



DIVISION OF
CORPORATION FINANCE

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

March 17, 2011

Mr. Duane D. Deaner
Chief Financial Officer
Environmental Tectonics Corporation
County Line Industrial Park
Southampton, PA 18966

Re: Environmental Tectonics Corporation
Form 10-K/A for the fiscal year ended February 26, 2010
Filed March 15, 2011
File No. 001-10655

Dear Mr. Deaner:

We have reviewed your response dated February 24, 2011 and related filings 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

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Form 10-K/A for the fiscal year ended February 26, 2010

Note 2. Summary of Significant Accounting Policies, page 19

Earnings Per Common Share (restated), page 26

1. We refer to your restated earnings per share calculation for 2009 on page 28. We see in 2009 the company reported a net loss as opposed to net income. Please tell us how you considered FASB ASC 260-10-45-68 in determining whether the convertible participating securities should share in the net loss when calculating the undistributed earnings per share for that year.

You may contact Leigh Ann Schultz at (202) 551-3628 or Gary Todd at (202) 551-3605 if you have questions on the financial statements and related matters. Please contact Louis Rambo at (202) 551-3289 or Timothy Buchmiller at (202) 551-3635 with any other questions. You may also contact me at (202) 551-3676.

Sincerely,

for

Brian Cascio
Accounting Branch Chief