

Via Facsimile and U.S. Mail  
Mail Stop 6010

October 26, 2005

Mr. Barry W. Weiner  
President, Chief Financial Officer, and Director  
Enzo Biochem, Inc.  
60 Executive Boulevard  
Farmingdale, NY 11735

Re: Enzo Biochem, Inc.  
Form 10-K for the fiscal year ended July 31, 2004  
Filed October 14, 2004  
File No. 001-09974

Dear Mr. Weiner:

We have reviewed your response dated July 8, 2005 to our comment letter dated June 16, 2005 and have the following comments.

In our comments, we have asked you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments. In some of our comments, we refer to your Form 10-K for the fiscal year ended July 31, 2005. Please note that we did not review that Form 10-K, but looked at it solely in assessing your responses to our prior 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.

Item 7. Management's Discussion and Analysis of Financial Condition  
and ..., page 27

Critical Accounting Policies, page 29

1. Please tell us why it is appropriate to estimate your contractual allowances using the reciprocal percentage of the expected percentage that will be collected, as you described in your response to part a. of our prior comment one. Based on this, it would appear that your estimate of contractual allowances includes all amounts that you do not expect to collect, even if some of those amounts go uncollected for reasons other than contractual allowances. In addition, please tell us how this affects how you estimate your allowance for doubtful accounts. Finally, as you responded that you use historical reimbursement statistics, please tell us whether and how you consider changes in your payer mix.

2. As we did not note this in your response to part a. of our prior comment one, for each of the last three fiscal years, please provide us disclosures that would have quantified the amount of changes in estimates of prior period contractual adjustments that you recorded

during the current period. For example, for fiscal 2005, this amount would represent the amount of the difference between estimates of contractual adjustments for services provided in fiscal 2004 and the amount of the new estimate or settlement amount that was recorded during fiscal 2005. If your billing system does not have the capacity to provide this information, please provide us disclosures that would have stated this fact and that would have clarified how this affects your ability to estimate your contractual allowances.

3. Please tell us whether the 1% change in the contractual allowance percentage, discussed in your response to part b. of our prior comment one, represents what you believe to be a reasonably likely change in your estimate, as contemplated by Section V. of Financial Reporting Release 72. If not, please provide us with disclosures that would address reasonably likely changes in your estimate. In addition, please tell us why the effect of this 1% change as of and for the fiscal year ended July 31, 2004 included in your response is different than the effect disclosed on page 30 of your Form 10-K for fiscal 2005.

4. We noted that you disclose "gross billing percentages by billing category" on page 29 of your Form 10-K for fiscal 2005. Please tell us why you did not appear to provide this information on a net basis, which would appear to be the basis upon which the amounts should be reflected in your financial statements. In addition, please clarify whether these amounts reflect the billings made during the year or the billings outstanding as of the end of the year. If these amounts reflect the billings outstanding, please tell us why the amounts for some categories for fiscal 2004 do not appear to be consistent with the amounts reflected in Table 2 to your response to part c. of our prior comment one. If they reflect billings made during the year, please tell us why it would not be appropriate to also disclose the amount of receivables by billing category.

5. According to your responses to prior comments two and four, you wrote off all accounts receivable over 300 days. However, on page 30 of your Form 10-K for fiscal 2005, you disclosed that, in fiscal 2005, you wrote off all accounts receivable over 210 days. Please tell us why this changed and explain whether the change is a change in estimate or a correction of an error, as contemplated by APB 20.

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

You may contact Tabatha Akins, Staff Accountant, at (202) 551-3658 or Oscar Young, Senior Staff Accountant, at (202) 551-3622 if you have questions regarding the comments. Please contact me at (202) 551-3679 with any other questions.

Sincerely,

Jim B. Rosenberg  
Senior Assistant Chief

Accountant

??

??

??

??

Barry W. Weiner  
Enzo Biochem, Inc.  
October 26, 2005  
Page 3