

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

DIVISION OF CORPORATION FINANCE

March 30, 2012

Mr. Kevin Purcell Chief Financial Officer Aerosonic Corporation 1212 North Hercules Avenue Clearwater, Florida 33765

> Re: Aerosonic Corporation Form 10-K for the year ended January 31, 2011 Filed May 2, 2011 File No. 001-11750

Dear Mr. Purcell:

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 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, 2011

## Note 3. Consolidation and Restructuring Costs, Page F-15

 We have reviewed your responses to our prior comments 5, 6 and 7. To facilitate our evaluation of your response, please provide us with additional information regarding the marketing of Earlysville, Virginia facility between the third quarter of fiscal 2008, when it was initially classified as held for sale, and the most recent practicable date. Specifically, your Form 10-Q for the quarter ended October 26, 2007 states that you entered into an agreement to sell the Earlysville facility for \$3 million on October 10, 2007. Please describe the significant contractual terms of that contract. You also disclose the fact that the environmental consulting firm you hired to survey the property in preparation for the sale detected contamination, and that remediation costs cannot be Mr. Kevin Purcell Aerosonic Corporation March 30, 2012 Page 2

estimated pending further assessment. Please indicate the date upon which that sales agreement was extended and/or terminated and explain the reasons for this event. Address whether and how your circumstances are consistent with Example 10 of ASC 360-10-55-46 and describe any differences. Please also describe your active plan to locate a buyer between the date the initial sales agreement was extended or terminated and December 31, 2010. We may have further comments upon review of your response.

- 2. As a related matter, you state that, as of January 31, 2011 and as of October 2011, you continued to have on-going communications with a potential buyer. Please tell us whether this is the same buyer referenced above. Please further clarify the nature of these discussions as they appear to have continued over a significant period of time without resulting in a purchase commitment. We note that you also "continued to actively attempt to locate a buyer" and that you "engaged a commercial broker to locate a buyer" at each of the above dates. Tell us whether you received any offers over the period and quantify any such offers, if applicable.
- 3. Finally, you state that the property was appraised at a market value of \$2,750,000 in March 2010 "based upon the hypothetical condition that the property is not contaminated." As you spent only \$15,000 on environmental remediation efforts in fiscal 2012, it appears that these efforts have been completed. However, based upon discussions with the commercial broker, you indicate that management continues to believe that the environmental issue is the largest impediment to attracting a buyer. Please further explain the current condition of the property. In addition, the property was listed at \$3.2 million at January 31, 2011 (above the appraised market value previously referenced) and you state that management believes that a reduction of listed sales price would not likely attract more buyer interest since they are currently advising potential buyers that the price "is open for negotiation." It appears, from this statement, that you have received no bids of any kind on the property. Please advise as to whether this is the case. In view of the combined impact of all of these factors we are not persuaded, from the facts presented to date, either that the property is being marketed for sale at a price that is reasonable in relation to its current fair value and/or that carrying value of the property is fully recoverable. Please provide us with the supplemental information requested above and any other available documentation or supplemental information that will further support your accounting conclusions. In addition, please describe the current status of your efforts to sell the property as of the most recent practicable date. We may have further comments upon review of your response.

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. Kevin Purcell Aerosonic Corporation March 30, 2012 Page 3

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 me at 202-551-3211 with any other questions.

Sincerely,

/s/ David R. Humphrey

David R. Humphrey Accounting Branch Chief