



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 6010

November 20, 2008

Via U.S. Mail and Facsimile

Mr. Guy A. Childs  
Vice President and Chief Financial Officer  
The Spectranetics Corporation  
96 Talamine Court  
Colorado Springs, Colorado 80907

**Re: The Spectranetics Corporation**  
**Form 10-K for the Year Ended December 31, 2007**  
**Filed March 17, 2008**  
**Form 10-Q for the Quarterly Period Ended September 30, 2009**  
**File No. 000-19711**

Dear Mr. Childs:

We have reviewed your response dated November 14, 2008 and have the following additional comments. Where indicated, we think you should revise your document in future filings 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.

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-Q as of September 30, 2008

Note 3 – Composition of Certain Financial Statement Items, page 6

Investments, page 6

1. We note your response to prior comment 3. You state on page 7 that your valuation of your auction rate securities is based on third-party pricing models that use unique inputs for each security and that you valued the auction rate securities using a discounted cash flow model. You state that the discount rates used were calculated using the closest match available for other insured asset backed securities. Please tell us and revise your disclosures in the Critical Accounting Policies portion of MD&A in future filings to address the following:
  - Disclose the discount rates that you used.
  - Discuss the nature of the other asset backed securities that you utilized to develop the discount rate assumptions and why you believe these other asset backed securities are an appropriate basis for comparison.
  - Discuss what adjustments you made to the discount rates obtained from other asset backed securities in order to account for the illiquidity in the current auction rate securities markets.
  - To the extent that your discount rate assumptions have changed from the prior period, disclose this fact and include a discussion of the factors that led to the change.
  - We note that a portion of your auction rate securities are not guaranteed by the U.S. Government under the Federal Education Loan Program. Discuss how your valuation of the non-guaranteed securities considered the higher risk exposure in these securities.
  - Expand your disclosures in Critical Accounting Policies in future filings to discuss how your valuation might have differed had you used different assumptions.
2. We note that you recorded the reduction of the value of the auction rate securities as an unrealized loss. Please revise future filings to specifically disclose, if true, that you believe that the securities will recover their full par value and that you have both the intent and ability to hold the securities until such recovery.

Mr. Guy A. Childs  
The Spectranetics Corporation  
October 17, 2008  
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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 Lynn Dicker, Staff Accountant, at (202) 551-3616 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact me or Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any questions.

Sincerely,

Kevin L. Vaughn  
Accounting Branch Chief