

October 27, 2008

Mail Stop 6010

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  
Filed October 10, 2008  
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.

Risk Factors, page 10

1. We note the changes to the timetable in the chart on page 77. With a view toward disclosure in an appropriate section of your document, please tell us the reasons for the delay.

Contractual Obligations, page 63

2. We note your response to prior comment 4. Please tell us how you determined that Mr. Amplatz would be seeking only future additional financial compensation. Also, if the dispute is related to the incomplete contract mentioned in response to prior comment 17, please say so directly in your disclosure.

Compensation Discussion and Analysis, page 107

3. We note your response to prior comment 7. However, if your consultant's report reveals material information regarding the named executives' compensation – when compared against the benchmark or otherwise – it is unclear how you determined that additional disclosure is not necessary. Please revise or advise.

Annual Cash Incentive Payments, page 111

4. We note your response to the first bullet point in comment 8. While your executive compensation evaluation may go “beyond the ratings against the Corporate Top Ten Objectives” as you describe in your response, it is unclear how performance targets are not a material element of your executive compensation policies or decisions. Please revise or advise.
5. Please reconcile your disclosure that you met your target timetable for coming into compliance with Section 404 of the Sarbanes-Oxley Act in 2007 with your disclosure on page 19 that appears to indicate that compliance remains a material risk.

Principal and Selling Stockholders, page 129

6. We are not able to agree with your analysis described in response to prior comment 12. Beneficial ownership must be attributed to all individuals who share voting and investment power. Please revise accordingly.
7. We note your response to prior comment 14. Please tell us how the numbers in clause E of footnote 1 are reconcilable to the shares identified by footnotes 8-11.

Underwriting, page 144

8. We note you will respond to prior comment 16 in future filings and we will evaluate it at that time.

Exhibits

9. We are unable to agree with your conclusions in response to prior comment 17 that you can omit information based on the reasons you cite. If you wish to omit information from documents required to be filed as exhibits, please comply with Rule 406.

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
- 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.

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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.