

Mail Stop 3561

August 21, 2007

By U.S. Mail and facsimile to (408) 748-5119

Michael R. Splinter
President and Chief Executive Officer
Applied Materials, Inc.
3050 Bowers Avenue
Santa Clara, California 95054

**Re: Applied Materials, Inc.
Definitive 14A
Filed February 14, 2007
File No.000-06920**

Dear Mr. Splinter:

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.

Compensation Discussion and Analysis, page 39

Overview of Compensation Program and Philosophy, page 39

1. You indicate that you engaged compensation consultants to assist in setting and assessing your executive compensation. Please describe in greater detail the nature and the scope of the consultant's assignment and the material elements of the instructions and directions given to the consultants with respect to the performance of their duties under the engagement. Please refer to Item 407(e)(3)(iii) of Regulation S-K.

Elements of Compensation, page 40

2. You state that the compensation committee acted on certain compensation elements in 2007 such as increasing base salaries, setting the bonus formula and performance goals and granting special retention performance shares. Please provide in your compensation discussion and analysis, a discussion of policies that you will apply on a going-forward basis. See the text of Securities Act Release 33-8732A, marked by footnote 86. Please revise your disclosure to disclose your 2007 fiscal year targets.
3. It is unclear how you determine the award amount of each component of the incentive compensation. Your disclosure should indicate how award amounts are calculated with respect to the performance metric that is taken into account for determining compensation. Please revise your disclosure to describe how you determine the award amounts, explaining how each component amount is determined and discussing, if applicable, whether payments are allocated between the components addressing the factors considered and the relative significance accorded to each factor. Please refer to Item 402(b)(1)(v) of Regulation S-K.

Base Salary and Annual Incentive Opportunities, page 41

4. It is unclear whether the use of compensation surveys is limited to the information regarding the peer groups listed on page 41. If it is not, please disclose the additional companies whose target cash compensation is considered for benchmarking.
5. You indicate that the goal is to target base pay at the 50th percentile and total cash compensation at the 65th percentile. Please clarify if this is the actual target and whether actual compensation awarded was at the targeted amount. If the compensation for any of your named executive officers varies from target, you should disclose that and explain the why it was outside of the range. Please refer to Item 402(b)(1)(v) of Regulation S-K.
6. Please revise your disclosure to provide the performance measures considered to determine the amount payable under your performance based incentive compensation. To the extent you believe that disclosure of the performance measures is not required

because it would result in competitive harm such that the performance measures could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with your analysis using the standard you would use if requesting confidential treatment and discuss in your disclosure how difficult it would be for the named executive officers to meet those goals or how likely it will be for the company to achieve the undisclosed target levels. General statements regarding the level of difficulty, or ease associated with achieving performance goals, are not sufficient. In discussing how difficult it will be for an executive or how likely it will be for you to achieve the target levels or other factors, you should provide as much detail as necessary without providing information that would result in competitive harm. You should provide insight into the factors considered by the compensation committee prior to the awarding of performance-based compensation such as historical analyses prior to the granting of these awards or correlations between historical bonus practice and the incentive parameters set for the relevant fiscal period.

7. Please clarify your disclosure regarding the bonus plan applicable to George S. Davis. Discuss how his bonus is calculated and discuss which plan it falls under. Please refer to Item 402(b)(1)(v) of Regulation S-K.
8. While your disclosure suggests that individual performance is a factor in the compensation process, you provide little discussion and analysis of the effect of individual performance on performance based compensation. You should provide additional detail and an analysis of how individual performance contributed to actual compensation for the named executive officers. Please refer to Item 402(b)(2)(vii) of Regulation S-K.
9. We refer you to Securities Act Release 8732A, Section II.B.1. As noted in that section, the compensation discussion and analysis should be sufficiently precise to identify material differences in compensation policies for individual executive officers. In this regard, we note that Mr. Splinter's salary, non-equity incentive plan compensation and grants of options were significantly higher than amounts given to other named executive officers. Please supplement the disclosure to explain the reasons for the differences in the amounts of compensation awarded to the named executive officers.

Long-Term Incentive Compensation, page 45

10. Please revise your discussion on your equity based compensation to discuss how you determine the equity based compensation for a named executive officer including the amount of the equity award, how you determine the allocation between the different types of equity awards and when the awards are granted. Please refer to Item 402(b)(1)(v) and 402(b)(2)(ii) and (iv) of Regulation S-K.

Summary Compensation Table, page 52

11. You state on page 60 that Ms. Handel earned the right to payments pursuant to a separation agreement in 2006. It is not clear why these amounts are not indicated in the all other compensation column of the summary compensation table. In addition, it is also not clear whether the accelerated vesting is included in the table. Please refer to Item 402(c)(3)(ix)(D) of Regulation S-K.

Please respond to our comments by September 21, 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.

Michael R. Splinter
Applied Materials, Inc.
August 21, 2007
Page 5

Please contact me at (202) 551-3315 with any questions.

Sincerely,

Hanna T. Teshome
Special Counsel