



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

January 13, 2010

VIA U.S. MAIL AND FAX (240) 390-0603

Donna A. Lopolito
Chief Financial Officer
Hepalife Technologies, Inc.
60 State Street, Suite 700
Boston, Massachusetts 02109

Re: Hepalife Technologies, Inc.
Form 10-K for the year ended December 31, 2008
Filed March 31, 2009
File No. 000-29819

Dear Ms. Lopolito:

We have reviewed your letter dated December 17, 2009 and have the following comments. Where indicated, we think you should revise your future documents and file requested Form 8-K 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.

Amendment 1 to Form 10-Q for the Quarter Ended June 30, 2009

Explanatory Note

1. We note your response to prior comment 3 where you indicate that your then Chief Financial Officer brought the issue of whether or not an amendment to the company's financial statements was required to the attention of its Chief Executive Officer and "*it was concluded on July 28, 2009 that an amended filing would be required.*" Please note that Form 8-K requires you to file the information required by Item 4.02 within four business days after the registrant's board of directors or the officers of the registrant conclude that any previously issued financial statements should no longer be relied upon because of an error in such financial statements. Further, please note the staff's views provided in the Division of Corporation Finance C&DI on Exchange Act Form 8-K which can be found in Question 101.01 at <http://www.sec.gov/divisions/corpfin/guidance/8-kinterp.htm> and which clearly states that all Item 4.01 and Item 4.02 events must be reported on Form 8-K. Please file the required Item 4.02 of Forms 8-K for all the situations where you concluded that your previously issued financial statements should no longer be relied upon because of an error in those financial statements. Refer to General Instruction B.1 and Item 4.02 of Form 8-K.
2. We note your response to our prior comment 4. In future filings in which you present previously issued financial statements that include corrections of an error, to help investors clearly identify the impact of the restatements, please label all columns that were impacted by the restatement as "Restated".
3. We note that your response letter dated December 17, 2009 was not signed. Please resubmit a signed version of your response letter on EDGAR and ensure that your all future response letters and any other written correspondence with the Staff are appropriately signed. Please refer to Item 302 of Regulation S-T.

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 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.

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You may contact Andri Boerman, Staff Accountant, at (202) 551-3645 or me at (202) 551-3603 if you have any questions regarding these comments. In this regard, do not hesitate to contact Jeff Jaramillo, Accounting Branch Chief, at (202) 551-3212.

Sincerely,

Jay Webb
Accounting Reviewer