



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

Mail Stop 7010

July 10, 2006

Mr. W. David Wilson  
Vice President and Chief Financial Officer  
PolyOne Corporation  
33587 Walker Road  
Avon Lake, OH 44012

**RE: PolyOne Corporation**  
**Form 10-K for Fiscal Year Ended December 31, 2005**  
**Filed March 15, 2006**  
**File No. 001-16091**

Dear Mr. Wilson:

We have limited our review of your filing to the issue we have addressed in our comment. 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 supplemental 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.

Note R – Segment Information, page 56

1. We note that you have three reportable segments. However, we note that your performance plastics segment serves a number of markets for which we would expect economic performance to differ, such as North America compared to Europe and Asia. We note your disclosure on page 16 that you, “are implementing specific plans to bring three product groups, North American Color, North American Engineered Materials and the newly formed Producer Services, to a combined level of profitability in 2006.” We also note in your Note P – Income Taxes on page 54 that your domestic and foreign income before income

taxes and discontinued operations have fluctuated differently year over year with your domestic income increasing 583% over the prior year while your foreign income decreased 69%. In addition, we note that in your schedule of executives with continuity agreements filed as Exhibit 10.11(b) to your Form 10-K for the year ended December 31, 2005, your management structure appears to include a Vice President for each of the various businesses within your performance plastics segment. Accordingly, it is unclear how you have determined that you have only three reportable segments. Given the above, please provide us with the internal financial reports provided to your chief operating decision maker as of December 31, 2005 and March 31, 2006. If you aggregate your operating segments, please explain to us, in detail, the basis for the aggregation of your operating segments into your three reportable segments. In this regard, please tell us, for each bullet point below, how you determined that:

- all of your operating segments are economically similar. Please provide us with an analysis that includes historical revenues, gross profits, gross profit margins, operating profits, and operating profit margins, along with any other information you believe would be useful for each of your products operating segments to help us understand how these operations are economically similar. Please also address any differences in the trends these financial indicators depict (e.g. if gross profit margin is decreasing for one operation and increasing for another).
- all of your operating segments have similar products.
- the production processes for all of your product-related operating segments are similar.
- the customers for all of your product-related operating segments are similar,
- the distribution methods of all of your product-related operating segments are similar.

\* \* \* \*

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

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.

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

- the company is 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 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 this comment, please direct them to Ryan Rohn, Staff Accountant, at (202) 551-3739 or, in his absence, to Al Pavot, Staff Accountant, at (202) 551-3738, or to the undersigned at (202) 551-3255.

Sincerely,

Nili Shah  
Accounting Branch Chief