

Electro Optical Sciences, Inc
Three West Main Street
Irvington, NY 10533

October 20, 2009

US Securities and Exchange Commission
100 F Street NE
Washington, DC 20549
Attn: Brian Cascio
Accounting Branch Chief

RE: Electro Optical Sciences, Inc
Form 10K for the fiscal year ended December 31, 2008
Filed March 15, 2009
File No 000-51481

Dear Mr. Cascio:

Reference is made to the letter from the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") dated October 15, 2009, setting forth comments to the Form 10K for the fiscal year ended December 31, 2008 filed by Electro Optical Sciences, Inc. (the "Company"). Set forth below are the Staff's comments indicated in bold, and the Company responses.

Form 10-K for the fiscal year ended December 31, 2008

Note 8, Stock-Based Compensation and Warrants, page 61

- 1. We note the statement in your response to prior comment 2 that you use "accepted methods for computing volatility." Please tell us and revise future filings to disclose the actual methods and assumptions used to compute volatility.**

Company response:

In developing our estimates of expected volatility management utilized the guidance contained in FASB ASC 718-10-55-37 and computed volatility using the Company's daily stock closing price since inception as a publicly listed company.

In future filings we will state: "The expected volatility assumptions were determined based upon the historical volatility of the Company's daily closing stock price."

The Company acknowledges that:

The Company is responsible for the adequacy and accuracy of the disclosure in this filing, the staff comments or changes to disclosure in response to staff 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.

If you have any further questions, please do not hesitate to contact the undersigned.

Respectfully submitted,

/s/ Richard I. Steinhart

Richard I. Steinhart
Vice President and CFO
Electro Optical Sciences, Inc.