



DIVISION OF
CORPORATION FINANCE

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

December 1, 2010

Via U.S. Mail and Facsimile (503-612-2383)

Mr. William J. Clough
Chief Executive Officer
Waytronx, Inc.
20050 SW 112th Avenue
Tualatin, Oregon 97062

**Re: Waytronx, Inc.
Form 10-K for the fiscal year ended December 31, 2009
Filed April 1, 2010**

**Forms 10-Q for the Quarterly Periods Ended March 31, 2010, June 30, 2010
and September 30, 2010
File No. 000-29923**

Dear Mr. Clough:

We have reviewed your filing 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.

Form 10-K for Fiscal Year Ended December 31, 2009

General

1. Please update the cover of your filings to reflect your Commission File Number: 0-29923.

Item 1. Business, page 4

General

2. Please tell us about your competitive business conditions, position in the industry and methods of competition. Refer to Item 101(h)(4)(iv) of Regulation S-K.

3. On page F-33, in Note 13 to your Consolidated Financial Statements you disclosure that over 30% of your revenues in both 2008 and 2009 were from a single customer. Additionally, trade accounts receivable from one customer for the same period were over 10%. Please revise Item 1 to discuss your dependence on one or a few major customers. Refer to Item 101(h)(4)(vi) of Regulation S-K.

Item 7. Management's Discussion and Analysis..., page 17

Recap of Liquidity and Capital Resources, page 21

4. We note your business strategy seeks to develop and commercialize new technologies by developing your technology platform, especially WayCool. Please discuss the basis for management's belief that the WayCool technology will be commercialized in the twenty-four months following the filing of your 2009 Form 10-K.

Research and Development, page 22

5. Please discuss why there was a decrease in research and development expenditure from \$513,671 in 2008, to \$56,042 in 2009, especially in relation to the development of your WayCool technology.

Item 8. Financial Statements and Supplementary Data

Note 2. Summary of Significant Accounting Policies

Identified Intangible Assets, page F-11

6. In accordance with ASC 350-20-50-2, please provide goodwill related disclosures.

Note 3. Acquisition, page F-17

7. You have indicated that Waytronx acquired CUI Inc., citing your basis in accounting literature, specifically ASC 805-10-55-10, please provide your analysis as to why you believe that Waytronx was the accounting acquirer and not CUI.
8. Please indicate any relationships that Waytronx and its officers had with CUI Inc. prior to the acquisition of CUI Inc.
9. Please provide a list of shareholders of Waytronx and CUI Inc. both prior and subsequent to your acquisition.
10. Please indicate if there was any collateral or any guarantees associated with the notes issued to purchase CUI Inc.

11. You have identified goodwill as part of your acquisition of CUI, but it appears that you have also identified trademark and tradename, patents and a customer list also as goodwill and have aggregated these amounts in the balance sheet. Please breakout these amounts on the balance sheet into a separate line item.
12. It is not clear from your disclosures if intangible assets other than goodwill (i.e. trademark and trade name CUI, trademark and tradename V-Infinity, patent pending technology and customer list/base) are being amortized or are considered indefinite life intangibles. If the latter is true please provide your rationale for why you believe these have an indefinite life.
13. You have indicated that there was an impairment of goodwill in the current year; please clarify if that impairment was goodwill or other intangible assets that are in the Goodwill line item on the balance sheet.

Note 6. Notes Payable, Convertible Notes Payable and Convertible Notes Payable, Related Party, page F-20

14. You have noted that the Company is in default due to its debt service coverage ratio covenant related to the \$6,000,000 Commerce Bank of Oregon cash loan. It is not clear whether the loan is classified as current or long-term liability, please clarify. If part or the entire note is in long-term, please tell us why you believe this classification is appropriate.
15. You have noted a gain from extinguishment of debt related to the \$17.5 million convertible note, due to the reduction of the conversion rate. It is not clear whether the face amount was reduced, please clarify. It is also not clear if IED Inc. was given any consideration for the amendment of the note, please clarify.
16. We have noted that you recognized a gain of approximately \$11.8 million on the extinguishment of debt, citing your basis in accounting literature, please tell us why the extinguishment resulted in a gain.

