



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

July 24, 2006

Mr. Michael M. Megless  
Chief Financial Officer, Spectrum Sciences and Software Holding Corp.  
3130 Fairview Park Drive, Suite 400  
Falls Church, VA 22042

**Re:           Spectrum Sciences and Software Holding Corp.  
          Form 10-K for the fiscal year ended December 31, 2005  
          Form 10-Q for the period ended March 31, 2006  
          File No. 0-50373**

Dear Mr. Megless:

We have reviewed your response to our letter dated June 20, 2006 and have the following comments. We ask that you respond by August 7, 2006.

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 on 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 fiscal year ended December 31, 2005**

Item 1. Business, page 1

1. Based on your response to comment one from our previous comment letter dated June 20, 2006, it appears that your disclosure that the management of Horne took control of you effective June 2005 was meant to convey the change in your executive management and the resulting changes in your operations and policies, rather than a legal change in control of your company. Please confirm that you will revise future filings to clarify this matter, as we believe that your current reference to the management of Horne taking control of you may be confusing to your readers without additional elaboration.

Item 6. Selected Financial Data, page 9

2. We note your response to comment two from our previous comment letter dated June 20, 2006 and appreciate the additional information. We previously requested that you provide us with your disclosures as required by question eight of our non-GAAP FAQ. It appears that you have addressed most of the items as required; however, we remind you that you need to include: the material limitations associated with use of the non-GAAP financial measure as compared to the use of the most directly comparable GAAP financial measure; the manner in which management compensates for these limitations when using the non-GAAP financial measure; and the substantive reasons why management believes the non-GAAP financial measure provides useful information to investors. Please provide this information to us, and confirm that in future filings you will include all disclosures required by question eight of our non-GAAP FAQ.

Item 8. Financial Statements and Supplementary Data

Note 2 – Summary of Significant Accounting Policies – Revenue Recognition, page 24

3. We note your response to comment six from our previous comment letter dated June 20, 2006. We have the following additional comments:
  - With regard to the contracts for sales of your Security Solutions' manufactured equipment, please tell us how you have determined that you do not fall under the first bullet point of paragraph 14 of SOP 81-1. Additionally, to help us better understand how you determined that percentage of completion accounting was appropriate, please provide us with a detailed explanation of both your and your buyer's enforceable rights to the work-in-progress as the work progresses. Refer to paragraph 22 of SOP 81-1.
  - With regard to your Industrial and Offshore segment, please tell us if you had any contracts that were in progress at December 31, 2005. It remains unclear to us that it is appropriate to recognize revenue from this segment based on the percentage of completion. However, we note from page 2 of your Form 10-K that most work is performed between April and October. If you had any contracts in progress at December 31, 2005, please quantify for us the total revenues from those contracts and the portion that had been recognized before year end, and provide us with a detailed explanation of both your and your buyer's enforceable rights to the work-in-progress as the work progresses.

- With regard to your Engineering Services segment, based on the description of this business on page 4 of your Form 10-K, it appears that most of the services provided by this segment are not engineering or design services. In this regard, we note your references to providing staffing, management studies, environmental sampling and remediation, policy development, cultural and natural resources studies, and investigation services to assess hazardous conditions and compliance with related policies for the DOT. We do not believe that it is appropriate to recognize service contract revenues under the percentage of completion method unless those services fall into the scope of SOP 81-1. Please refer to our response to Question 2 under SAB Topic 13(A)(3)(f) and to Section 2(F)(2) of our Outline of Current Accounting and Disclosure Issues. Please provide us with a detailed analysis of how the services performed by this segment fall into the scope of SOP 81-1, or tell us how these revenues should otherwise be recognized. If you no longer believe that these revenues should be recognized under the percentage of completion method, please confirm that you will revise your accounting for these revenues in the future, and provide us with an analysis demonstrating the impact on your 2005 results if you had accounted for these revenues under SAB Topic 13A.
- With regard to your Procurement Services segment, we read in Note 2 that you recognize revenues on equipment and material procurement contracts on a gross basis when the goods are shipped to the end user. Please explain this methodology to us in more detail, including how you determine the amount of revenue to recognize when each piece of equipment or material is shipped to the end user. It appears from your description of this segment on page 3 of your Form 10-K that you also provide procurement consulting services. If this segment does any work other than equipment and material procurement, please describe that work to us and tell us your accounting policy for recognizing those revenues. If you only perform procurement, please revise your description of this business in future filings to clarify this matter.

Note 3 – Acquisitions, page 28

4. We note your response to the third bullet point of comment nine from our previous comment letter dated June 20, 2006. Please provide us with more information about the additional intangible assets that you have identified, including, for each major category of intangible assets, the methodology that you used to determine their fair value, the amount of the total purchase price that you have allocated to them, and the useful lives over which they will be amortized. In this regard, it appears from the first paragraph of your response that you have identified some contract and customer related intangibles, and it appears from Article 3.15 of your Agreement and Plan of Merger that you acquired various patents, trademarks, service marks, trade names, brands and copyrights.

