



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

April 7, 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 31, 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

Goodwill, page 63

1. Please refer to our prior comment 2. You responded that your best estimate of a reasonable control premium was 30%, yet it is unclear to us whether the valuation technique and the major assumptions you used are consistent with U.S. GAAP. Please respond to the following:
 - Please explain to us in greater detail the valuation technique or methodology you employed to estimate the 30% control premium. Revise future filings to clearly disclose the valuations methodologies used to value your reporting unit and to provide sufficient information to enable financial statement users to assess the inputs used to develop those value measurements.
 - We do not object that a market capitalization alone may not be representative of the fair value of a reporting unit. As we described in our prior comment, 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). As such, a confirmed selling price for a reporting unit *at a measurement date* is the best evidence of a reporting unit's fair value and the amount of any control premium. Explain to us, in the absence of an offer to buy your company (reporting unit) at December 28, 2007, why you concluded that your valuation technique was in accordance with the U.S. GAAP. For further guidance, refer to paragraphs 23 – 25 and B154 - B155 of SFAS 142.
 - We note in your response that "To establish a reasonable control premium, [you] considered: (i) the premiums paid in comparable companies'...and (iv) the Company's past experiences..." Tell us more about each consideration including the name of the companies, the amount and the market capitalization you considered. Also in this regard, explain to us how current the information was at the measurement date and why the assets, liabilities and operations of the companies you considered is comparable to those of your reporting unit. Finally, confirm and clearly revise your future filings to disclose, if true, any control premium amounts utilized in your goodwill impairment testing are not "standard" amounts based on broad assumptions, rather, the amounts are based on a detailed analysis that considers all appropriate industry, market, economic and other pertinent factors.

2. We note that you retained a third party valuation advisor to assist you in reassessing the estimated fair value of your *equity* on a controlling basis. Please respond to the following:
- Clarify whether you hired a third party valuation advisor to estimate the fair value of your *reporting unit*.
 - Explain to us about the methodology and the major assumptions that the third party valuation advisor used to estimate the fair value of the reporting unit and why the third party valuation advisor's methodology is in accordance with U.S. GAAP.
 - If the third party valuation advisor's valuation methodology differs from the valuation methodology you had used, then please explain to us why the change in valuation methodology is in accordance with U.S. GAAP. Also, support the reason for any changes in valuation methods and disclose any such changes in future filings.
 - Note if you choose to refer to the third party expert in any capacity in your filings, the filing should name the independent valuation firm.

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