



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

January 16, 2009

James W. Green
President and Chief Executive Officer
Analogic Corporation
8 Centennial Drive
Peabody, Massachusetts 01960

Re: Analogic Corporation
Form 10-K for the fiscal year ended July 31, 2008
Filed September 29, 2008
File No. 0-6715

Dear Mr. Green:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

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 July 31, 2008

Item 1. Business

1. In your future filings please disclose the name of any customer and its relationship, if any, with your company or your subsidiaries if sales to the customer, by one or more segments, are made in an aggregate amount equal to 10 percent or more of your consolidated total net revenues and the loss of such customer would have a material adverse effect on you and your subsidiaries taken as a whole. Refer to Item 101(b)(1)(vii) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

2. In your future filings, please add a balanced, executive-level discussion that identifies the most important themes or other significant matters with which management is concerned primarily in evaluating the company's financial condition and operating results. Discuss material business opportunities, challenges and risks, such as those presented by known material trends and uncertainties, on which the company's executives are most focused, and the actions they are taking in response to them. For further guidance on the content and purpose of the discussion, see Interpretive Release No. 33-8350 on our website.

Item 11. Executive Compensation

3. We note from your disclosure under "Objectives and Philosophy of Our Executive Compensation Program" that you have incorporated by reference from page 20 of your proxy statement that you target payments under your annual incentive cash bonus plan, grants of performance-contingent restricted stock awards, and the overall compensation for your named executive officers at the median of your peer companies. Given that you target the elements of your compensation packages, please briefly discuss in your applicable future filings how each element of compensation you provide to the named executive officers relates to the data you have analyzed from the peer companies and include an analysis of where actual payments under each element of compensation actually fell within the targeted range. If any of your named executive officers are compensated at levels that are materially different from the targeted levels of compensation, please also provide discussion and analysis as to why.
4. We note from your discussion under "Annual Incentive Bonus Plan" on page 21 of the proxy statement you have incorporated by reference that you have not disclosed the targets to be achieved in order for your named executive officers to earn their respective bonuses. We also note from your disclosure under "Long Term Incentive Plan" that you have not disclosed the growth targets in earnings per share necessary to be achieved in order for your named executive officers to vest in their respective performance-contingent restricted stock awards. Please provide such disclosure in your future filings, as applicable. To the extent you believe that disclosure of such information, on a historical basis, would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with a detailed explanation supporting your conclusion. Refer to Question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available on our website at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>. To the extent that it is appropriate to omit specific targets, you are required to provide

- appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. In discussing how difficult or likely it will be to achieve the target levels, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.
5. With respect to your disclosure under the caption "Long Term Incentive Plan" on page 22 of the proxy statement that you have incorporated by reference into your Form 10-K, we note minimal, if any, discussion and analysis as to how the stock awards were determined. In your future filings, as applicable, please include substantive analysis and insight into how your compensation committee made its stock award determinations with respect to each named executive officer. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, please discuss and analyze how the compensation committee determined the actual number of shares underlying the equity-based grants that were awarded to your named executive officers and how and why those grants varied among the named executive officers.

Item 15. Exhibits and Financial Statement Schedules

6. In your future filings please provide the information called for by Item 15(b) of Form 10-K or incorporate that information into your report by reference to the "Index to Exhibits" found after your report.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please submit your cover letter on 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 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 filing;

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- 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.

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 filing or in response to our comments on your filing.

You may contact Tom Jones at (202) 551-3602 or me at (202) 551-3635 if you have any questions.

Sincerely,

Tim Buchmiller
Senior Attorney