5. We note your response to the fourth bullet point of comment nine from our previous comment letter dated June 20, 2006, including your assertion that the EBITDA multiple used in determining the purchase price for Horne Engineering Services was consistent with those used in the marketplace for acquisitions of similar companies. However, we do not believe that your belief that the EBITDA multiple was reasonable would, in and of itself, preclude you from allocating a portion of the total \$13.6 million paid in this transaction to compensation expense. We continue to struggle to understand your assertion that part of the total amount paid in the Horne Engineering Services acquisition was not compensation for the following reasons:
- Page 29 of your Form 10-K states that “the primary purpose of the Horne acquisition was to effectuate a business combination pursuant to which the management of Horne would replace Spectrum’s then-current management team.”
  - Recital D on the first page of your Agreement and Plan of Merger with Horne Engineering Services states that “simultaneously with the Closing: (i) Horne will enter into an employment agreement with Buyer, in the form substantially set forth on Exhibit A attached hereto for the position of Chief Executive Officer and President of Buyer; (ii) Megless will enter into an employment agreement with Buyer, in the form substantially as set forth on Exhibit B attached hereto for the position of Chief Financial Officer of Buyer.”
  - At the closing of this merger, your then-current CEO and CFO stepped down and became the CEO and CFO of one of your segments, and Mssrs. Horne and Megless became your CEO and CFO.
  - The introductory paragraph of your Agreement and Plan of Merger with Horne Engineering Services states that the sole shareholders of Horne Engineering Services are Mssrs. Horne and Megless and Mr. Horne’s wife. Therefore, these are the only people who received the \$13.6 million that you paid in cash and newly issued stock in this transaction.

6. To help us better understand this matter, please provide us with a detailed analysis of why you do not believe that a portion of the \$13.6 million paid in this transaction represented compensation to Mssrs. Horne and Megless for agreeing to become your CEO and CFO. Your response should specifically address the following points, along with any additional information that you believe would be useful to us in understanding this matter:
- The information contained in Recital D on the first page of your Agreement and Plan of Merger with Horne Engineering Services appears to indicate that the acquisition of Horne Engineering Services was contingent upon Mssrs. Horne and Megless agreeing to become your CEO and CFO. Please tell us whether you would have acquired Horne Engineering Services if Mssrs. Horne and Megless had not agreed to become your CEO and CFO, and instead had remained solely as the management of the Horne Engineering Services portion of your company after the acquisition. Also tell us if the shareholders of Horne Engineering Services would have agreed to the acquisition under these altered terms. If you believe that both parties still would have proceeded with this merger, please tell us why you would have made the acquisition, since the purpose for the acquisition that is disclosed in your Form 10-K would not have been applicable to that situation. Also tell us what impact, if any, these altered terms of the acquisition would have had on the total purchase price.
  - Consistent with Recital D on the first page of your Agreement and Plan of Merger with Horne Engineering Services, we note that Mssrs. Horne and Megless signed five year employment agreements simultaneously with the closing of the merger. Please explain to us what penalties, if any, Mssrs. Horne and Megless would face if they left your company today, and tell us where such penalties are located in your merger or employment agreements. Would Mssrs. Horne and Megless, either as individuals who are currently employed by you or as former shareholders of Horne Engineering Services, be required to return any of the money or stock they have received from the merger itself or in connection with their employment agreements? If so, please quantify these amounts.
  - Please quantify for us the amount of cash, the number of shares of stock and the value of stock received by each of Mssrs. Horne and Megless and Mr. Horne's wife out of the total \$13.6 million consideration that you paid for the acquisition of Horne Engineering Services.
  - Please quantify for us the amount of salary and any other cash distributions received by Mssrs. Horne and Megless from Horne Engineering Services for fiscal years 2003 and 2004. Please compare these amounts to the annual salaries and other compensation that Mssrs. Horne and Megless are currently receiving from you in their new positions as your CEO and CFO. If Mssrs. Horne and Megless are receiving less compensation as your CEO and CFO than they did when they were the CEO and CFO of Horne Engineering Services, please explain to us why they are receiving less compensation and why, in light of the decreased compensation, they agreed to the merger with you.

Mr. Michael M. Megless  
Spectrum Sciences and Software Holding Corp.  
July 24, 2006  
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As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. Please provide us with a supplemental response letter that keys your responses to our comments and provides any requested supplemental information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities and Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

If you have any questions regarding these comments, please direct them to Mindy Hooker, Staff Accountant, at (202) 551-3732, Jennifer Thompson, Staff Accountant, at (202)551-3737 or to the undersigned at (202) 551-3768.

Sincerely,

John Cash  
Branch Chief