

Mail Stop 6010

December 21, 2006

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

**Re: Diomed Holdings, Inc.
Registration Statement on Form SB-2
Filed November 13, 2006
File No. 333-138605**

Dear Mr. Wylie:

We have reviewed your letter dated December 6, 2006 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.

General

1. Please expand your response to prior comment 1 to quantify the percentage of outstanding shares held by non-affiliates registered for each group of related selling shareholders. Include in your calculations the shares that the selling shareholders may sell using other registration statements.

Information Regarding the Selling Stockholders, page 74

2. We note your response to prior comment 5. If a selling securityholder is an affiliate of a broker-dealer, it must be identified as an underwriter with respect to

James A. Wylie, Jr.
Diomed Holdings, Inc.
December 21, 2006
Page 2

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.

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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)