



DIVISION OF
CORPORATION FINANCE

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

January 30, 2015

Via E-mail

Mr. Barry Weiner
Chief Financial Officer
Enzo Biochem, Inc.
527 Madison Avenue
New York, NY 10022

**Re: Enzo Biochem, Inc.
Form 10-K for the Fiscal Year Ended July 31, 2014
Filed October 9, 2014
File No. 001-09974**

Dear Mr. Weiner:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended July 31, 2014

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 41

Liquidity and Capital Resources, page 47

1. We note you received a waiver from the Lender for non-compliance with a financial covenant and the lender modified various financial covenants relating to fiscal 2014. We further note your disclosure on page F-22 that states the Credit Agreement requires maximum levels of cash usage and minimum levels of liquidity, as defined, and provides for increased liquidity levels if operating results are not achieved. It appears to us that your Credit Agreement is a material agreement, that the covenants are material terms of the Credit Agreement and that information about the covenants would be material to an investor's understanding of the Company's financial condition and liquidity. Please describe to us the nature of the waiver received from the Lender to cure non-compliance

with the financial covenant. In addition, please provide us with draft disclosure of the following information to be included in future filings:

- The material terms of the debt covenants, including quantification of the amount or limit required for compliance with any financial covenants as compared to your actual results.
 - The likelihood of failing a financial covenant or obtaining a waiver in the future.
 - The actual or reasonably likely effects of compliance or non-compliance with the covenants on the Company's financial condition and liquidity.
2. Please confirm to us that in future filings you will include a discussion of your liquidity and capital resources for the three-year period covered by the financial statements. We note you have included your analysis for the year ended July 31, 2014 compared to July 31, 2013. However, you have not included your analysis for the year ended July 31, 2013 compared to July 31, 2012.

Critical Accounting Policies, page 49

Accounts Receivable and Allowance for Doubtful Accounts, page 51

3. We note the reduction in your allowance for doubtful accounts as a percentage of total accounts receivable from July 31, 2013 (18.1%) to July 31, 2014 (14.7%). Please describe to us the factor(s) that resulted in the reduction (e.g. changes in the category of outstanding receivables, the composition of the aging or the Company's accounting policy or methodology with respect to the allowance from the prior period). Also confirm to us that you will clearly describe any significant factor(s) that influenced management's judgment with respect to the estimate of allowance for doubtful accounts in future filings.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

Barry Weiner
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In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- 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.

You may contact Myra Moosariparambil at (202) 551-3796 or John Archfield at (202) 551-3315 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3871 with any other questions.

Sincerely,

/s/Tia L. Jenkins

Tia L. Jenkins
Senior Assistant Chief Accountant
Office of Beverages, Apparel, and
Mining