



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

December 8, 2008

Via U.S. Mail and Facsimile

Mr. Fabian Tenenbaum
Chief Financial Officer
Syneron Medical Ltd.
Industrial Zone, Yokneam Illit, 20692
P.O.B. 550, Israel

Re: Syneron Medical Ltd.
Form 20-F for the Year Ended December 31, 2007
Filed May 7, 2008
File No. 000-50867

Dear Mr. Tenenbaum:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your document in future filings 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.

Form 20-F as of December 31, 2007

Consolidated Financial Statements, page F-1

Note 1.C. – General, page F-12

1. We note you used an independent third party appraisal to assist in determining the allocation of the purchase price of Light Instruments Ltd. While in future filings, management may elect to take responsibility for the purchase price allocation, please note that if you continue to refer to the work of the third party in a Form 20-F that is incorporated by reference into a registration statement, you may be required to obtain and include a consent from the third party. Refer to Compliance and Disclosure Interpretation 141.02, available at our website at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>.

Note 17 – Major Geographic Information, page F-46

2. Please revise future filings to disclose the basis for attributing revenues from external customers to individual countries. Refer to paragraph 38(a) of SFAS 131.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter 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 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 Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a 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.

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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 our review of your filing or in response to our comments on your filing.

You may contact Lynn Dicker, Staff Accountant, at (202) 551-3616 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact me or Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any questions.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief