



DIVISION OF
CORPORATION FINANCE

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

August 6, 2010

Robert D. Hansen
Co-Founder, Chairman and Chief Executive Officer
Electromed, Inc.
500 Sixth Avenue NW
New Prague, Minnesota 56071

Re: Electromed, Inc.
Registration Statement on Form S-1
Amendment filed July 22, 2010
File No. 333-166470

Dear Mr. Hansen:

We have reviewed your amended registration statement and supplemental response and have the following comments. In our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe the amendment is appropriate, please tell us why in your response.

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

1. We note that your most recent fiscal year ended on June 30, 2010 and that financial statements for that fiscal year are not included in your registration statement. However, given the passage of time since the end of that year, please confirm that preliminary financial information is not available to you or has not been published regarding the company's financial condition as of June 30, 2010 and results of operations for the fiscal quarter and fiscal year then ended. If financial information is available, please update your prospectus as appropriate to include this information and disclose material changes to the company's financial condition as of June 30, 2010 and any material changes to the company's results of operations that occurred during the fourth quarter of the company's 2010 fiscal year. Please note that any preliminary information should be presented in accordance with Item 10(b)(2) of Regulation S-K. If there are no such material changes or trends to report, please provide us a representation to that effect in response to this comment.

Robert D. Hansen
Electromed, Inc.
August 6, 2010
Page 2

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the Company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Ruairi Regan at (202) 551-3269 or Tim Buchmiller, senior attorney, at (202) 551-3635 with any questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (by facsimile): Ryan C. Brauer, Esq.
Elizabeth M. Dunshee, Esq.