



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 6010

March 18, 2008

VIA U.S. MAIL AND FAX (845) 578 - 5985

Sean B. O'Connor  
Chief Financial Officer  
LeCroy Corporation  
700 Chestnut Ridge Road  
Chestnut Ridge, New York 10977

**Re: LeCroy Corporation  
Form 10-K for the fiscal year ended June 30, 2007  
Filed September 13, 2007  
File No. 000-26634**

Dear Mr. O'Connor:

We have reviewed your letter dated March 6, 2008 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.

Form 10-K for the year ended June 30, 2007

1. Summary of Significant Accounting Policies, page 59

Fiscal Year Ending Dates, page 59

1. Please refer to our prior comment 1. As previously requested, revise your future filings to include financial statements as of and for the periods ended on your actual fiscal year end date.

Goodwill, page 63

2. Please refer to our prior comment 2. You responded that the initial step of your goodwill impairment testing consists of estimating the fair value of your aggregated reporting unit based on market capitalization plus an implied control premium. Please respond to the following:
  - Your response related to “aggregated” reporting unit is not clear to us and seems inconsistent with your disclosures on page 63 that you only have one reporting unit. Please tell us what you mean when you say you “aggregated” reporting units. Also, please refer to paragraphs 30 and 31 of SFAS 142 and explain to us how many reporting units you have. Finally, explain how you determined your reporting units, citing applicable U.S. GAAP.
  - Note that goodwill shall be tested for impairment at a reporting unit level. Refer to paragraph 18 of SFAS 142 and explain why the impairment testing at an “aggregate” reporting unit level is in accordance with U.S. GAAP.
  - You responded that you have periodically analyzed the need for a goodwill impairment since the filing of your fiscal 2007 Form 10-K. Explain to us when those analyses were performed and provide us with the dollar amount of the market capitalization and the carrying value you used for each analysis as well as how the amounts were determined.
  - Your explanation that you included an “implied” control premium as part of your periodic analyses is unclear to us. We note a control premium is a premium that an acquiring entity is willing to pay for ownership of an amount of equity securities that give it a controlling interest in a company (rather than less than a controlling interest). In the absence of an offer to purchase a controlling interest in you, it appears to us that it is not an amount that would be readily determinable. Explain to us how much of your total reporting unit fair value the “control premium” was for each of your impairment analyses and how you determined the control premium that an acquiring entity would be willing to pay for you.

Sean B. O'Connor  
LeCroy Corporation  
March 18, 2008  
Page 3

- We note that you will revise and expand your goodwill impairment accounting policy. Please provide us with your proposed disclosures about your accounting policy related to goodwill impairment.
- As necessary, in future filings please expand the critical accounting estimate disclosures in your Management's Discussion and Analysis to include the methodologies and the significant assumptions you used in goodwill impairment testing. For further guidance, refer to our Release 33-8350.

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 Andri Boerman, Staff Accountant, at (202) 551-3645 or me at (202) 551-3603 if you have any questions regarding these comments. In this regard, do not hesitate to contact Angela Crane, Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb  
Reviewing Accountant