



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

Mail Stop 3030

October 9, 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 October 5, 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.

Principal and Selling Stockholders, page 153

1. Refer to your response to prior comment 3 and to footnote 3 of the table in this section. Please tell us the authority on which you rely to not disclose a specific number of shares to be sold by each selling stockholder.
2. Refer to footnote 4. Please tell us why you disclose the Gougeon Trust's holdings including your Class A shares while, according to the first paragraph of this section, you disclose the other stockholders' holdings on an as-converted basis.

Exhibit 4.1

3. Please tell us which exhibit represents the April 21, 2008 New Purchase Agreement mentioned on page 4 of this exhibit and the July 25, 2005 Original Purchase Agreement mentioned on page 5. Also tell us where you disclosed the terms of those agreements.
4. Please tell us where you disclose the facts and circumstances mentioned in the report cited in section 4.05(viii) of this exhibit. Identify in your response what issues remain subject to potential “settlement, admission of liability or other concession.”

Exhibit 5.1

5. Please file an opinion that addresses all shares included in the fee table.
6. We note the statement in the opinion that the pricing committee must authorize and approve the issuance of the shares, not merely the price of the shares. Please tell us why this condition is necessary and appropriate for the opinion required by Regulation S-K Item 601(b)(5), whether the condition essentially assumes away a conclusion of law which is a necessary requirement of the ultimate legality opinion, and whether the board has authorized and approved the issuance of the shares.
7. We note that the opinion is conditioned on filing your certificate of incorporation. Please tell us whether you intend to file an opinion that removes this condition before the effective date of the registration statement. If not, please tell us why you believe it is appropriate for your registration statement to be declared effective permitting you to sell securities if you are not authorized to issue the securities.
8. Please file an opinion that clarifies whether the “definitive underwriting agreement” is identical in all material respects to the exhibit filed with your registration statement.

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.

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.

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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.