



DIVISION OF  
CORPORATION FINANCE

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

October 29, 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 October 4, 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 October 4, 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 1 that ASC 815-40-55-34 does not apply since the Series D warrant agreement contains an exercise contingency. Clarify why the call option causes example 9 not to apply to this warrant. Step 1 in this example is an analysis of paragraph 15-7(a) and 15-7A of ASC 815-40. Tell us why you believe ASC-

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815-40-55-34 does not apply. We refer you to paragraphs 815-40-15-7 through 7C which require an evaluation of both the instrument's contingent exercise provisions and the instrument's settlement provisions. Further, as illustrated by ASC 815-40-55-33 and 34, provisions that allow the holder to be compensated for a loss caused by a market-driven decline in the value of the shares are not consistent with a fixed-for-fixed option on equity shares and would not be considered indexed to the Company's stock. While a change in the value of shares that is directly attributable to a company-initiated transaction, such as a stock split, stock dividend or sale of shares at less than the current fair value are events that would allow adjustment to the exercise price of a fixed-for-fixed option on equity shares, we note the terms of your warrants allow for the exercise price to be reduced in the event the Company sells any shares at less than the current exercise price. That is, the exercise price can be reduced for a decline in the value of the Company's shares, not just for the dilutive impact of issuing additional shares at a price less than the current fair value. Tell us why you believe the terms of your warrants only allow adjustments for the dilutive impacts of company-initiated transactions, such as those described above, and should be considered indexed to the Company's stock. Further, tell us why maintaining the exercise value is consistent with ASC 815-40-15-7.

You may contact Laura Veator 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