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March 19, 2013

Rule 12h-3 of the Securities Exchange Act of 1934 Section 15(d) of the Securities Exchange Act of 1934

VIA ELECTRONIC SUBMISSION

Office of Chief Counsel Division of Corporation Finance Securities and Exchange Commission 100 F Street, N.E. Washington, DC 20549

Re: Environmental Tectonics Corporation (Commission File No. 001-10655)

Ladies and Gentlemen:

On behalf of Environmental Tectonics Corporation, a Pennsylvania corporation (the "Company"), we are writing to request that the Staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") confirm that it concurs in our view that the updating of the Company's Registration Statements (as defined herein) pursuant to Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act") during the fiscal year that ended February 22, 2013 would not preclude the Company from utilizing Rule 12h-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), to suspend its obligation to file with the Commission periodic and current reports required under Section 15(d) of the Exchange Act and the rules and regulations promulgated thereunder, including its Annual Report on Form 10-K for the fiscal year that ended February 22, 2013, and that the Staff further confirm it will not recommend enforcement action to the Commission if the Company files a Form 15 pursuant to Rule 12g-4 and Rule 12h-3 on or before the May 24, 2013 due date for the Company's Annual Report on Form 10-K for the fiscal year that ended February 22, 2013 and does not file its Annual Report on Form 10-K for that fiscal year. Alternatively, we hereby request that the Commission use its discretionary authority under Section 12(h) of the Exchange Act to exempt the Company from the requirement to file the Annual Report on Form 10-K for the fiscal year that ended February 22, 2013 and any other reports required by Section 15(d) for that fiscal year.

Background

The Company was incorporated in Pennsylvania in 1969. It is a significant supplier and innovator in the following product areas: (1) software driven products and services used to create and monitor the physiological effects of flight, including high performance jet tactical flight simulation, upset recovery and spatial disorientation, and both suborbital and orbital commercial human spaceflight; (2) altitude (hypobaric) chambers; (3) the Advanced Disaster Management Simulator ("ADMS"); (4) steam and gas sterilizers; (5) testing and simulation devices for the automotive industry; and (6) hyperbaric (100% oxygen) chambers. Shares of the Company's Common Stock, \$0.05 par value per share (the "Common Stock") are not listed or traded on any national securities exchange; the shares of Common Stock are currently quoted in the over-the-counter market under the ticker symbol "ETCC."

The Company first became subject to the reporting requirements of Section 15(d) of the Exchange Act in 1971 following the completion of its initial public offering. In 1973, the Company filed a Form 8-A to register its class of Common Stock under Section 12(g) in connection with its NASDAQ listing, making the Company subject to the reporting requirements of Section 13(a) and suspending the requirements under Section 15(d). In 1990, the Company filed an additional Form 8-A, this time pursuant to Section 12(b) in connection with its American Stock Exchange listing, and as a result continued its Section 13(a) reporting requirements. In May 2009, the Company filed a Form 25 to voluntarily delist its shares of Common Stock from NYSE Amex, which terminated its Section 12(b) registration; at that time, the Company's class of Common Stock again became subject to Section 12(g), continuing its Section 13(a) reporting requirements.

As of February 23, 2013 (the first day of the Company's new fiscal year), the Company had 271 shareholders of record. As of March 19, 2013, the Company had 271 shareholders of record. The Company intends to file a Form 15 to deregister the class of Common Stock and suspend its duty to file reports under Section 12(g) of the Exchange Act. The suspension of the Company's reporting obligations under Section 12(g) of the Exchange Act will automatically revive the Company's reporting obligations under Section 15(d) of the Exchange Act. Subject to the Staff's concurrence with the Company's request as set forth in this letter, the Company intends to file a Form 15 pursuant to Rule 12g-4(a)(1) and Rule 12h-3 to discontinue its reporting obligations under Section 13(a) and Section 15(d) of the Exchange Act, respectively, prior to the May 24, 2013 due date for the Company's Form 10-K for the fiscal year that ended February 22, 2013. Absent the relief requested in this letter, the provisions of Section 15(d) of the Exchange Act would continue to require the Company to continue its reporting obligations until it files its Annual Report on Form 10-K for the fiscal year that ended February 22, 2013, as the Company's effective Registration Statements were automatically updated upon the filing of the Company's Annual Report on Form 10-K for the fiscal year that ended February 24, 2012. As noted above, the due date for the Form 10-K the fiscal year that just ended would be May 24, 2013.

