



DIVISION OF
CORPORATION FINANCE

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

December 27, 2012

Via E-mail

Gary A. Schuman
Chief Financial Officer
Integrated Surgical Systems, Inc.
401 Wilshire Blvd., Suite 1020
Santa Monica, California 90401

**Re: Integrated Surgical Systems, Inc.
Form 10-K for the fiscal year ended December 31, 2011
Filed March 28, 2012
File No. 001-12471**

Dear Mr. Schuman:

We have reviewed your response dated December 12, 2012 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2011

Item 1. Business, page 3

1. We note your response to prior comment 1; however, because the sale of ClearSign shares to you and subsequent dividend of those shares to your shareholders appears to have been part of a distribution of ClearSign shares to the public, it appears that you and your shareholders were statutory underwriters of that distribution. In addition, it is not clear how you determined that the dividend of ClearSign shares to your shareholders was properly registered as a valid secondary offering of those shares, such that they are tradable "without restriction." We note in this connection that the prospectus disclosure (1) did not clearly indicate that the dividend was the transaction being registered, even though the prospectus suggested that a dividend might occur, and (2) omitted information that would have been required for a secondary offering of this nature, such as the identification of the selling shareholders as underwriters and required Regulation S-K Item 507 disclosure. Please provide additional analysis addressing why you believe that,

even considering these facts, the transaction complied with Section 5 or, if you are unable to provide such analysis, revise future filings as appropriate to discuss any material impacts.

Item 8. Financial Statements and Supplementary Data, page 20

2. We note that your response to prior comment 2 presents an analysis limited to your investment in ClearSign Combustion shares, rather than all of the assets that should be considered “investment securities.” Given the proportion of your remaining assets that are held in “available-for-sale securities” *other than* your prior investment in ClearSign, please expand your analysis to address why you should not be considered an investment company within the meaning of Section 3 of the Investment Company Act of 1940.

Response Letter dated December 12, 2012

3. As requested in the second to last paragraph of our letter dated November 28, 2012, please provide please provide a written statement from the *company* acknowledging that:
 - the company is responsible for the adequacy and accuracy of the disclosure in the filing;
 - staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
 - the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

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You may contact Kristin Lochhead at (202) 551-3664 or Gary Todd at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Mary Beth Breslin at (202) 551-3625 or Geoff Kruczek at (202) 551-3641 with any other questions.

Sincerely,

/s/ Geoffrey Kruczek for

Amanda Ravitz
Assistant Director

cc: Andrew Hudders (via E-mail)