



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

Mail Stop 3030

August 20, 2009

Via Facsimile and U.S. Mail

Mr. Charles S. Rhoades
Chief Executive Officer
Satcon Technology Corporation
27 Drydock Avenue
Boston, Massachusetts 02210

Re: Satcon Technology Corporation
Form 10-K for the Year Ended December 31, 2008
Filed March 12, 2009
Form 10-Q for the Quarter Ended July 4, 2009
File No. 001-11512

Dear Mr. Rhoades:

We have reviewed your filings and your response letter dated August 11, 2009 and we have the following comments. Where indicated, we think you should revise your documents in future filings in response to this comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. 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 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 December 31, 2008

Significant Customers, page 9

1. We note your responses to prior comments 1 and 2. It remains unclear how you determined that the loss of one of your two largest customers would not have a material adverse effect. Please expand your analysis to clearly explain how you determined that the loss of such a customer would not have a material adverse effect. Include in your analysis the percentage of revenues for customers 1-4 in each of fiscal years 2007, 2008 and 2009.

Form 10-Q for the quarter ended July 4, 2009

Note C - Warrant Liabilities, page 15

2. We note that on July 3, 2009, you modified certain provisions contained within your Series C Preferred Stock Warrants. We further note that as a result of the modification that you reclassified approximately \$25.2 million from derivative liability to equity. Please address the following:
 - Revise future filings to clearly disclose the material terms of any warrant modifications.
 - Provide us with your analysis of the modified warrants that supports your change in classification from a derivative liability to equity. Refer to section 815-40 of the FASB Accounting Standards Codification.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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You may contact Eric Atallah, Staff Accountant, at (202) 551- 3663 or me at (202) 551- 3639 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan, Staff Attorney, at (202) 551- 3269, or Dan Morris, Special Counsel, at (202) 551-3637 if you have questions on any other comments. In this regard, do not hesitate to contact me or Kevin Vaughn, Accounting Branch Chief, at (202) 551- 3643 with any questions.

Sincerely,

Tara L. Harkins
Reviewing Accountant