Note 7. Working Capital Line of Credit, page F-21

17. You have noted that you have approximately \$2 million in line of credit outstanding at December 21, 2009 with Key Bank, and the Company is currently in violation of its debt covenant. It is not clear whether the loan is classified as current or long-term liability, please clarify. If part or the entire note, is in long-term, please tell us why you believe this classification is appropriate.

Note 8. Consulting Agreements, page F-23

18. We note that since 2008 you have engaged consulting services at different periods and namely for strategic marketing. Please revise to include specifically what services were completed by the consultants engaged in 2009 for fees of \$30,000 and \$7,500 and \$162,500.

Note 9. Non-Employee Stock Warrants, page F-25

19. We note your use of the Black Scholes Option Pricing Model in calculating the value and expense of stock warrants. Please revise to indicate the source of the information underlying the assumptions used in the model (i.e. footnotes to the financial statements, or discussion in Management's Discussion and Analysis).

Note 16. Subsequent Events, page F-36

20. Please tell us more about your consulting agreement entered into on March 5, 2010 with the firm specializing in the development of power supply technologies including information about consultant fees, and royalties on sales of the products developed.

Item 9A(T). Controls and Procedures, page 24

Evaluation of Disclosure Controls and Procedures, page 24

21. We note that your disclosure controls and procedures refer to your Chief Accounting Officer as your principal financial and accounting officer. This is not consistent with your evaluation of internal control over financial reporting and appears to have been carried forward from your previous 10-K. Please revise to make this consistent with your evaluation of internal control over financial reporting.

Reports to Shareholders, page 29

22. Please include the current address of the U.S. Securities and Exchange Commission's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549.

Item 11. Executive Compensation, page 32

Incentive Compensation, page 35

23. We note there are three key performance metrics used in determining executives' incentive awards. Please tell us what specific "agreed-upon strategic and corporate performance goals" of metric (2) are used to determine executives' incentive awards.

Form 10-Q for the Quarter Ended June 30, 2010

Note 8. Notes Payable, page 19

24. Please tell us the economic reason for a holder of a \$17,500,000 note, to settle its obligation for only \$50,000 and 1,000,000 shares in stock.

Note 9. Other Equity Transactions, page 20

25. You have stated that you settled your \$4.9 million dollar note for a one-time payment of \$50,000 and the conversion of \$70,000 of the principal into 1,000,000 shares of the Company's common stock and recognized a gain of approximately \$5.6 million on the extinguishment of debt, citing you basis in accounting literature, please tell us why the extinguishment resulted in a gain.

Form 10-Q for the Quarter Ended September 30, 2010

Item 2. Management's Discussion and Analysis, page 20

Overview, page 21

26. Please tell us more about your licensing contract with GL Industrial Services UK, Ltd. and the related consulting agreement with Terry Williams (i.e. duration of the contract, key terms, and the compensation structure of the consulting agreement).
27. Similarly, please tell us more about the Seedling Proposal with BAE to the Defense Advanced Research Projects Agency (i.e. timeline for review process, subject of joint proposal and key terms).

Research and Development, page 24

28. We note that in previous disclosure your research and development expenditures decreased. In your most recent disclosure you state that research and development has increased to \$563,190 from \$174,502 for the nine months ended September 30, 2010 and 2009 respectively. Please tell us why your research and development expense decreased and then increased again within the last year and a half.

Please file all correspondence over EDGAR. 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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

Mr. William J. Clough
Waytronx, Inc.
December 1, 2010
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In responding to our comments, please provide a written 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.

You may contact Rahim Ismail, Staff Accountant, at (202) 551-4965 or Carlos Pacho, Senior Assistant Chief Accountant, at (202) 551-3835 if you have questions regarding comments on the financial statements and related matters. Please contact Kate Beukenkamp, Staff Attorney, at (202) 551-6971 or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spirgel
Assistant Director