



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3561

November 10, 2009

*By U.S. Mail and facsimile to (415) 788-5660*

Ernest A. Bates, M.D.  
Chief Executive Officer  
American Shared Hospital Services  
Four Embarcadero Center, Suite 3700  
San Francisco, CA 94111

**Re: American Shared Hospital Services  
Form 10-Q for Fiscal Quarter Ended March 31, 2009  
Filed May 15, 2009  
Form 10-Q for Fiscal Quarter Ended June 30, 2009  
Filed August 14, 2009  
File No. 001-08789**

Dear Dr. Bates:

We have reviewed your filings and have the following comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In one comment we have asked you to provide us with additional information so we may better understand your disclosure. Please do so within the time frame set forth below. You should comply with the remaining comment in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us how you intend to comply, within the time frame set forth below. Please understand that after our review of all of your responses, 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 filings. 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-Q for Fiscal Quarter Ended March 31, 2009

Condensed Consolidated Statements of Cash Flows, page 5

1. We note your reconciliation of 'Net income (loss)' to 'Net cash from operating activities' begins with 'Net income (loss) attributable to American Shared Hospital Services'. In future filings, please reconcile your operating cash flows to 'Net income (loss)' as shown on your Condensed Consolidated Statements of Operations at page 3. See paragraph 28 of SFAS 95 (FASB ASC paragraph 230-10-45-28). In addition, please remove your operating cash flow reconciling adjustment entitled 'Net income attributable to non-controlling interest'.

Form 10-Q for Fiscal Quarter Ended June 30, 2009

Note 4. Convertible Preferred Stock Investment, page 7

2. We note the disclosures within your Form 10-K for the year ended December 31, 2008 and Form 10-Q for the six months ended June 30, 2009 describing Still River Systems Inc.'s Series D financing, and your subsequent ownership dilution from 5.9% to 3.7%. In addition, we note your disclosures at March 31, 2009 and June 30, 2009 describing an estimated \$1.2 million unrealized loss on your investment, and your determination that the investment is not other-than-temporarily impaired. Your estimate of this unrealized loss constitutes approximately 46% of your cost basis in the investment. We note your ownership interest in Still River's common stock upon conversion of your preferred stock interest has been diluted from 7.6% to 3.7% at June 30, 2009, a 51% decline in ownership stake. Disclosures within your Form 10-K for the year ended December 31, 2007 indicated the anticipated delivery of two Monarch250 proton beam radiation therapy (PBRT) systems in 2009; currently, FDA approval remains pending, while the delivery dates for your Monarch 250 PBRT systems have been delayed to 2010. Please provide for us a comprehensive analysis of why you believe your investment in Still River is not other-than-temporarily impaired. We note your disclosure describing your ability and intent to hold this investment for a reasonable period of time sufficient for a recovery of the cost basis value. Explain to us how you have estimated such a recovery period for your investment, as this security cannot be held to maturity. Describe in detail your evaluation of Still River's financial performance. Clarify if the third party expert hired to assess any impediments to the completion of the prototype unit provided insight to Still River's cash flow. See paragraph 6 of APB 18, FSP FAS 115-1 (FASB ASC paragraphs 320-10-35 to 55) and SAB Topic 5M (FASB ASC paragraphs 320-10-S99) for related guidance.

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

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include all information required under the Securities 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 connection with responding to our comment, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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 filings or in response to our comments on your filings.

You may contact Yolanda Guobadia at (202) 551-3562 or Dave Walz at (202) 551-3358 if you have questions regarding comments on the filing and related matters. Please contact me at (202) 551-3870 with any other questions.

Sincerely,

Tia Jenkins  
Senior Assistant Chief Accountant  
Office of Beverages, Apparel and  
Health Care Services