

Mail Stop 3561

February 21, 2007

Via U.S. Mail & Facsimile (303) 893-2882

Mr. Mark Smith
President and General Counsel
Bion Environmental Technologies, Inc.
641 Lexington Ave., 17th Floor
New York, NY 10022

**Re: Bion Environmental Technologies, Inc.
Amendment No. 2 to Registration Statement on Form 10-SB
Filed February 1, 2007
File No. 000-19333**

Dear Mr. Smith:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, 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 raise additional comments.

General

1. We note that, in response to comment 1 from our letter of December 11, 2006, you indicate that the basis for your statement that your technology “surpasses current environmental regulations” is a research report published by Bion. Please revise your disclosure to indicate that this claim is based on your own research.
2. In addition, please note that the article by Jeffrey Odefey and Agriculture Factsheet from the EPA were not enclosed, as indicated in your response letter. Please provide both items when you file your next amendment.

Principal Products and Services, page 5

3. We note the changes you have made in response to comment 7 from our letter of December 11, 2006. Please revise your disclosure to clarify whether Jeremy Rowland, Sal Zizza, and Jeff Kapell are currently serving as Chief Operating

Officer, Chairman and Director of Bion Dairy, and Vice President – Renewables of Bion Dairy, respectively, or whether they are not currently serving and will only assume those positions once you have obtained officer and director liability insurance coverage. If the latter, please explain to us the reason for the delay since their 2006 appointments in obtaining such coverage and what work each has been performing in the interim.

Our prior financings have been substantially dilutive, page 27

4. We note the new risk factor you have added in response to comment 14 from our letter of December 11, 2006. Please revise to indicate how the company was “subjected to” significant anti-dilution provisions.

Item 2. Management’s Discussion and Analysis, page 29

5. In light of the significant effect the adoption of SFAS 123(R) had on your operating results in the six months ended December 31, 2006, please consider revising your MD&A section to include material qualitative and quantitative information about any of the following, as well as other information that could affect comparability of financial statements from period to period:
 - Transition method selected (e.g., modified prospective application or modified retrospective application) and the resulting financial statement impact in current and future reporting periods;
 - Method utilized by the company to account for share-based payment arrangements in periods prior to the adoption of Statement 123R and the impact, or lack thereof, on the prior period financial statements;
 - Differences in valuation methodologies or assumptions compared to those that were used in estimating the fair value of share options under Statement 123;
 - A discussion of the one-time effect, if any, of the adoption of Statement 123R, such as any cumulative adjustments recorded in the financial statements; and
 - Total compensation cost related to nonvested awards not yet recognized and the weighted average period over which it is expected to be recognized.See Staff Accounting Bulletin Topic 14:M.

Item 5. Indemnification of Directors and Officers, page 63

6. We reissue comment 23 from our letter of December 11, 2006. Although you state in your response letter that changes in your disclosure have been made in response to this comment, no such changes could be located.

Item 1. Index to Exhibits, page 63

7. We note that you incorporate various documents by reference, indicating on page 65 that they were “[p]reviously filed.” For clarity, please also indicate which form was filed containing each document and the date that the form was filed.

Statements of Changes in Stockholders’ Equity Deficit, page F-4

8. We have reviewed your response to comment 24 from our letter of December 11, 2006 in which you indicate that the company valued the 1,325,000 warrants issued in May 2005 at \$.10 per warrant, the price paid for certain warrants sold concurrently with the issuance of the 1,325,000 warrants. However, we note from the disclosure in Note 10 to the financial statements, that the warrants purchased for cash during the period were purchased by certain officers and employees of the company and therefore the purchase price for the warrants may not be representative of their fair value. Please explain why you believe the cash price paid for the warrants purchased by employees as well as the \$.10 value assigned to the 1,325,000 warrants issued in May 2005 is representative of the fair value of the warrants issued. Your response should also explain why you believe the 600,000 warrants issued to Brightcap for deferred compensation of \$60,000 in May 2005 and the 600,000 warrants issued to Salvatore Zizza for services rendered of \$60,000 were appropriately valued in your financial statements. We may have further comment upon receipt of your response.

