

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-7010

Mail Stop 7010

August 25, 2008

Mr. Joseph D. Hill VP and CFO Metabolix, Inc. 21 Erie Street Cambridge, MA 02139

RE: Form 10-K for the fiscal year ended December 31, 2007 Forms 10-Q for the periods ended March 31, 2008 and June 30, 2008 File No. 1-33133

Dear Mr. Hill:

We have limited our review to those issues we have addressed in our comments. If you disagree with a comment, 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 or may not 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 on 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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FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2007

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings.

Item 7A – Quantitative and Qualitative Disclosure About Market Risk, page 54

2. Please revise your disclosure to provide a more comprehensive discussion of the information required by Item 305 of Regulation S-K. Refer to the appendices to Item 305 for suggested formats for presentation of the information. Specifically, please consider providing a sensitivity analysis that expresses the potential loss in future interest income resulting from one or more selected hypothetical changes in interest rates.

FORM 10-Q FOR THE PERIOD ENDED JUNE 30, 2008

Financial Statements

Note 13 - Change in Accounting Estimate, page 13

3. We note that you determined in the first quarter of 2008 to extend the use of your pre-commercial manufacturing plant. Please enhance your disclosure to clarify how you will extend the use of the plant. Disclose what the depreciable lives were before the change in accounting estimate and what they were changed to. In addition, please also disclose the estimated annual impact of this change in accounting estimate on income from continuing operations, net income and earnings per share.

Exhibits 31.1 and 31.2

4. We note that the certifying individuals included their titles in the introductory sentence of the certifications required by Item 601(b)(31) of Regulation S-K and that the titles of the certifying individuals were included in the introductory sentence of the certifications required by Item 601(b)(31) of Regulation S-K in exhibit 31.1 to the 10-K and exhibits 31.1 and 31.2 to the March 31, 2008 10-Q. Confirm that the individuals certified the reports in their individual capacities, and remove their titles from the introductory sentence of the certifications required by Item 601(b)(31) of Regulation S-K in exhibit 31.1 to the 10-K and exhibits 31.1 and 31.2 to the March 31, 2008 10-Q.

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Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. 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 required under the Securities Exchange Act of 1934 and 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 their 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 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. Mr. Joseph D. Hill Metabolix, Inc. August 25, 2008 Page 4 of 4

You may contact Edward M. Kelly, Senior Counsel, at (202) 551-3728 or, in his absence, Pamela A. Long, Assistant Director, at (202) 551-3760 if you have any questions regarding legal or disclosure matters. Please contact Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, Lisa Haynes, Staff Accountant, at (202) 551-3424 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker Accounting Branch Chief