The Company currently has outstanding the following securities: (i) Common Stock, (ii) options ("Options") to purchase up to 238,395 shares of Common Stock, (iii) warrants ("Warrants") to purchase up to 594,335 shares of Common Stock and (iv) 12,127 shares of Series E Cumulative Convertible Participating Preferred Stock, \$0.05 par value per share ("Series E Preferred Stock"), convertible into 6,063,321 shares of Common Stock. The Company's class of Common Stock is registered under Section 12 of the Exchange Act and constitutes the only class of securities of the Company that is registered or is required to be registered under Section 12 of the Exchange Act. The Company has issued no other class of securities subject to the requirements of Section 15(d) of the Exchange Act. The Company is not

otherwise contractually obligated to file reports with the Commission under the Exchange Act. As of March 19, 2013 there were 9,169,192 shares of Company Common Stock outstanding, held by record by 271 shareholders. The Options were issued in connection with compensation plans and arrangements. A large majority of these options have exercise prices significantly above the last reported trading price of the Common Stock and significantly above the highest trading price reported for the Common Stock during the past twelve months. A total of 96 individuals hold stock options, all of whom are current or former employees or directors of the Company. The Warrants and shares of Series E Preferred Stock are held by one person, who is a director of the Company, and were issued in connection with the provision of a loan by that director to the Company and a guaranty of the Company's credit facility with a financial institution.

As noted elsewhere herein, the Company is current in all of its periodic reports through the date of this letter. The Company undertakes to file with the Commission all required periodic and current reports until the date the Company files with the Commission its Form 15 to discontinue its reporting obligations under the Exchange Act. The Company also acknowledges that if on the first day of any subsequent fiscal year there are more than 300 holders of record of the Company's Common Stock, the suspension of reporting obligations under Section 15(d) of the Exchange Act will lapse and the Company will be required to resume periodic and current reporting.

Registration Statements

The Company has on file with the Commission the following Form S-8 and Form S-3 registration statements (collectively, the "Registration Statements") under the Securities Act:

- Form S-8 (Registration No. 333-161737) filed on September 4, 2009 to register 1,000,000 shares of Common Stock issuable in connection with the Company's 2009 Employee, Director and Consultant Stock Plan;
- Form S-8 (Registration No. 333-131322) filed on January 27, 2006 to register 700,000 shares
 of Common Stock issuable in connection with the Company's 2005 Non-Employee Director
 Stock Option Plan and a Service Contract between Sonny Callahan & Associates LLC and
 the Company;
- Form S-8 (Registration No. 333-65469) filed on October 8, 1998 to register 500,000 shares of Common Stock issuable in connection with the Company's 1999 Stock Option Plan; and
- Form S-3 (Registration No. 333-29083) filed on June 12, 1997 to register 106,433 shares of Common Stock issuable pursuant to certain warrants described therein, and the resale of such shares.

Each of these Registration Statements was automatically updated during 2012 for purposes of Section 10(a)(3) of the Securities Act as a result of the filing of the Company's Annual Reports on Form 10-K for the year ended February 24, 2012. On February 21, 2013, the Company filed a post-effective amendment to each Form S-8, removing from registration all unsold securities under the Form S-8 Registration Statements. Pursuant to Rule 462(a), each of these post-effective amendments became effective automatically upon filing. On March 11, 2013, the Company filed a post-effective amendment to the Form S-3, removing from registration all unsold securities under the Form S-3 Registration Statement. This post-effective amendment was declared effective on March 12, 2013. The Company does not have any other Securities Act registration statements on file that became effective or were

automatically updated under Section 10(a)(3) of the Securities Act during the fiscal year that ended February 22, 2013 through the date of this letter. In addition, no sales of securities took place under any of these Registration Statements during the fiscal year that ended February 22, 2013 and through the date of this letter. As noted above, a large majority of the Options have exercise prices significantly above the last reported trading price of the Common Stock and significantly above the highest trading price reported for the Common Stock during the past twelve months. As a result, the Company does not expect there to be option exercises in the foreseeable future. In addition, the warrants relating to the shares of Common Stock registered on the Form S-3 are no longer exercisable and the Company has no ongoing obligation to maintain that registration statement for resale purposes.

Discussion

Rule 12g-4(a) under the Exchange Act provides that an issuer is entitled to terminate its registration of a class of securities under Section 12(g) of the Exchange Act if the issuer certifies to the Commission that such class of securities is held of record by less than 300 persons. The issuer's duty to file any reports required under Section 13(a) is suspended immediately upon the filing of the necessary certification on Form 15. Because the Company has less than 300 record shareholders, it satisfies the requirements of Rule 12g-4(a) and is currently eligible to deregister its Common Stock under Section 12(g) of the Exchange Act.

