



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3720

December 21, 2006

**Via U.S. Mail and Fax (614) 798-1299**

Ms. Julia A. Fratianne  
Chief Financial Officer  
Applied Innovation Inc.  
5800 Innovation Drive  
Dublin, OH 43016

**RE: Applied Innovation Inc.  
Form 10-K for the fiscal year ended December 31, 2005  
Filed March 20, 2006**

**Form 10-Q for the quarters ended March 31, June 30, and September 30, 2006  
File No. 0-21352**

Dear Ms. Fratianne:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Please address the following comments in future filings. If you disagree, we will consider your explanation as to why our comment is inapplicable or a future 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

***Quarterly Report filed on form 10-Q for the quarter ended March 31, 2006***

Note 2 – Stock Based Compensation, pages 6-10

1. Considering that you estimate “the fair value of stock options using a Black-Scholes option-pricing model to determine the fair value of stock-based awards under SFAS 123(R)...consistent with that used for *pro forma* disclosures under SFAS 123, *prior* to the adoption of SFAS 123(R),” tell us how you determined that the expected volatility of your stock dropped to 63% from an amount that was consistently greater than 83% in each of the prior three years.

\* \* \* \*

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. The response should be uploaded to the EDGAR system. 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 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.

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 the 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 filings; 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 filings or in response to our comments on your filings.

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You may contact Paul Monsour, Staff Accountant, at (202) 551-3360 or Carlos Pacho, Senior Assistant Chief Accountant, at (202) 551-3835 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spirgel  
Assistant Director