



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

DIVISION OF  
CORPORATION FINANCE

March 28, 2013

Via E-mail

Jean Francois-Huc  
President and Chief Executive Officer  
BioAmber Inc.  
1250 Rene Levesque West, Suite 4110  
Montreal, Quebec, Canada H3B 4W8

**Re: BioAmber Inc.  
Amendment No. 10 to Registration Statement on Form S-1  
Filed March 15, 2013  
File No. 333-177917**

Dear Mr. Huc:

We have reviewed the above-referenced filing, and have the following comments.

Prospectus Cover Page

1. The legend on the prospectus cover page references selling stockholders. Our current understanding is that you do not intend to include any securities offered by selling stockholders in this registration statement. Please revise or advise accordingly.

Table of Contents

2. Please remove the sentence in the first paragraph under the table of contents that advises investors that information is accurate only as of the date of the prospectus. This statement may suggest to investors that you are not responsible for omissions of material facts necessary to make your statements not misleading at the time of sale or contract of sale.

Risk Factors, page 11

To achieve profitability, we need to execute our manufacturing expansion strategy . . . , page 11

3. We note that as of July 1, 2013, you are guaranteed only 60% of the capacity of your plant in Pomacle, France. We note further that you exercised your option to renew your access to this facility until the end of 2013, and that you will use this facility until completion of the Sarnia facility. Please include any material risks to your business that may result from the capacity restriction, or, in the alternative, please advise us why this capacity restriction is not expected to have any material effect on your business.

Management's Discussion and Analysis, page 48

Additional Facilities, page 49

4. Please modify your disclosure here and elsewhere to clearly state your current plans for additional manufacturing facilities. We note that your disclosure in this section mentions building an additional facility in North America in 2016 and possibly commissioning a facility in Thailand in 2015. However, we note your disclosure on page 98 that you plan to commission a plant in North America in 2014 and that the disclosure in this section does not mention a possible facility in Thailand. Please advise and revise accordingly.

Business, page 70

General

5. We note that you no longer include a discussion of your Supply Agreement with Mitsubishi Chemical Corporation or your agreements with NatureWorks LLC, such as the Limited Liability Agreement or the Technology License Agreement. Please include a discussion of the material terms of such agreements, or, in the alternative, please advise why you believe such disclosure is not required.

Our Products, page 78

Market Opportunity, page 78

6. We note your discussion on page 81 of the potential market for bio-succinic acid in the fine chemicals market. We note that the data regarding the output of petroleum-based succinimides in China is from 2006. Given the age of the data, please advise us as to whether you believe that this data continues to remain reliable. Please also disclose the source of this data. Please also clearly define succinimides so that the use of this term and its significance is clear to investors.

Technology Partnerships, page 89

7. We note your disclosure regarding your entry into a commercial license agreement and development agreement with Cargill in May 2012. Please file these agreements as exhibits to the registration statement, or, in the alternative, please tell us why you are not required to do so.

Competition, page 99

8. We note your statement that the two-step manufacturing process used by Genomatica requires 50% more sugar than your one-step process. Please provide us supplementally with support for this statement.

Executive and Director Compensation, page 112

Director Compensation, page 123

9. We note your statement that in 2012 your directors did not receive any fees or other compensation for their services as members of the board except for Mr. Briner, Mr. Haller and Mr. Land. However, we note your additional disclosure stating that your board approved a compensation package to be paid to non-employee directors and the package was applicable from and after January 1, 2012. Please advise whether any directors aside from Mr. Briner, Mr. Haller and Mr. Land received compensation for their service as a director for the 2012 fiscal year. To the extent any directors received such compensation, please include these directors in the table on page 123.

Financial Statements

Note 15. Commitments and Contingencies

Long Term Debt and Grants, page F-39

10. You are subject to financial covenants contained within certain debt and grant agreements. Please disclose whether you were in compliance with these covenants. Please also disclose the specific terms of the covenants to which you are subject with any required ratios/amounts. Please disclose the actual ratios/amounts as of each reporting date for any material covenants for which it is reasonably likely that you will not be able to meet, along with the specific computations used to arrive at the actual ratios/amounts with corresponding reconciliations to US GAAP amounts. See Sections I.D and IV.C of the SEC Interpretive Release No. 33-8350 and Compliance and Disclosures Interpretation 102.09 which is available on our website at <http://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm>.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

Jean-Francois Huc  
BioAmber Inc.  
March 28, 2013  
Page 4

You may contact Nudrat Salik, Staff Accountant, at 202-551-3692, or Rufus Decker, Accounting Branch Chief, at 202-551-3769 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Jaskot, Staff Attorney, at 202-551-3442, or Craig Slivka, Special Counsel, at 202-551-3729 with any other questions.

Sincerely,

/s/ Craig E. Slivka, for

Pamela A. Long  
Assistant Director

cc: Michael Minahan, Esq. (*via E-mail*)  
Goodwin Procter LLP