

December 16, 2005

United States Securities and Exchange Commission
Division of Corporation Finance
450 Fifth St., N.W.
Washington, DC 20549
Attn: Mr. Jim B. Rosenberg, Sr. Assistant Chief Accountant

Re: Enzo Biochem, Inc.
Form 10-K for the FYE 7/31/04, filed 10/14/04
File no. 001-09974
COMMENT LETTER DATED DECEMBER 5, 2005

Ladies and Gentlemen:

In response to your requests made in a letter dated December 5, 2005, we are pleased to provide you with this additional information and clarification:

Q1. CONTRACTUAL ALLOWANCE PERCENTAGE

In prior responses we incorrectly used the word reciprocal. To compute the contractual allowance percentage, we first determine the reimbursement percentage, which is based on a rolling monthly analysis of the experience of amounts approved as reimbursable and ultimately settled by payers, versus the corresponding gross amount billed to the respective payers. The difference between the gross amount billed and the reimbursement percentage is our contractual allowance percentage and represents the proportion of the gross billed amounts we do not expect to be reimbursable.

In summary, the contractual allowance is an estimate that reduces our gross amount billed to amounts that we ultimately expect to be approved and reimbursable. To the extent that reimbursements received are different from the estimates, we adjust our contractual allowance in the period that approved settlements are received. We adjust the contractual allowance periodically, based upon our evaluation of historical settlement experience with payers, industry reimbursement trends, and other relevant factors. We believe that our net revenues for our clinical labs business meet the requirements of SAB 104.

As with most receivables in our industry, there exists some degree of uncertainty about collectibility. While losses as contemplated under FASB #5 may not be identifiable to a particular receivable amount at a reporting date, based on our historical experience, they do exist in relation to our gross receivables. Accordingly, we provide for estimated losses on our net receivables. The Company determines the allowance for doubtful accounts after the contractual allowance has been applied to the gross amount billed. The allowance for doubtful accounts percentage is calculated by comparing the sum of open accounts receivable over 210 days at balance sheet date and direct write-offs

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during a rolling period, to gross amount billed during the same rolling period. This doubtful accounts percentage is applied to open receivables under 210 days at the balance sheet date. The allowance for doubtful accounts represents amounts that the Company does not expect to collect after the Company has exhausted its collection procedures.

In summary, we estimate our allowance for doubtful accounts in the period the related services are billed and adjust in future accounting periods as necessary. We base the estimate for the allowance on our evaluation of historical collection experience, the aging profile of accounts receivable, the historical doubtful account write-off percentages, payer mix, and other relevant factors.

Q2. TIMING OF ACCOUNTING FOR FINAL SETTLEMENTS

Differences between the estimated payer approved reimbursable settlements and the actual approved settlements are recorded in the period of approved settlement as an adjustment to contractual allowances. Such settlement differences contribute to the changes in our retrospective reimbursement analysis, described above, and are used to continuously adjust our contractual allowance estimate.

Our clinical lab segment's revenues and accounts receivable are net of the contractual allowance and the allowance for doubtful accounts, which are estimates based on historical experience and judgments about the future. We believe that the use of the rolling monthly analysis experience, which includes the impact of final settlements in the period of settlement, results in fairly stated amounts, in all material respects.

Q3. MATERIALITY OF IMPROVEMENT IN ACCOUNTS RECEIVABLE COLLECTION PROCEDURES

As noted in our prior response, the Company's procedures include the review of the collectibility of the receivables based on a number of factors, besides the period they have been outstanding. The historical collection experience is an integral part of the estimation process related to the allowance for doubtful accounts. The collectibility of our receivables is directly linked to our overall billing and collection efforts, which include the timing of our collection procedures, most notably those related to obtaining the correct information in order to bill effectively for the services provided. During fiscal 2005, we put into service at 280 ordering physicians' office's a sophisticated information technology system (ENZO DIRECT) to obtain upfront billing information directly from the ordering physician at the time of service. This new system reduced the timing of the collection process for inaccurate or missing billing information. Also in fiscal 2005, the Company increased the billing department's collection staff, and refocused collection procedures and processes. With the increase in the collection and billing department staff and the improvement in the information technology system during fiscal 2005, we were able to shorten the time required to complete our collection procedures. During fiscal 2005, internal collection efforts occurred on a regular basis 90 days after invoice date using an electronic mailing process system. In fiscal 2004 and prior the collection process occurred 150 days after invoice date using a manual mailing system.

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This system, increased staff, and the enhanced processes and procedures, allowed the Company to realize better collection rates on our open receivables as well as exhaust our collection efforts on a more timely basis. Accordingly, we were able to conclude that the collectibility of the open receivables from all billing parties that are 210 days and older is doubtful.

As noted above, there are a number of factors that impact the allowance for doubtful accounts. The above system, process and procedural changes, which constitute some of the factors, improved our overall collections and enhanced our ability to conclude on collectibility more timely. While the above factors enhanced our estimation process, the direct effects of such qualitative changes are not directly quantifiable. Accordingly, it would be impracticable to disclose the impact as recommended under paragraph 33 of APB 20. Improvements or deterioration in collection rates and the aging of patient receivables are linked to the overall quality of our billing and collection procedures. Inherently, our estimation of net realizable value of patient receivables could change in a material amount depending on the consistency of those efforts. We have previously disclosed in our critical accounting policies on page 30 of our fiscal 2005 10K the following: "The Company believes that the collectibility of its receivables is directly linked to the quality of its billing processes." In future critical accounting policies discussions, including our Form 10-Q filed on December 12, 2005, we will also disclose the following: "Should circumstances change (e.g. shift in payer mix, decline in economic conditions or deterioration in aging of patient receivables), our estimates of net realizable value of receivables could be reduced by a material amount." We believe this enhances the disclosure and the inherent risks in our estimation process for the allowance for doubtful accounts.

We appreciate your assistance in complying with the applicable disclosure requirements and enhancing the overall disclosure of our filings.

Please contact me if you have additional questions.

Sincerely yours,

s/ Barry W. Weiner
President, Chief Financial Officer and Director

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