

Mail Stop 4561

August 13, 2007

VIA U.S. MAIL AND FAX 972-3-608-6050

Shimon Yitzhaki
President
Elbit Medical Imaging Ltd.
2 Weizman St.
Tel-Aviv 64239
ISRAEL

Re: Elbit Medical Imaging Ltd.
File No. 000-28996
Form 20-F for Fiscal Year Ended
December 31, 2006

Dear Mr. Yitzhaki:

We have reviewed your filing and have the following comments. In 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 on 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 for the year ended December 31, 2006

Consolidated Financial Statements

Note 14 – Long-Term Liabilities

1. We note that your subsidiary, Insightec, issued convertible debentures in 2004 and 2006. Furthermore, based on the formula used to calculate the conversion price of the debt, it appears that the maximum number of shares required to fully settle the conversion feature may be indeterminate. Explain to us how you have applied the guidance in SFAS 133 and paragraph 20 of EITF 00-19 in determining that it would not be necessary bifurcate the conversion feature from the host instrument for purposes of applying US GAAP. In your response, tell us whether the holders of the notes currently have the option to convert the debt into shares of Insightec.

Note 25 – Material Differences Between Israeli GAAP and U.S. GAAP and their effect of the Consolidated Financial Statements

B. The effect of the material differences between Israeli GAAP and U.S. GAAP on the Financial Statements

1. Statements of operations

2. Explain to us why you have not classified the operations of commercial centers sold during the year (including the related gain) nor the operations of your trading properties as discontinued operations for purposes of reconciling your Statement of Operations for the year ended December 31, 2006 to U.S. GAAP. Reference is made to SFAS 144. Additionally, tell us how you determined it would be appropriate to classify acquisition and/or construction costs related to trading properties within cash flows from operating activities for U.S. GAAP.

* * * *

Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing your response to our comment.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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 filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

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 filings or in response to our comments on your filings.

You may contact Robert Telewicz, Staff Accountant, at (202) 551-3438 or the undersigned at (202) 551-3629 if you have questions.

Sincerely,

Kevin Woody
Accounting Branch Chief