



DIVISION OF
CORPORATION FINANCE

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

September 12, 2006

Room 7010

James S. Sawyer
Senior Vice President and Chief Financial Officer
Praxair, Inc.
39 Old Ridgebury Road
Danbury, Connecticut 06810

Re: Praxair, Inc.
Form 10-K for Fiscal Year Ended December 31, 2005
Form 10-Q for the Fiscal Quarter Ended March 31, 2006
Form 10-Q for the Fiscal Quarter Ended June 30, 2006
File No. 001-11037

Dear Mr. Sawyer:

We have reviewed your response letter dated August 29, 2006 and have the following comment. Where indicated, we think you should revise your document or revise your document in future filings in response to this comment. If you disagree, 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 our comment, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Form 10-K for Fiscal Year Ended December 31, 2005

Note 4. Segment Information, page 49

1. We have reviewed your response dated August 29, 2006. We note that you have reconfirmed the fact that NAIG, Mexico, PDI, Healthcare and Electronics business units meet the criteria of operating segments under SFAS 131. However, based on the information in your CODM reports you provided us on June 30, 2006 and the sales trend and operating profit trend graphs presented in this response, it is not clear to us that these operating segments are economically similar. Specifically, while we note that you are able to explain the reasons for the apparent discrepancies in the trends depicted in the sales and operating trends for the periods you have presented, the reasons you have noted (i.e. electronic

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sales trends reflects the impact of production transfers to Asia and healthcare operating profit has been impacted by recent pricing pressures) appear to correlate to the primary economic environment under which these businesses operate. Therefore, please reassess the aggregation of these business units and tell us how you will provide additional disaggregated business unit information that complies with paragraph 17 of SFAS 131. Otherwise, please provide us with additional information that supports aggregation of these operating segments, including (i) sales, gross profit and gross profit percentages for the last five years for each segment and any related forecasted projections you may have for these operating segments and (ii) explanations for any apparent differences in trends depicted by this information, including an explanation as to why these differences would not be considered an indication of differences in each business unit's economic characteristics.

As appropriate, please respond to this comment within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Melissa Rocha at (202) 551-3854, Jeanne Baker at (202) 551-3691 or me at (202) 551-3255 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Nili N. Shah
Branch Chief