



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

Mail Stop 7010

January 13, 2009

Via U.S. mail and facsimile

Mr. Robert McLaughlin
Chief Financial Officer
Airgas, Inc.
259 North Radnor-Chester Road; Suite 100
Radnor, PA 19087-5283

**RE: Form 10-K for the fiscal year ended March 31, 2008
Form 10-Q for the period ended September 30, 2008
File No. 001-09344**

Dear Mr. McLaughlin:

We have reviewed your filings and have the following comments. If you disagree with a comment, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-K FOR THE YEAR ENDED MARCH 31, 2008

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings, including your interim filings.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Gross Profits, page 27

2. Your presentation of gross profit appears to represent a non-GAAP measure since it excludes certain items such as depreciation expense. Refer to SAB Topic 11:B. Please revise your filing to either remove your discussion of this measure or revise to identify gross profit as a non-GAAP measure and provide the disclosures required by Item 10(e) of Regulation S-K, including retitling the non-GAAP measure as required by Item 10(e)(1)(ii)(E). One example might be to call it gross profit (excluding depreciation expense). Naturally, if you removed the non-GAAP measure, you would have to then revise your MD&A to discuss the change between periods in cost of products sold (excluding depreciation expense) instead.

Liquidity and Capital Resources, page 36

3. Please disclose here or elsewhere in the filing the specific terms of any material debt covenants in your debt agreements. For any material debt covenants, please disclose the required amounts/ratios as well as the actual amounts/ratios as of each reporting date. This will allow readers to understand how much cushion there is between the required amounts/ratios and the actual amounts/ratios. Please show the specific computations used to arrive at the actual amounts/ratios with corresponding reconciliations to US GAAP amounts, if necessary. Please also disclose the extent to which you have any debt agreements with cross default provisions, whereby an event of default on one debt agreement could cause other debt agreements to become immediately payable. See Sections I.D and IV.C of the SEC Interpretive Release No. 33-8350 and Question 10 of our FAQ Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003.

Critical Accounting Estimates, page 39

4. Goodwill and other intangible assets comprised approximately 28% of your total assets as of March 31, 2008. You have a history of completing several acquisitions per year. In the interest of providing readers with a better insight into management's judgments in accounting for goodwill and intangible assets, please consider disclosing the following in future filings:
 - The reporting unit level at which you test goodwill for impairment and your basis for that determination;
 - How you determine the appropriate sales growth and profitability targets, working capital assumptions, and capital expenditure forecasts to apply in your impairment analyses;

- A qualitative and quantitative description of the material assumptions used and a sensitivity analysis of those assumptions based upon reasonably likely changes; and
- If applicable, how the assumptions and methodologies used for valuing goodwill and intangible assets in the current year have changed since the prior year, highlighting the impact of any changes.

Off-Balance Sheet Arrangements, page 44

5. We note from your discussion here and on page 29 that you securitize some of your trade receivables and use the proceeds to reduce borrowings under your revolving credit facilities. Please revise your filing to more fully describe how current the current credit market environment has or has not impacted your ability to continue to securitize your trade receivables. To the extent that you have had to seek alternative sources of liquidity, please describe the alternative sources you now use and the advantages and disadvantages of these sources as compared to your historical practice of securitizing trade receivables.

Consolidated Financial Statements

Consolidated Statements of Stockholders' Equity, page F-8

6. Please revise to include a column which presents the total of all the components of Stockholders' Equity as of each period presented. The total of this column should equal the amount of total stockholders' equity presented on the face of your consolidated balance sheets as of each period presented. Please also revise to include a column which shows changes in the number of shares held as treasury stock for each period presented.
7. Please revise to disclose the amounts of reclassification adjustments associated with each component of other comprehensive income for each period presented. Refer to paragraphs 18-20 of SFAS 130. Please also revise to disclose the amount of income tax expense or benefit allocated to each component of other comprehensive income, including reclassification adjustments, as described in paragraph 25 of SFAS 130.

Note 3 – Acquisitions and Divestitures, page F-18

8. Please describe for us both the industry and company specific assumptions that you relied up on in determining the 14-17 year amortization period for your \$88 million customer list intangible assets acquired during the fiscal year ended March 31, 2008. Please also tell us how you monitor whether customer lists obtained on acquisition continue to provide benefit to you as part of your annual impairment analysis. If more customers are leaving earlier than expected, please also tell us and disclose how you account for this.

FORM 10-Q FOR THE PERIOD ENDED SEPTEMBER 30, 2008

General

9. Please address the above comments in your interim filings as well.

Note 10 – Fair Value of Financial Assets and Liabilities, page 16

10. Please revise your discussion of Level 3 assets to address the following (to the extent material):
- whether realized and unrealized gains (losses) affected your results of operations, liquidity or capital resources during the period, and if so, how;
 - the reason for any material decline or increase in the fair values; and
 - whether you believe the fair values diverge materially from the amounts you currently anticipate realizing on settlement or maturity. If so, disclose why and provide the basis for your views.

Please refer to the March 2008 and September 2008 Division of Corporation Finance's "Sample Letter sent to Public Companies on MD&A Disclosures Regarding the Application of SFAS 157" which are available on the SEC web site at: www.sec.gov/divisions/corpfin/guidance/fairvalueltr0308.htm and www.sec.gov/divisions/corpfin/guidance/fairvalueltr0908.htm

* * * *

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please furnish your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

Mr. Robert McLaughlin
Airgas, Inc.
January 13, 2009
Page 5

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- 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 company 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 our review of your filing or in response to our comments on your filing.

If you have any questions regarding these comments, please direct them to Lisa Haynes, Staff Accountant, at (202) 551-3424 or, in her absence, to the undersigned at (202) 551-3769.

Sincerely,

Rufus Decker
Accounting Branch Chief