



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

September 11, 2009

John R. Barr
President and Chief Executive Officer
AGA Medical Holdings, Inc.
5050 Nathan Lane North
Plymouth, MN 55442

**Re: AGA Medical Holdings, Inc.
Registration Statement on Form S-1
Amended August 31, 2009
File No. 333-151822**

Dear Mr. Barr:

We have reviewed your filing 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.

Our Business, page 1

1. Please summarize the Medtronic litigation in your prospectus summary.

Liquidity and Capital Resources, page 66

2. We reference the discussion on page 66 of the \$10.1 million increase in accounts receivable for the six-months ended June 30, 2009. We also note the increase in accounts receivable of \$15.2 million in the statements of cash flows. Please tell us the reason for the difference in these amounts.

Corporate History, page 84

3. Please expand your response to prior comment 2 to tell us in detail the nature and history of the dispute and related lawsuit and how the claims were resolved. Also provide us your analysis of (1) whether the parties were promoters, citing all authority on which you rely, and (2) why you believe more detailed disclosure is not required in your prospectus given the requirements cited in the previous comment and Rule 408.

AMPLATZER Vascular Grafts, page 91

4. Please expand the revisions in response to prior comment 1 to address the delay represented by the previously changed dates in the penultimate paragraph of this section.

Medtronic Litigation in the United States, page 101

5. With a view toward clarified disclosure, please tell us how, given the nature of the patents that were the subject of the litigation, changes that “will not affect product design” will eliminate claims for ongoing royalty payments.

Note 11. Litigation, page F-32

6. We reference your discussion in Note 11 and on pages 50 and 51 of Management’s Discussion and Analysis of the patent infringement action filed against you by Medtronic. We also note that the jury verdict on August 5, 2009 awarded Medtronic damages of \$57.8 million. You disclose that this amount is equal to 11% of historical sales of the occluder and vascular plug products in question during the timeframe specific for each patent. You also indicate that any infringement after March 31, 2009 to the date of a final, non-appealable judgment will be considered in calculating the final amount of damages, if any to be paid. Please clarify whether the 11% verdict also applies to future sales of your products, and provide us your estimate of the amount of possible additional damages over the life of the patent.
7. In addition, disclose why the verdict is not enforceable pending the completion of the trial and entry of a final, non-appealable judgment as indicated in your filing. Please also clarify why you believe that the trial court will reduce the jury’s damage award by approximately \$14 million to reflect the recent decision in Cardiac Pacemakers v. St. Jude Medical and indicate how you determined this amount. Please also discuss the “non-jury phase” scheduled for early December 2009 and how this could impact the jury verdict of \$57.8 million.

8. We also note your discussion on page 51 that you are in the process of implementing changes to your business processes that you expect will eliminate claims by Medtronic for ongoing royalty payments on future sales but will not affect product design. Please discuss any impact that you expect these changes will have on future sales of your products.
9. Please disclose why you believe that the final judgment will not prevent continued marketing or sale of any of your products as discussed on page 51.
10. We note your discussion on page F-33 that since the ultimate judgment is uncertain as to the asserted claims, counterclaims and damages, if any, you have not recorded any accrual under SFAS No. 5. Please provide us your analysis of how you determined that an accrual was not necessary at this time considering the recent jury verdict and indicate how you considered the guidance in FASB ASC 450-20-25 in arriving at this conclusion.

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 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 Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

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- the company may not assert staff comments and the declaration of effectiveness 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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

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 Jeanne Bennett at (202) 551-3606 or in her absence, Brian Cascio at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via fax): John B. Tehan, Esq.
Kenneth B. Wallach, Esq.