



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

DIVISION OF
CORPORATION FINANCE

December 1, 2011

Mr. R. Scott Huennekens
President and Chief Executive Officer
Volcano Corporation
3661 Valley Centre drive, Suite 200
San Diego, California 92130

**Re: Volcano Corporation
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 1, 2011
File No. 0-52045**

Dear Mr. Huennekens:

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 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 the Fiscal Year Ended December 31, 2010

Management Discussion and Analysis of Financial Condition and Results of Operations, page 46

Comparison of Years Ended December 31, 2010 and 2009, page 54

1. We note your disclosures on page 22 that fluctuations in foreign currency exchange rates could impact your revenues and earnings. If material, please revise future filings to quantify the effect of foreign currency fluctuations on your results of operations.
2. We refer to your discussion of revenues for the year ended December 31, 2010. You state that increases in revenues were realized across all of your geographic markets. However, we note that the increase in revenue in Japan (51%) was significantly larger than the increase in revenue in your other markets. Please revise future filings to provide greater discussion of any trends relating to any of your markets.

Off-Balance Sheet Arrangements and Other Contractual Obligations, page 61

3. Please explain to us why your contractual obligations table does not include your 2.875% Convertible Senior Notes. Refer to Item 303(A)(5) of Regulation S-K. Revise future filings as appropriate.
4. Further to the above, please explain to us how your contractual obligations table considers the impact of the clinical research support agreements discussed in Note 4 on page 101.

Notes to Consolidated Financial Statements, page 77

Note 2 – Acquisitions. Page 85

Novelis Acquisition, page 86

5. With regard to the \$3 million milestone payment that was accrued in 2009, please tell us more about the factors that led to your conclusion an accrual was necessary as of December 31, 2009. Discuss how you considered the guidance in section 450-20-20 and paragraph 450-20-25-2 of the FASB Accounting Standards Codification.
6. Further to the above, please tell us more about the factors that led to the conclusion that approval would not occur by December 31, 2010. In this regard, we note from page 52 of your December 31, 2009 Form 10-K that as of December 31, 2009, your total estimated costs to complete the FLIVUS product had increased to \$8.2 million compared to an estimated cost to complete as of the acquisition date of \$3.9 million. We further note from your disclosures on page 52 of this Form 10-K that the total estimated costs to complete have increased further, to \$15.6 million, as of December 31, 2010. Discuss why the estimated costs to complete increased from the acquisition date to December 31, 2009 and also from December 31, 2009 to December 31, 2010.
7. With regard to the reversal in 2010, please tell us more regarding the basis for this reversal. In this regard, clarify whether there are circumstances in which you may still be required to pay the milestone payment. For example, although the original 510(k) application expired, we note that you could file a new application which could then be approved. Explain whether such a circumstance would result in you being required to make the milestone payment.

Convertible Debt, page 96

8. We note your disclosure that the Convertible Senior Notes are “subject to adjustments for certain events.” Please tell us the nature and terms of these potential adjustments and

clarify how these provisions do not necessitate liability classification for the embedded conversion feature.

Note 4 – Commitments and Contingencies, page 98

Commitments and other contractual obligations, page 101

9. Please tell us why the Termination Payment to Fukuda is an intangible asset and how your assessment changed from the announcement of this agreement in Form 8-K filed September 21, 2010 wherein you stated that such payment would be expensed in the fourth quarter of 2010.

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 Gary Newberry at (202) 551-3761 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant at (202) 551-3671.

Sincerely,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief