



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

July 2, 2009

VIA U.S. Mail and Facsimile (801) 407-1641

Dennis P. Gauger
Chief Financial Officer
BSD Medical Corporation
2188 West 2200 South
Salt Lake City, UT 84119

**Re: BSD Medical Corporation
Form 10-K for the fiscal year ended August 31, 2008
Filed November 14, 2008
File No. 001-32526**

Dear Mr. Gauger:

We have reviewed your response dated May 8, 2009 and related filings and have the following comments. Where indicated, we think you should revise your document 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 fiscal year ended August 31, 2008

1. We reference your response to prior comment 1 in our letter dated April 17, 2009. We note that you indicated on the facing sheet of the Form 10-K for fiscal year ended August 31, 2008 that you were both an accelerated filer as well as a smaller reporting company. In addition, we see in your response to comment 1 in our letter dated February 26, 2009 that you determined your status as an accelerated filer at the end of your second fiscal quarter ended February 28, 2007 since the aggregate market value of your common stock held by non-affiliates as of February 28, 2007 was greater than \$75 million, in accordance with Rule 12b-2 of the Exchange Act. As such, if you are other than a smaller reporting company, you should include selected quarterly data in all future filings in accordance with Item 302 of Regulation S-K.

Item 8. Financial Statements and Supplementary Data, page 34

2. We refer to your response to prior comment 2. While the staff of the Division of Investment Management does not necessarily agree with your analysis, the staff notes that you no longer hold 100% of your former investments in the equity income funds and has no further comment on this issue at this time.

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 with your response 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 Kristin Lochhead at (202) 551-3664 or me at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. In this regard, please do not hesitate to contact Brian Cascio at (202) 551-3676 with any other questions. Please contact Mary Beth Breslin at (202) 551-3625 or Tim Buchmiller at (202) 551-3635 if you have any other questions.

Sincerely,

Gary Todd
Reviewing Accountant