



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

Mail Stop 3030

May 27, 2010

Via Facsimile and U.S. Mail

Tarachand Singh  
Chief Financial Officer  
Vasomedical, Inc  
180 Linden Ave.  
Westbury, New York 11590

**Re: Vasomedical, Inc**  
**Form 10-K for the year ended May 31, 2009**  
**Filed August 21, 2009**  
**Forms 10-Q for the quarters ended August 31, 2009, November 30, 2009 and**  
**February 28, 2010**  
**File No. 0-18105**

Dear Mr. Singh:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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 May 31, 2009

Note B – Summary of Significant Accounting Policies, page F-8

Stock-Based Employee Compensation, page F-10

1. We note that you use the Black-Scholes option valuation model to determine the fair value of stock options that you granted. In addition to disclosing the significant assumptions that you used in the model, please revise future filings to also disclose your methodology in determining the inputs you used. Refer to paragraph 718-10-50-2f of the FASB Accounting Standards Codification.

Exhibit 31

2. We note that you have omitted the language “internal control over financial reporting” from the introduction of paragraph 4 of your certifications and have also have omitted paragraph 4(b) from your certifications. The required certifications must be in the exact form prescribed. Please amend your Form 10-K to include certifications that conform to the exact wording required by Item 601(b)(31) of Regulation S-K.

Forms 10-Q for the quarters ended August 31, 2009 and November 30, 2009

Exhibit 31

3. We note that you have omitted the third paragraph from your certifications. The required certifications must be in the exact form prescribed. Please amend your Forms 10-Q for the quarters ended August 31, 2009 and November 30, 2009, to include certifications that conform to the exact wording required by Item 601(b)(31) of Regulation S-K.

Form 10-Q for the quarter ended February 28, 2010

Item 2 . Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 12

Gross Profit, page 20

4. We note that your cost of goods sold for the nine months ended February 28, 2010 includes an adjustment for inventory recovery of \$131,208, based on an engineering evaluation of the obsolete inventory reserve. Please explain to us the nature of this adjustment and your basis for recording it under GAAP. Explain how this accounting complies with SAB Topic 5BB.

Exhibit 31

5. We note that you have replaced the word “registrant” with “small business issuer” throughout your certifications. The required certifications must be in the exact form prescribed. Please revise your certifications in future filings to include certifications that conform to the exact

wording required by Item 601(b)(31) of Regulation S-K. This comment also applies to your Forms 10-Q for the quarters ended August 31, 2009 and November 30, 2009.

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 furnish a cover letter with your amendment 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 amendment and 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 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 comments, 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 filing or in response to our comments on your filing.

You may contact Eric Atallah, Staff Accountant, at (202) 551-3663 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan, Staff Attorney, at (202) 551- 3269, or Tim Buchmiller, Reviewing Attorney, at (202) 551-3635 if you have questions on any other comments. 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