

September 26, 2007

Mail Stop 4651

By U.S. Mail and facsimile to (973) 357-3401

Mr. David Lilley
Chief Executive Officer
Cytec Industries Inc.
Five Garret Mountain Plaza
West Paterson, New Jersey 07424

**Re: Cytec Industries Inc.
Definitive 14A
Filed on March 9, 2007
File Number 001-12372**

Dear Mr. Lilley:

We have limited our review of your definitive proxy statement to your executive compensation and other related disclosure and have the following comments. Our review of your filing is part of the Division's focused review of executive compensation disclosure.

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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call me at the telephone number listed at the end of this letter.

In some comments we have asked you to provide us with additional information so we may better understand your disclosure. Please do so within the time frame set forth below. You should comply with the remaining comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us how you intend to comply. Please understand that after our review of all of your responses, we may raise additional comments.

If you disagree with any of these comments, 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.

Certain Relationships and Related Transactions, page 16

1. Please disclose the standards you apply when determining to approve or ratify transactions with related persons. Refer to Item 404(b) of Regulation S-K.

Compensation Discussion and Analysis, page 18

2. Please provide specific analysis of how you arrived at and why you paid each of the particular levels and forms of compensation for 2006. For example, you provide little, if any, analysis of how the application of the formula for the awarding of short-term cash incentive compensation resulted in the specific payouts set forth in column (f) of the Summary Compensation Table. Provide a description of the specific levels of achievement of each named executive officer relative to the targets as well as any additional information pertaining to each individual's performance that the Committee considered in determining specific payout levels for 2006. Notwithstanding the disclosure in the first full paragraph of page 29, please consider providing a specific example of how the respective weighted factors in the formula work in practice by applying the formula to an actual award made to a named executive officer in a given fiscal year. Similarly, there is little analysis of how you determined the number of stock appreciation rights. Please provide sufficient quantitative and qualitative analysis of the factors the Committee considered in making specific compensation awards and provide additional insight into the reasons why the Committee believes that the amounts you paid to each named executive officer are appropriate in light of the various items it considered in making specific compensation decisions. See Item 402(b)(1)(v) of Regulation S-K.
3. Please disclose the specific items of corporate performance and individual objectives used to determine incentive amounts and discuss how your incentive awards are specifically structured around these performance goals and objectives. See Item 402(b)(2)(v) of Regulation S-K. Refer to your description of targets and percentages on pages 18 and 19. To the extent you believe that disclosure of these targets is not required because it would result in competitive harm such that you may omit the disclosure under Instruction 4 to Item 402(b) of Regulation S-K, please provide on a detailed supplemental analysis supporting your conclusion and provide appropriate disclosure pursuant to Instruction 4. In discussing how difficult it would be for the named executive officers or how likely it will be for you to achieve the undisclosed target levels or other factors, please provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.
4. There is minimal analysis and discussion of the effect individual performance has on compensation awards despite disclosure that indicates that you make compensation-related decisions in connection with non-quantitative achievements. Refer to disclosure on pages 18 and 19. Please provide additional detail and analysis of how individual performance contributed to actual 2006 compensation for the named executive officers. For example, discuss in greater detail the achievement of the financial and operational goals within a named

executive officer's individual area of responsibility. See Item 402(b)(2)(vii) of Regulation S-K.

Compensation Program Review, page 20

5. Please provide a materially complete description of the Committee's processes and procedures for the consideration and determination of executive compensation. See Item 407(e)(3) of Regulation S-K and Section V.D. of Commission Release 33-8732A. For example, discuss the role of Mr. Lilley in your compensation processes and his input during the crafting of compensation packages. Discuss whether or not Mr. Lilley makes recommendations to the Committee relating to measures, targets and similar items that affect his compensation.

Summary Compensation Table, page 28

6. Please identify material differences in compensation policies with respect to individual named executive officers in the Compensation Discussion and Analysis. Please refer to Section II.B.1. of Commission Release No. 33-8732A. Refer to the disparities in Mr. Lilley's salary, the amounts you awarded to him under your non-equity incentive programs and the option award you made on February 8, 2006. Please provide a detailed discussion of how and why Mr. Lilley's compensation differs from that of the other named executive officers. If policies or decisions relating to a named executive officer are materially different from the other officers, please discuss this on an individualized basis.

Outstanding Equity Awards at Fiscal Year-End, page 32

7. Please disclose by footnote the vesting dates of options and shares of stock at fiscal-year end. Refer to Instruction 2 to Instructions to Item 402(f)(2).

Potential Payment Upon Termination or Change in Control, page 37

8. Please describe and explain how you determined the appropriate payment and benefit levels under the various circumstances that trigger payments or provision of benefits under the various employment agreements and change of control arrangements. Also, discuss how these arrangements fit into your overall compensation objectives and affect the decisions you made regarding other compensation elements and the rationale for decisions made in connection with these arrangements. See paragraphs (b)(1)(v) and (j)(3) of Item 402 of Regulation S-K.

Director Compensation, page 40

9. With respect to the option awards, clarify in footnotes the assumptions made in the valuation by reference to a discussion of those assumptions in financial statements, footnotes to the financial statements, or discussion in the Management's Discussion and Analysis.

Please respond to our comments by October 26, 2007, or tell us by that time when you will provide us with a response.

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 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.

When you respond 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 the filing;
- staff comments or changes to disclosure in response to 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 connection with our review of your filing or in response to comments.

Please contact me at (202) 551-3422 with any questions.

Sincerely,

Timothy A. Geishecker
Senior Counsel