



DIVISION OF  
CORPORATION FINANCE

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

July 12, 2011

Via E-mail

Mr. James A. Simms  
Chief Financial Officer  
Vicor Corp.  
25 Frontage Road  
Andover, MA 01810

**Re: Vicor Corp.  
Form 10-K for the Fiscal Year Ended December 31, 2010  
Filed March 3, 2011  
File No. 0-18277**

Dear Mr. Simms:

We have reviewed your filing 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 documents. 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 comments apply to your facts and circumstances, please tell us why in your response.

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

Form 10-K for Fiscal Year Ended December 31, 2010

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 23

Year ended December 31, 2010 compared to Year ended December 31, 2009, page 28

1. We note your disclosure of sales by segment and the segment information provided in footnote 16 of the financial statements. In future filings please provide a discussion of the profitability and cash needs of your segments or tell us why such discussion is not required. Refer to Section 501.06.a of the Financial Reporting Codification.

Notes to Consolidated Financial Statements, page 42

Note 2 - Significant Accounting Policies, page 42

Inventories, page 44

2. You have disclosed risks of additional production capacity on page 15. In future filings please expand your accounting policy to address your treatment of fixed production overheads. Refer to paragraphs 330-10-30-1 through 8 and 330-10-50-1 of the FASB Accounting Standards Codification.

Note 15 – Commitments and Contingencies, page 66

3. We note your disclosures related to your various outstanding litigation. To the extent you have any loss contingencies for which you have not recorded accruals or for which exposure to loss exists in excess of the amount accrued, please revise your disclosures to include the disclosures required by paragraph 450-20-50-4 of the FASB Accounting Standards Codification.

Evaluation of disclosure controls and procedures, page 71

4. You state that your disclosure controls and procedures are reasonably effective. In future filings, please revise your conclusion to state, if true, that your disclosure controls and procedures are effective at the reasonable assurance level. Refer to SEC Release Number 33-8238, Section II.F.4.
5. We note your disclosure regarding your officers' conclusions about the effectiveness of the Company's disclosure controls and procedures. We note that the language that appears after your conclusion differs from the definition of disclosure controls and procedures as set forth in Rule 13a-15(e) of the Exchange Act. While you are not required to include the definition of disclosure controls and procedures, when you do, all of the language must be consistent with the language that appears in the two-sentence definition of "disclosure controls and procedures" set forth in Rule 13a-15(e) of the Exchange Act. Please revise future filings to either include the full two-sentence definition or to remove the definition.

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.

Mr. James A. Simms  
Vicor Corp.  
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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 Gary Newberry, Staff Accountant, at (202) 551-3761 or Lynn Dicker, Reviewing Accountant, at (202) 551-3616 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Lynn Dicker for

Kevin L. Vaughn  
Accounting Branch Chief