With respect to an issuer's ongoing reporting obligations under Section 15(d), Rule 12h-3(a) provides a means to suspend reporting, subject to meeting the requirements of Rule 12h-3(a) and (b) and the limitations imposed by Rule 12h-3(c) and (d). The Company meets the requirements of Rule 12h-3(a) because it has filed all reports required by Section 13(a) of the Exchange Act for its most recent three fiscal years and will continue to file for the portion of the current fiscal year preceding the date of the anticipated Form 15 filing. In addition, the Company satisfies the requirements of Rule 12h-3(b) because its Common Stock, the Company's only class of registered securities, is held of record by less than 300 holders.

Section 15(d) of the Exchange Act and Rule 12h-3(c) thereunder, however, have the effect of rendering inapplicable this ability to suspend reporting with respect to any class of securities for a fiscal year in which a registration statement relating to that class of securities became effective under the Securities Act, or is required to be updated pursuant to Section 10(a)(3) of the Securities Act. In the Company's case, a literal interpretation of Rule 12h-3(c) would not permit the Company to suspend the duty imposed by Section 15(d) to file reports required by Section 13(a), despite the fact that the Company satisfies the requirements of Rule 12h-3(a) and (b), because the Company's Annual Report on Form 10-K with respect to its fiscal year ended February 24, 2012, had the effect of updating the Registration Statements covering shares of the Company's class of Common Stock identified above pursuant to Section 10(a)(3) of the Securities Act. Notwithstanding Rule 12h-3(c), the Company believes it should be able to rely on Rule 12h-3(a) to immediately suspend its duty to file reports under Section 15(d) upon the filing of the Form 15 because it is otherwise eligible to do so, no shares of Common Stock have been sold under any of the Registration Statements during the current or immediately prior fiscal year, and the benefits to securityholders of continued reporting are outweighed by the burdens on the Company of continuing to prepare and make such filings.

The purpose of Rule 12h-3 is to permit an issuer to suspend its reporting obligations when its securities are held by a small number of persons. The Staff has repeatedly indicated that a literal reading

of Rule 12h-3(c) is not always justified for public policy reasons. In the proposing release relating to proposed revisions of Rule 12h-3, the Commission stated that the purpose of periodic reporting under Section 15(d) is "to assure a stream of current information about an issuer for the benefit of purchasers in the registered offering, and for the public, in situations where Section 13 of the Exchange Act would not otherwise apply" and that "this [Rule 12h-3(c)] limitation is in keeping with the philosophy reflected in Section 15(d) of the Exchange Act that generally the investing public should have available complete information about the issuer's activities at least through the end of the year in which it makes a registered offering." Exchange Act Release No. 34-20263 (October 5, 1983) (the "Proposing Release"). See also Tix Corporation (available November 3, 2010); Craftmade International, Inc. (available January 27, 2010); DATATRAK International, Inc. (available August 12, 2009); Neuro-Hitech, Inc. (available July 30, 2009); and I.C. Isaacs & Company, Inc. (available August 13, 2008).

As discussed above, the Company filed post-effective amendments to the Registration Statements to deregister all remaining unsold shares of Common Stock that had been registered on those Registration Statements. The post-effective amendments to the Form S-8 Registration Statements became effective immediately upon filing; the post-effective amendment to the Form S-3 Registration Statement was declared effective on March 12, 2013. As a result, those Registration Statements cannot be used for sales of shares of Common Stock and, therefore, no investors will need the protections contemplated by Section 15(d) as no investors are able to purchase shares pursuant to any effective Securities Act registration statements of the Company.

Furthermore, the Staff has granted no-action relief and concurred in allowing issuers to file a Form 15 in a range of circumstances where a literal application of Rule 12h-3(c) would yield relatively little public benefit in light of the compliance burdens continued reporting would place on the issuer. In this regard, the Staff has concurred in allowing issuers to file a Form 15 notwithstanding that such issuers had effective Securities Act registration statements that had been automatically updated during the current fiscal year due to the filing of Annual Reports on Form 10-K. See *e.g.*, Tix Corporation (available November 3, 2010); PureDepth, Inc. (available March 8, 2010); Craftmade International, Inc. (available January 27, 2010); Neuro-Hitech, Inc. (available July 30, 2009); and I.C. Isaacs & Company, Inc. (available August 13, 2008). The Company meets the conditions regularly cited in the relevant no-action letters, including that it is otherwise eligible under Rule 12h-3, no shares of Common Stock were sold under any of the Registration Statements during the current fiscal year, and all remaining shares under the Registration Statements have been deregistered.

