



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3720

August 14, 2008

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

RE: Zhone Technologies
Form 10-K for the year ended December 31, 2007
Filed March 6, 2008
File No. 000-32743

Dear Mr. Misaka:

We have limited our review of your filing to those issues we have addressed in our comments. If you disagree with a comment, we will consider your explanation as to why it is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

In some comments, we have asked you to provide us with additional information so we may better understand your disclosure. You should comply with the remaining comments in future filings, as applicable. Confirm in writing that you will do so and also explain to us how you intend to comply. Please do so within the time frame set forth below. Please understand that after our review of your responses, we may raise additional comments.

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, 2007

Definitive Proxy Statement Incorporated By Reference Into Part III of Form 10-K

Compensation Discussion and Analysis, page 15

1. Throughout your compensation discussion and analysis and as to each compensation element, disclose how the compensation committee arrived at and why it paid each of the particular levels and forms of compensation for each named executive officer. For example, you state on page 18 that the compensation committee considers several internal factors in determining the size of the long-term equity incentives to be awarded. However, you do not analyze how the committee's consideration of these factors resulted in the options awarded to each named executive officer. Please expand your discussion and analysis regarding the compensation awarded to each named executive compensation in future filings.
2. Your compensation discussion and analysis should be sufficiently precise to identify material differences in compensation policies for individual officers. In this regard, we note the significantly different amounts paid to each of the named executive officers as salary and option awards. In future filings, please supplement your disclosure to explain in more detail the reasons for the differences in the amounts of compensation awarded to the named executive officers.

Summary Compensation Table, page 21

3. We note amounts reported for Messrs. Fischer and Scheck for 2006 and 2007 under the "Non-Equity Incentive Plan Compensation" column of the summary compensation table. In your response letter, tell us why there is no disclosure under the 2007 Grants of Plan-Based Awards table for non-equity incentive plan awards. In addition, expand your compensation discussion and analysis in future filings to discuss how the amount of this non-equity compensation earned by Messrs. Fischer and Scheck was determined under the sales management compensation plan.

Outstanding Equity Awards at 2007 Fiscal Year-End, page 23

4. We note the disclosure in the footnotes to the table regarding the vesting schedules of options; however, unless you provide the grant dates of the options for footnotes (1) and (5), it is not possible to determine the vesting dates of options held at fiscal-year end. Please confirm that you will provide sufficient information to comply with Instruction 1 to Item 402(f)(2) of Regulation S-K in the future.

Potential Payments Upon Termination, page 25

5. Please briefly define “cause” and “good reason” under Mr. Ejabat’s employment agreement so that shareholders may understand under what circumstances Mr. Ejabat is entitled to compensation upon termination.

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. Detailed letters greatly facilitate our review. Please file your letter over EDGAR. 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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
- 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.

Please contact Kathleen Krebs, Special Counsel, at (202) 551-3350, or me at (202) 551-3810 with any questions.

Sincerely,

Larry Spigel
Assistant Director