Also, with regard to the 30,000 shares issued on December 31, 2005 in exchange for \$60,000 of deferred compensation, please tell us the date on which the agreement to issue these shares was entered into with the company and tell us whether any expense was recognized by the company in connection with the issuance of these shares. As the market price of the company’s shares on the date these shares were issued was approximately \$4 per share, it appears that recognition of additional compensation expense may be required in connection with the issuance of these shares. We may have further comment upon receipt of your response.

Interim Financial Statements for the Six Months Ended December 31, 2006

Note 8. Convertible Notes – Affiliates

9. We note from your disclosure in Note 8 that the fair values of the Mark A. Smith and Brightcap convertible notes at December 31, 2006 were calculated using Black-Scholes option pricing models with a volatility assumption of 66%. We also note from Note 8 to the audited financial statements that the fair value of these convertible notes at July 1, 2006 was calculated using Black-Scholes option pricing models which both included an assumption of volatility of 181%. Please

explain to us why the volatility assumption related to the fair values of the convertible notes decreased significantly from July 1, 2006 to December 31, 2006.

Note 8. Convertible Notes – Affiliates, page F-30

10. We note from your disclosures that, as of July 1, 2006, the fair value of deferred compensation owed to Mark A. Smith and Brightcap was \$1,521,609 and \$2,081,475, respectively, and a cumulative effect of the change in accounting principle of \$731,386 was recorded. However, it appears from your financial statements that you recorded the change in accounting principle as an equity adjustment rather than as an income statement adjustment as per paragraph 20 of APB 20. Please revise your statements of operations for the three and six months ended December 31, 2006 to present this amount as a cumulative effect of the change in accounting principle on a separate line item above net loss but below the subtotal for other (income) and expense, and revise your statement of stockholders equity to remove the presentation of the cumulative effect of the change in accounting principle as an addition to equity. See APB 20 and Rule 5-03(b)(18) of Regulation S-X. Similarly, please revise to present earnings per share information for (a) income (loss) from continuing operations before cumulative effect of the change in accounting principle, (b) cumulative effect of the change in accounting principle, net of tax, and (c) net income (loss). See paragraph 37 of SFAS No. 128. Also, please revise your statements of cash flows to include the cumulative change in accounting principle as an adjustment to reconcile net loss to net cash used in operating activities.

Note 9. Deferred Compensation, page F-31

11. We note your disclosure that effective January 1, 2007 you entered into agreements converting deferred compensation amounts owed as of December 31, 2006 into promissory notes with conversion features. Please explain to us, and disclose in your notes to the financial statements, how you will account for the conversion of the deferred compensation arrangements into convertible notes.

Note 10. Stockholders' Equity

12. We note from your disclosure that, under the terms of a mutual release and agreement with a consultant, 20,000 shares valued at \$40,000 were returned by the consultant and cancelled by the company. Please tell us how you accounted for both the original issuance of these shares in 2006 as well as for this return of shares. Your response should also explain why you believe the treatment used for both the issuance and subsequent return of the shares is appropriate.

Note 11. Operating Lease

13. We note that effective August 1, 2006 you entered into a non-cancellable operating lease commitment for office space in New York. Please revise your note to disclose future minimum rental payments on noncancelable leases as of the date of the latest balance sheet presented, in the aggregate and for each of the five succeeding fiscal years, and the total amount of minimum rentals to be received in the future under noncancelable subleases as of the date of the latest balance sheet presented. See paragraph 16 of SFAS No. 13.

Note 14. Subsequent Events

14. We note your disclosure that on January 3, 2007 you declared bonuses totaling \$170,467 to certain employees and a consultant. Please tell us if these bonuses relate to work performed during the six months ended December 31, 2006 and, if so, please tell us if you have accrued for this amount as of December 31, 2006. If you have not established an accrual for these bonuses as of December 31, 2006, please explain why.

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.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment

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for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Claire Erlanger at (202) 551-3301 or Linda Cvrkel at (202) 551-3813 if you have questions regarding comments on the financial statements and related matters. Please contact Joshua Ravitz at (202) 551-4817 or me at (202) 551-3755 with any other questions.

Sincerely,

Max A. Webb
Assistant Director

cc: Via Facsimile (303) 893-2882
Russell Bean, Esq.
Krys Boyle, P.C.