



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

May 18, 2006

Mr. Frank W. Barker, Jr.
Chief Financial Officer
EarthFirst Technologies, Inc.
2515 E Hanna Ave.
Tampa, FL 33610

RE: Form 10-KSB for the fiscal year ended December 31, 2005
Form 10-QSB for the quarter ended March 31, 2006
File No. 0-23897

Dear Mr. Barker:

We have reviewed these filings and have the following comments. If you disagree with a comment, 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 or may not 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 comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-KSB FOR THE YEAR ENDED DECEMBER 31, 2005

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your supplemental response what the revisions will look like. These revisions should be included in your future filings.

Item 6 – Management’s Discussion and Analysis or Plan of Operation

Prime Power of Tampa, Inc., page 16

2. Please disclose how you are accounting for your investment in Prime Power of Tampa, Inc.

Item 8A - Controls and Procedures, page 27

3. We remind you that Item 307 of Regulation S-B requires you to disclose the conclusions regarding the effectiveness of your disclosure controls and procedures as of the end of the period covered by the report. Please confirm to us that your disclosure controls and procedures were effective as of December 31, 2005.
4. It appears that you revised your accounting for the debt discount associated with the Laurus Credit Facility and you revised your classification of the related party stock based compensation on your consolidated statements of operations. In light of these revisions and the other quarterly restatements discussed in Note 17, please help us understand how you were able to determine that your disclosure controls and procedures were effective as of December 31, 2005.

Financial Statements

General

5. You previously disclosed that you sold your investment in Hybrid Fuel Systems, Inc. and Nanobac Pharmaceuticals, Inc. to your Chairman of the Board for \$1,050,000. In addition, you disclosed that the fair market value of these investments as of September 30, 2005 approximated \$4,000,000. Please help us understand why this disclosure is not presented within this filing, or if it is, tell us where. Please tell us how you accounted for the sale of these investments to your Chairman of the Board, including the accounting literature used to determine the appropriate accounting. Tell us what the fair market value of these investments

was at the time of the sale, and what consideration was given to this value in determining the appropriate accounting.

Note 1 – Nature of Business, Basis of Presentation and Summary of Significant Accounting Policies

Impairment of Goodwill and Long-Lived Assets, page F-9

6. On page F-7 you state substantially all of your revenues were generated by EME in 2005 and 2004. On page F-9, you state that your goodwill relates to the acquisition of Electric Machinery Enterprises, Inc. Given your recurring losses from operations and your net cash outflows from operations, please tell us more about your goodwill impairment test performed during the year ended December 31, 2005. Specifically address the following:
- Tell us when the goodwill impairment test was performed;
 - Tell us what your reporting units were and how you determined these were the appropriate reporting units in accordance with SFAS 142; and
 - Tell us how you determined that your goodwill was not impaired.

Note 2 – Laurus Credit Facility, page F-13

7. Please tell us whether any of the \$8 million in financing from Laurus has been put into a separate account such as an escrow account. If so, please tell us whether there are any limitations on your ability to access the funds in these accounts.
8. Tell us how you have accounted for the registration rights agreement, including what consideration was given to SFAS 133 and EITF 05-04.

Note 4 – Derivative Financial Instruments, page F-17

9. Please provide us with your detailed computations which support the amounts recorded as embedded derivative instruments and freestanding derivatives (warrants and options).

Note 6 – Sale of Subsidiary, page F-21

10. Please clarify your disclosure to state whether the loss on disposal of discontinued operations reflected on the statements of operations is related to the sale of EM Enterprises General Contractors, Inc. Please also clarify whether this amount includes the results of this entity's operations for each period presented. Refer to paragraph 43 of SFAS 144.

FORM 10-QSB FOR THE PERIOD ENDED MARCH 31, 2006

General

11. Please address the above comments in your interim filings as well.

Note 11 – Segment Information, page 18

12. Please also disclose your segment information for the three months ended March 31, 2005.

* * * *

Please respond to these comments and file the requested amendments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. 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 filings reviewed by the staff to be certain that they have provided all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed 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 their filings;
- 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.

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If you have any questions regarding these comments, please direct them to Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, Nudrat Salik, Staff Accountant, at (202) 551-3692.

Sincerely,

Rufus Decker
Accounting Branch Chief