

Mail Stop 6010

October 5, 2006

Stephen J. Fanning  
President and Chief Executive Officer  
Thermage, Inc.  
35881 Industrial Boulevard  
Hayward, California 94545

**Re: Thermage, Inc.  
Amendment No. 1 to Registration Statement on Form S-1  
Filed September 21, 2006  
File No. 333-136501**

Dear Mr. Fanning:

We have reviewed your registration statement 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus Cover Graphics

1. We note your response to prior comments 2 and 8. Please revise your disclosure here and elsewhere in your prospectus where you refer to your technology being clinically proven to clarify, if true, that you are referring to your previous procedure protocol and first generation tip.

Our Thermage Procedure, page 2

2. Given that you disclose the conclusions of third-party studies, we are unable to agree with your analysis in your response to prior comment 9. Therefore, we reissue the comment.

Risk Factors, page 8

If we fail to obtain and maintain . . . , page 18

3. We note your response to prior comment 15. With a view toward disclosure, please tell us about any historical recalls of your products, including recalls of your treatment tips.

Management's Discussion and Analysis...., page 33

4. We note your response to prior comment 18 and reissue the comment. We note, for example, statements attributed to Mr. Fanning in a May 11, 2006 *New York Times* article regarding the effect on your business of references to Thermage treatments on a television show.
5. Please disclose the reasons for your historic operating results as clearly, directly and completely as you do in your response to prior comment 20.

Significant Business Trends, page 33

6. We note your response to prior comment 19 and reissue the comment, which sought disclosure regarding the trend toward decreased net revenue from RF generators disclosed on page F-9, not in terms of RF generator revenue relative to ThermoTip revenue. Please address specifically the reasons for decreases in the price of your RF generators.

Critical Accounting Policies and Estimates, page 34

7. Please refer to prior comment 20 and respond to the following comments:
  - With respect to your valuation as of January 1, 2005, please provide additional data to support your assertion that the valuation of the company as of January 1, 2005 is \$4.00 and why that valuation is equivalent to the company's valuation as of May 2003. We note for example that sales for 2003 were only \$24.9 million while sales for 2004 were \$50.4 million. We also note that while sales were lower in 2005, they were still at \$40.7 million and higher than 2003. Your response should a reasonably detailed discussion of your

valuation including the method and significant assumptions used to determine the fair value in accordance with U.S. GAAP.

- Please note that the value you assign to the common stock should represent its fair value as determined under U.S. GAAP. Please provide further information to support your assertion that a linear progression model is consistent with the definition of fair value under U.S. GAAP and why you refer to “relative” fair value in your response and disclosure. Explain how you define “relative” fair value and compare that definition with the definition of fair value under U.S. GAAP. Also, please discuss why you did not use the June 30, 2006 valuation for the entire period from January 1, 2005 through June 30, 2006 if you believe that there have been no significant events between January 1, 2005 and June 30, 2006 that would have caused a significant change in the fair value of your common stock.
- We note from page 42 that your sales in the first two quarters of 2005 were approximately \$11.1 - \$11.7 million and declined in the third and fourth quarters of 2005 to around \$8.5 - \$9.3 million. In the quarters ended March 31, 2006 and June 30, 2006 your sales increased to \$12.4 million and \$14.6 million, respectively. Please discuss why you believe that these sales trends had no corresponding impact on the fair value of your common stock.

Business, page 48

Our Thermage Procedure, page 54

8. We note your response to prior comment 23 and your revised disclosure stating that “the duration and extent of beneficial effect of the Thermage procedure varies from patient-to-patient . . .” Please expand your disclosure to address the typical range of variance you refer to in the first full paragraph on page 55. As requested in prior comment 23, specifically disclose whether the effects of the Thermage procedure are temporary and require repeat treatments to maintain results.

International, page 65

9. We note your response to prior comment 27. Please revise to disclose specific regulatory processes for each jurisdiction that is material to your business.

Management, page 66

10. We note your revisions in response to prior comment 29; however, please also provide us the information requested in the comment.

Consulting Agreement, page 81

11. Please disclose the compensation rate and options mentioned in the agreement.

Financial Statements, page F-1

Note 2 - Summary of Significant Accounting Policies, page F-7

Net Income (Loss) Per Share, page F-12

12. Please refer to prior comment 41. We note your response that the convertible preferred stockholders are entitled to a stated amount per share in dividends “in preference to any dividend payment on common stock.” As such, it would seem that the allocation of earnings for 2004 would need to consider the stated preferred dividend prior and in preference to the division of the remaining earnings on an equal amount per share to both preferred and common stock. For example, Issue 3 of EITF 03-6 specifies that “if an entity could avoid distribution of earnings to a participating security, even if all of the earnings for the year were distributed, then no allocation of that period's earnings to the participating security would be made.” In this case, it appears that you could not avoid a distribution of the stated preferential dividend if you did distribute all of your earnings.

Exhibits

13. We note your response to prior comment 49; however, we continue to notice apparently incomplete exhibits. For example, we note your reference to a document “attached” in the April 14, 1999 letter filed in exhibit 10.9.

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Stephen J. Fanning  
Thermage, Inc.  
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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 supplemental 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.

You may contact at David Burton at (202) 551-3626 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Donald C. Hunt at (202) 551-3647 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso  
Branch Chief

cc (via fax): David Saul, Esq., Wilson Sonsini Goodrich & Rosati, P.C.