the following comment. Please respond to this letter by amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to this comment, we may have additional comments.

General

1. We note the statement issued on August 27 in response to Air Products' assertions that the company was communicating with stockholders and promising a potential sale or auction of the company in exchange for voting against Air Products' January 2011 annual meeting by-law. With a view toward revised disclosure, supplementally clarify for us whether the company has engaged in such negotiations, the topics discussed, and whether any voting agreements have been reached between the company and any stockholder or group of stockholders who own 5% or more of the company's shares. We may have further comment.

* * *

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the filing persons are in possession of all facts relating to

Mr. Robert Young, Jr. Airgas, Inc. August 30, 2010 Page 2

their disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comment, please provide, in writing, a statement from the filing persons acknowledging that:

- the filing persons are responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the filing persons may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

You may contact me at (202) 551-3757 if you have any questions regarding our comment.

Sincerely,

Mellissa Campbell Duru Special Counsel Office of Mergers and Acquisitions

Cc: David Katz, Esq. (via facsimile) Wachtell, Lipton, Rosen & Katz