

Mail Stop 6010

January 29, 2007

James A. Wylie, Jr.  
President and Chief Executive Officer  
Diomed Holdings, Inc.  
One Dundee Park  
Andover, MA 01810

**Re: Diomed Holdings, Inc.  
Amendment No. 1 to Registration Statement on Form SB-2  
Filed January 26, 2007  
File No. 333-138605**

Dear Mr. Wylie:

We have limited our review of your filing to those issues we have addressed in our 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.

General

1. Please update your disclosure, as appropriate, given the completion of your most recent fiscal year. For example, you should update your executive compensation disclosure.
2. Please tell us when you intend to amend your other pending registration statements to reflect the changes to the selling shareholders information that you provided in letters to us.

Security Ownership of Certain Beneficial Owners and Management, page 70

3. We note your response to comment 2 in your letter dated December 6, 2006 indicated that you would include the identity of the natural persons who beneficially own the shares held by each of the entities named in the principal stockholders table. Please include that information in your next amendment.

Information Regarding the Selling Stockholders, page 74

4. We note from footnote (v) to your selling stockholders table that Portside Growth and Opportunity Fund appears to be an affiliate of a broker-dealer. If a selling securityholder is an affiliate of a broker-dealer, it must be identified as an underwriter with respect to the securities it is offering for resale unless that selling securityholder is able to make the following representations in the prospectus:
- the seller purchased in the ordinary course of business; and
  - at the time of the purchase of the securities to be resold, the seller had no agreements or understandings, directly or indirectly, with any person to distribute the securities.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. 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 direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso  
Branch Chief

cc: William A. Newman, Esq. (via fax)  
Patrick G. Zabatta, Esq. (via fax)