

Mail Stop 6010

July 1, 2008

Via U.S. Mail and Fax (772) 781-4778

Adrian Goldfarb  
Chief Financial Officer  
Ecosphere Technologies, Inc.  
3515 S.E. Lionel Terrace  
Stuart, Florida 34997

**Re: Ecosphere Technologies, Inc.**  
**Form 10-KSB for the fiscal year ended December 31, 2007**  
**Filed April 15, 2008**  
**File No. 000-25663**

Dear Mr. Goldfarb:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your future filings 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.

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 comment or on any other aspects of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-KSB for the fiscal year ended December 31, 2007

Results of Operations, page 13

1. We note that your discussion excludes certain items from your statements of operations, such as loss on extinguishment of debt, impairment costs and gain on settlement of accrued expenses. In future filings, please revise your discussion to include all material or non-recurring type transactions. In addition, tell us how you determined the amount of the loss on extinguishment of debt.

Item 7. Financial Statements

Note 1. Revenue Recognition, page F-11

2. Please tell us what you mean by the reference to “wash sale” as it relates to the equipment and inventory sold. We reference your discussion in Note 17 that your equipment and inventory sold was netted against the cash proceeds from the sale. Please tell us your accounting basis for the “wash sale” and clarify how this is recorded in your financial statements.
3. In addition, in Note 1 on page F-11 you indicate that no gain or loss was recognized because of the wash sale treatment. However, in Note 17 you disclose revenue from the sale of intellectual property. Please explain this discrepancy.

Stock-Based Compensation, page F-12

4. Tell us how you computed expected volatility for fiscal year 2006. The range of 1-25% is significantly lower than the 2007 volatility range of 116-144%. Please also tell us the reasons for the increase in the volatility factors from year to year.

Note 7. Redeemable Convertible Cumulative Preferred Stock, page F-21

5. Please tell us and revise in future filings details of the redemption provision and the expected impact of this redemption in Note 2 and in Liquidity and Capital Resources discussion on page 14.

Note 17. Significant Transaction, page F-33

6. We note your sale of the ship stripping and certain other assets of UES to Chariot Robotics LLC. We also note that you have historically accounted for the coating removal business as a separate operating entity and reporting unit. Please tell us your consideration of paragraphs 41-43 of SFAS 144 and how you determined that it was not necessary to report this as discontinued operations.
7. Tell us in further detail the specifics of the assets sold, the significant terms of the agreement and whether you retained any interests in these assets. We note that the carrying value of the inventory, equipment and patent sold was \$2.3 million and that the cash proceeds were \$6.2 million. Tell us what the difference relates to, for example, customer lists, trademarks, other agreements.
8. Tell us the accounting basis for recognizing the net assets sold as operating revenue in your statement of operations. In addition, please tell us your consideration of presenting the net gain on the sale of assets as a non-operating item as it does not appear to be aligned with your business of licensing and selling clean technologies.
9. Tell us your consideration of providing Article 11 pro-forma information as it relates to your significant sale of assets/technology. Please refer to Article 11-01(4).

Form 10-Q for the quarter ended March 31, 2008

Financial Statements

10. Please tell us where you have disclosed the adoption of SFAS 157 during the quarter.

Note 3. Notes Payable, page 6

11. Please revise to disclose in future filings and tell us how you determined the amount of the debt discount and embedded conversion feature for the debt issuances discussed in Note 3.

12. Please revise to disclose in future filings and tell us about the notes payable that are currently in default, including the specific events of default and how these are reflected in the financial statements. Clarify your plans to satisfy these events of default or to repay these notes.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response 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 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 Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or me at (202) 551-3676 if you have questions regarding these comments and related matters.

Adrian Goldfarb  
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You may also contact Martin F. James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Brian R. Cascio  
Accounting Branch Chief