

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

Mail Stop 6010

March 5, 2008

Mr. John H. Lowry III Chief Financial Officer Perceptron, Inc. 47827 Halyard Drive Plymouth, Michigan 48170-2461

Re: Perceptron, Inc.

Amended Form 10-K/A for the Fiscal Year Ended June 30, 2007

Form 8-K Dated February 15, 2008

File No. 000-20206

Dear Mr. Lowry:

We have reviewed your filings and your response letter dated February 29, 2008 and we have the following comment. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in future filings in response to this comment. 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. 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 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

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1. We note that you present your non-GAAP measures in the form of a statement of operations. This format may be confusing to investors as it reflects several non-GAAP measures, including but not limited to, non-GAAP cost of sales, non-GAAP gross profit, non-GAAP operating expenses, and non-GAAP operating income which have not been identified or described to investors. In fact, it appears that management does not use all of these non-GAAP measures but they are shown here as a result of the presentation format. Please note that Instruction 2 to Item 2.02 of Form 8-K requires that when furnishing information under this item you must provide all the disclosures required by paragraph (e)(1)(i) of Item 10 of Regulation S-K and FAQ 8 Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003 for each non-GAAP measure presented. Specifically, you should provide a reconciliation of each non-GAAP measure to the most directly comparable GAAP measure and explain why you believe each measure provides useful information to investors. To eliminate investor confusion, please remove the non-GAAP statements of operations format from all future filings. Instead, only disclose those non-GAAP measures used by management and which you intended to provide to investors with the appropriate reconciliations to the most directly comparable GAAP measure.

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

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3616 if you have questions regarding these comments. In this regard, do not hesitate to contact Kevin Vaughn, Branch Chief, at (202) 551-3643.

Sincerely,

Lynn Dicker Reviewing Accountant