



DIVISION OF
CORPORATION FINANCE

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

July 31, 2012

Via E-Mail

Michael J. Tokich
Senior Vice President and Chief Financial Officer
STERIS Corporation
5960 Heisley Road,
Mentor, Ohio 44060-1834

**Re: STERIS Corporation
Form 10-K for the year ended March 31, 2012
Filed May 29, 2012
File No. 1-14643**

Dear Mr. Tokich:

We have reviewed your filing and have the following comment. 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 providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances please tell us why in your response.

After reviewing the information you provide in response to this comment, we may have additional comments.

Form 10-K for the year ended March 31, 2012

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 24

Critical Accounting Policies, Estimates and Assumptions, page 45

SYSTEM 1 Rebate Program, page 48

1. We note that based on your actual experience to date, you revised your estimate of eligible customers that would participate in the Rebate Program. Please provide more details regarding how you determined your 83% rebate participation rate, including any significant assumptions and uncertainties. Revise future filings as necessary.

Michael J. Tokich
STERIS Corporation
July 31, 2012
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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
- 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 Lynn Dicker, Reviewing Accountant at (202) 551-3616 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact me at (202) 551-3643 with any questions.

Sincerely,

/s/ Lynn Dicker for

Kevin L. Vaughn
Accounting Branch Chief