



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

December 10, 2007

Mr. Kirk Misaka
Chief Financial Officer
Zhone Technologies, Inc.
7001 Oakport Street
Oakland, California 94621

Re: Zhone Technologies, Inc.
Form 10-K for Fiscal Year Ended December 31, 2006
Filed March 8, 2007

Forms 10-Q for Fiscal Quarters Ended September 30, 2007
File No. 0-32743

Dear Mr. Misaka:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Please address the following comments in future filings. If you disagree, we will consider your explanation as to why our comment is inapplicable or a future revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not 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 on 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 Fiscal Year Ended December 31, 2006

(1) Organization and Summary of Significant Accounting Policies, page 49

(j) Concentration of Risk, page 52

1. We note that during the year ended December 31, 2006 you sold \$10.3 million of customer receivables to financial institutions on a non-recourse basis. Tell us how you considered paragraph 17 of SFAS 140. Please expand your disclosure as necessary.

(k) Property and Equipment, page 52

2. We note your disclosure that the useful lives for laboratory and manufacturing equipment range from 10 to 30 years. Please tell us and quantify the equipment that has a useful life of 25-30 years. Tell us why you believe 25-30 years is appropriate. Refer to your basis in accounting literature.

(5) Debt, page 61

Secured Real Estate Loan, page 61

3. Tell us in detail how you considered EITF 96-19 regarding your December 2005 amendment to an existing loan with a financial institution relating to the financing of your Oakland, California campus.

Form 10-Q for the Fiscal Quarters Ended September 30, 2007

(3) Long-Lived Assets, Goodwill and Other Acquisition-Related Intangible Assets, page 8

4. We note that in July 2007 you sold some of your previously impaired non-strategic patents for a gain of \$5.0 million, which was recorded within operating income. Tell us specifically when these assets were impaired and how you determined the amount of the impairment. In addition, tell us why you believe the gain on the sale of these assets should be classified in operating income versus in other income. Refer to your basis in accounting literature.

(4) Inventories, page 8

Sale of Legacy Inventory and Other Assets, page 9

5. We note that upon the performance of certain obligations and delivery of the assets in the first quarter of 2007, you recognized a gain of \$1.8 million that was recorded in cost of revenue. Tell us why you believe it was appropriate to record the gain in cost of revenue versus other income for the sale of assets.

General and Administrative, page 20

6. We note that your decrease in general and administrative expenses was the result of the reversal of certain contingent liabilities in the third quarter of 2007... the reversal of certain liabilities for the first quarter of 2007, and a favorable legal settlement in the second quarter of 2007. With regard to these specific items, tell us the specific dollar amounts related to these items. Tell us when these liabilities were recorded and why you believed they needed to be reversed during their respective reversal periods. In future filings, please quantify all items discussed in your results of operations.

* * * *

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

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and

Mr. Kirk Misaka
Zhone Technologies, Inc.
December 10, 2007
Page 4

- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Inessa Kessman, Senior Staff Accountant, at (202) 551-3371 or Kyle Moffatt, Accountant Branch Chief, at (202) 551-3836 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel
Assistant Director