The Company's management has estimated that the Company's annual cost relating to its Exchange Act reporting obligations is approximately \$300,000. The Company believes that the out-of-pocket costs plus the amount of management time and effort associated with reporting places a burden on the Company that significantly outweighs the associated benefits, particularly in light of the limited trading in the Company's Common Stock and the limited number of record shareholders. Although the Common Stock is quoted in the over-the-counter market, there is very limited trading activity in the shares. The average daily trading volume in the Common Stock for the current fiscal year (to date) was approximately 1,566 shares, and on many days the shares have not traded at all. In addition, after giving effect to certain derivative securities exercise and conversion rights, the Company's officers and directors account for approximately 71% of the Company's equity ownership interests. With these and similar factors in mind, in determining to suspend the Company's duty to file periodic and current reports under Sections 13(a) and 15(d) of the Exchange Act, the Company's board of directors concluded that the

financial burdens of continued registration and periodic reporting outweighed the benefits. The board of directors believes that the funds spent to prepare and file required periodic and current reports and to otherwise ensure compliance with securities law and regulations applicable to reporting companies, and the legal and administrative time spent in connection with these reports and compliance matters, could be used more effectively and in a manner more accretive to the Company's shareholders by devoting such funds and attention to matters intended to increase shareholder returns. Accordingly, it is the Company's view that the benefits to the current shareholder base and to those persons holding securities under the Company's stock-based incentive plans are outweighed by the excessive cost to the Company of being required to continue to file periodic and current reports.

After the filing of the Form 15, it is the Company's intention to rely on available exemptions from Securities Act registration for the issuance of securities pursuant to the Company's stock-based incentive plans, including Rule 701, which will become available to the Company upon the effectiveness of the Form 15. Securities issued under Rule 701 will be restricted securities as defined in Securities Act Rule 144, as provided by Rule 701(g) and, therefore, the resale of shares acquired upon the exercise of such options or other issuances under the plans may only be resold pursuant to an effective registration statement under the Securities Act or pursuant to an exemption from registration under the Securities Act. Accordingly, the Company acknowledges, and will advise all of its option holders that the resale of shares acquired upon the exercise of such options may only be resold pursuant to an effective registration statement under the Securities Act or pursuant to an exemption from registration under the Securities Act. See, e.g., Tix Corporation (available November 3,2010); I.C. Isaacs & Company, Inc. (available August 13, 2008); Planet Technologies, Inc. (available February 7, 2008). In addition, as noted above, the Company also has outstanding certain Warrants to purchase shares of Common Stock and shares of Series E Preferred Stock, which are convertible into shares of Common Stock. These securities are held by one person (who is also a director of the Company). Both the Warrants and the shares of Series E Preferred Stock were issued pursuant to an exemption from registration under Section 4(a)(2) of the Securities Act. In the event that the holder of the Warrants chose to exercise part or all of the Warrants, the Company would issue the shares of Common Stock pursuant to the exemption provided by Section 4(a)(2) of the Securities Act, and the Company acknowledges that the shares acquired upon exercise may only be resold by the holder thereof pursuant to an effective registration statement under the Securities Act or pursuant to an available exemption from registration under the Securities Act. In the event that shares of the Series E Preferred Stock were converted into Common Stock, the Company would issue the shares of Common Stock pursuant to the exemption provided by Section 3(a)(9) of the Securities Act, and the Company acknowledges that these shares may only be resold by the holder thereof pursuant to an effective registration statement under the Securities Act or pursuant to an available exemption from registration under the Securities Act.

Conclusion

Based on the foregoing, we respectfully request that the Staff confirm that it concurs with the Company's view that the updating of the Company's Registration Statements pursuant to Section 10(a)(3) of the Securities Act during the Company's 2012 fiscal year will not preclude the Company from utilizing Rule 12h-3 under the Exchange Act to suspend the Company's duty to file with the Commission reports required by Section 15(d) of the Exchange Act and the rules and regulations thereunder with respect to the Common Stock, including the Company's duty to file its next periodic report, an annual report on Form 10-K for the year that ended February 22, 2013. Alternatively, we hereby request that the

Commission use its discretionary authority under Section 12(h) of the Exchange Act to exempt the Company from the requirement to file such periodic and current reports.

Upon receipt of the Staff's concurrence that it will not recommend enforcement action under the conditions set forth in this letter, the Company will file a single Form 15 certification requesting simultaneously the termination of its registration of its Common Stock under Section 12(g) of the Exchange Act and the suspension of its obligations to file periodic and current reports under Sections 13(a) and 15(d) of the Exchange Act.

Please contact me at (202) 292-4525 or via email at thanley@stradley.com if you have any questions or require any additional information. Should the Staff disagree with any of the views discussed in this letter, we would appreciate an opportunity to discuss the matter with the Staff before a written response is issued. Thank you in advance for your consideration of this matter.

Sincerely,

Thomas L. Hanley

Stradley Ronon Stevens & Young LLP