



DIVISION OF
CORPORATION FINANCE

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

April 18, 2011

Mr. Kevin Purcell
Vice President and CFO
Aerosonic Corporation
1212 North Hercules Avenue
Clearwater, Florida 33765

**Re: Aerosonic Corporation
Form 10-K for the year ended January 31, 2010
Definitive Proxy Statement on Schedule 14A
File No. 001-11750**

Dear Mr. Purcell:

We have reviewed your response 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the year ended January 31, 2010

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 29

1. We note your response to our previous comment 9 and your proposed disclosure for future filings. However, as previously noted, the disclosure within your Form 10-K for the year ended January 31, 2010 does not expressly state management's conclusion with regard to the effectiveness of your disclosure controls and procedures. Instead, as you have stated in your response, your disclosure merely "indicates" your conclusion. Therefore, as you have not clearly stated your conclusion that your disclosure controls and procedures are not effective, your disclosure is not in compliance with Item 307 of Regulation S-K. Please amend this section of your filing to revise your disclosure accordingly.

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You may contact Kristin Shifflett at 202-551-3381 or Margery Reich at 202-551-3347 if you have questions regarding comments on the financial statements and related matters. Please contact Tonya Bryan at 202-551-3601 or me at 202-551-3211 with any other questions.

Sincerely,

David R. Humphrey
Branch Chief