



DIVISION OF  
CORPORATION FINANCE

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

September 1, 2010

Mr. Gregory E. Hare  
Chief Financial Officer  
Applied Visual Sciences, Inc.  
250 Exchange Place, Suite H  
Herndon, Virginia 20170

**Re: Applied Visual Sciences, Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2009  
Filed April 2, 2010  
File No. 000-28238**

Dear Mr. Hare:

We have reviewed your letter dated July 28, 2010 in connection with the above-referenced filing and have the following comment. In our comment, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to this comment, we may have additional comments. Unless otherwise noted, where prior comments are referred to they refer to our letter dated July 7, 2010.

Form 10-K for the Fiscal Year Ended December 31, 2009

Consolidated Financial Statements

Notes to Consolidated Financial Statements

Note 6. Stockholders' Equity (Deficit)

Issuance of Common Stock and Related Common Stock Warrants

1. We note your response to prior comment 2 outlines how the anti-dilutive provisions of the Series D warrant agreement calculates a new exercise price and the issuance of additional warrants. Tell us why you believe these anti-dilutive provisions would not result in a similar analysis and conclusion reached in Example 9 as illustrated by ASC 815-40-55-33 and 34. Further, we note your consideration of Example 17 in ASC 815-

Mr. Gregory E. Hare  
Applied Visual Sciences, Inc.  
September 1, 2010  
Page 2

40-55-42 in determining how to classify these instruments. Explain why your calculation of a new exercise price is consistent with Example 17. In this example, the strike price of the instrument is adjusted if the entity issues shares for an amount below the then-current market price. Please be advised that there is no dilutive event when shares are sold at the current market price (i.e., no impact on the price of the underlying shares due to this specific event). In addition, tell us why you believe that the additional warrants issued should be recorded as an equity transaction.

You may contact Laura Veator, Staff Accountant, at (202) 551-3716 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3730 with any other questions.

Sincerely,

Stephen Krikorian  
Accounting Branch Chief