



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

January 23, 2009

VIA U.S. MAIL AND FAX (631) 694-3761

Richard Zaremba
Chief Financial Officer
Misonix, Inc.
1938 New Highway
Farmingdale, New York 11735

Re: Misonix, Inc.
Form 10-K for the year ended June 30, 2008
Filed September 26, 2008
File No. 001-10986

Dear Mr. Zaremba:

We have reviewed your filings 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 document. 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.

Form 10-K for the year ended June 30, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 18

Results of Operations – Other Income, page 21

1. We refer to the loss from the sale of equipment included in other income for fiscal year 2007. We generally believe that gains and losses resulting from write-down or sale of assets previously used in operations should be classified as operating items in the income statement. This treatment appears consistent with the guidance prescribed by SFAS 144, as well. Accordingly, in future filings please classify these items in the operating section of the income statement.

2. Acquisitions, page F-12

UKHIFU Limited, page F-14

2. We note that you acquired a 60% equity position in UKHIFU Limited on March 27, 2006. Please explain how you accounted for this acquisition including the significant terms and purchase price. We note that you made payments of \$50,000 and \$60,000 to Imaging Equipment in fiscal years 2008 and 2007 and these payments were recorded as goodwill. Please tell us the facts and the circumstances behind these payments and why recording as goodwill was appropriate. Cite the applicable U.S. GAAP that you relied upon to record this acquisition. Revise your disclosure in future filings to address our concern as well.

Form 10-Q for the quarter ended September 30, 2008

Note 5. Focus Surgery, Inc.

3. We note that you recorded a gain of \$1,516,866 in other income during the three months ended September 30, 2008. We also note that your investment in Focus for both debt and equity were written down in 2001 as a result of both debt and equity being deemed impaired and you have carried the balance sheet at zero value since 2001. Please address the following:
 - Tell us about your obligation to provide financial support under the development and manufacturing agreements you entered into with Focus. We note that you continued to make loans to Focus after you wrote the investment to zero in 2001. We also note the balance of the debt owed to you at March 31, 2008 was approximately \$1.3 million. Tell us your consideration of paragraph 19(i) of APB 18, which states that if the investor has otherwise become committed to provide

financial support to the investee, future suspension of equity method losses would be prohibited.

- Regarding the gain of \$1.5 million recorded, please clarify if the gain offsets previously unrecognized losses. Refer to the guidance in paragraph 19(i) of APB 18.
- We note you sold your investment in Focus to USHIFU. Please clarify if USHIFU is related to UKHIFU, your 60% owned subsidiary.
- We may have additional comments after reviewing your response.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. 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 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.

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.

Richard Zaremba
Misonix, Inc.
January 23, 2009
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You may contact Andri Boerman, Staff Accountant, at (202) 551-3645 or me at (202) 551-3554 if you have any questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Angela Crane
Branch Chief