

Mail Stop 6010

November 3, 2006

By U.S. Mail and Facsimile to (503) 671-5698

Mr. John Metcalf  
Senior Vice President of Administration,  
Chief Financial Officer and Corporate Secretary  
Electro Scientific Industries, Inc.  
13900 N.W. Science Park Drive  
Portland, Oregon 97229

**RE: Electro Scientific Industries, Inc.  
Form 10-K for the year ended June 3, 2006  
File No. 0-12853**

Dear Mr. Metcalf:

We have reviewed your letter filed on October 17, 2006 and have the following comments. Where indicated, we think you should revise your future documents in response to these comments. If you disagree, 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. 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 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.

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Form 10-K for the year ended June 3, 2006

Product Warranty, page 39

1. Please refer to prior comment 3. It appears from your response that the inventory credits to your warranty accrual represent cost recoveries from your suppliers. Please tell us why such a reimbursement would increase (be a credit to) your warranty liability. To help us better understand your accounting for warranty reimbursements please provide us with sample journal entries showing how you account for all your warranty transactions.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3603 regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact, Angela Crane, Branch Chief at (202) 551-3554 with any other questions.

Sincerely,

Jay Webb  
Review Accountant