



DIVISION OF
CORPORATION FINANCE

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

October 13, 2011

Michael Braunold
Chief Executive Officer
SPO Medical Inc.
3, Gavish Street, POB 2454
Kfar Saba, Israel

**Re: SPO Medical Inc.
Form 10-K for the year ended December 31, 2010
Filed April 14, 2011
File No. 000-11772**

Dear Mr. Braunold:

We have reviewed your filing 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the year ended December 31, 2010

Item 9A(T). Controls and Procedures, page 26

1. We note that you conduct a significant portion of your operations outside of the United States. In order to enhance our understanding of how you prepare your financial statements and assess your internal control over financial reporting, we ask that you provide us with information that will help us answer the following questions.

How do you evaluate and assess internal control over financial reporting?

- Please describe the process you used to determine whether internal control over financial reporting effectively considered controls to address financial reporting risks that are relevant to all locations where you have operations.
- If you have an internal audit function, please describe it and explain how, if at all, that function impacted your evaluation of your internal control over financial reporting.

How do you maintain your books and records and prepare your financial statements?

- If you maintain your books and records in accordance with U.S. GAAP, describe the controls you maintain to ensure that the activities you conduct and the transactions you consummate are recorded in accordance with U.S. GAAP.
- If you do not maintain your books and records in accordance with U.S. GAAP, tell us what basis of accounting you use and describe the process you go through to convert your books and records to U.S. GAAP for SEC reporting. Describe the controls you maintain to ensure that you have made all necessary and appropriate adjustments in your conversions and disclosures.

Who is involved in your financial reporting?

We would like to understand more about the background of the people who are primarily responsible for preparing and supervising the preparation of your financial statements and evaluating the effectiveness of your internal control over financial reporting and their knowledge of U.S. GAAP and SEC rules and regulations. Without identifying people by name, for each person, please tell us:

- what role he or she takes in preparing your financial statements and evaluating the effectiveness of your internal control;
- what relevant education and ongoing training he or she has had relating to U.S. GAAP;
- the nature of his or her contractual or other relationship to you;
- whether he or she holds and maintains any professional designations such as Certified Public Accountant (U.S.) or Certified Management Accountant; and
- about his or her professional experience, including experience in preparing and/or auditing financial statements prepared in accordance with U.S. GAAP and evaluating effectiveness of internal control over financial reporting.

If you retain an accounting firm or other similar organization to prepare your financial statements or evaluate your internal control over financial reporting, please tell us:

- the name and address of the accounting firm or organization;
- the qualifications of their employees who perform the services for your company;
- how and why they are qualified to prepare your financial statements or evaluate your internal control over financial reporting;
- how many hours they spent last year performing these services for you; and
- the total amount of fees you paid to each accounting firm or organization in connection with the preparation of your financial statements and in connection with the evaluation of internal control over financial reporting for the most recent fiscal year end.

If you retain individuals who are not your employees and are not employed by an accounting firm or other similar organization to prepare your financial statements or evaluate your

internal control over financial reporting, do not provide us with their names, but please tell us:

- why you believe they are qualified to prepare your financial statements or evaluate your internal control over financial reporting;
- how many hours they spent last year performing these services for you; and
- the total amount of fees you paid to each individual in connection with the preparation of your financial statements and in connection with the evaluation of internal control over financial reporting for the most recent fiscal year end.

Do you have an audit committee financial expert?

We note that you have identified Ms. Pauline Dorfman as your audit committee financial expert in your filing. Please describe her qualifications, including the extent of her knowledge of US GAAP and internal control over financial reporting.

2. Additionally we note your disclosure that in connection with your restructuring you revised and improved your internal control processes. Please explain to us the specific actions and changes that you implemented in your internal controls over financial reporting. In addition please revise future filings to provide any disclosures required by Item 308(c) of Regulation S-K.

Note 10 – Private Placements, page F-15

Issuance of Common Stock, page F-16

3. We note that the warrants you issued in conjunction with your July 29, 2010 offering were accounted for as derivative liabilities. Please explain to us the valuation methodology and any significant assumptions you used for valuing these warrants at issuance and at December 31, 2010. Revise future filings to provide all of fair value disclosures required by FASB ASC section 820-10-50.

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.

In responding to our comments, 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

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- 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.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Martin F. James, Senior Assistant Chief Accountant at (202) 551-3671 with any other questions.

Sincerely,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief