

May 14, 2007

Mr. Kevin L. Vaughn
Branch Chief
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Via: EDGAR Filing

Re: Comments on Form 10-K for the year ended December 31, 2006

Dear Mr. Vaughn:

Thank you for your letter dated April 30, 2007 re: Ultralife Batteries, Inc. Form 10-K for the year ended December 31, 2006 SEC File No. 0-20852. In the following paragraphs, we have provided responses to the comments you raised.

SEC Comment 1:

We note your presentation of multiple non-GAAP financial measures of adjusted cost of products sold, adjusted gross margin, adjusted operating expenses and adjusted operating income, however, we do not see where you have provided all of the information required by Item 10(e) of Regulation S-K. Please revise future filings to address the following for each of the non-GAAP financial measures presented:

- *Disclose the reasons why management believes the presentation of each of the non-GAAP financial measures provides useful information to investors regarding your financial condition and results of operations.*
- *Disclose, to the extent material, the additional purposes, if any, for which management uses each of the non-GAAP financial measures.*
- *Describe the specific manner in which management uses the non-GAAP measures to conduct or evaluate its business.*
- *Explain the economic substance behind management's decision to use the measures.*
- *Discuss the material limitations associated with the use of the non-GAAP measures as compared to the use of the most directly comparable GAAP measures and the manner in which management compensates for these limitations when using the non-GAAP measures.*

In responding to this comment, please refer to Item 10(e) of Regulation S-K Question 8 of Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures dated

June 13, 2003 and SAB Topic 14G. Please provide us with a sample of your proposed revised disclosure. Please note we may have additional comment upon reviewing your response.

Ultralife Response 1:

We agree to expand this disclosure in future filings to include all of the required elements for non-GAAP financial measures disclosures. As requested, we are providing the following revised wording for this disclosure (changes are noted in bold italics):

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Impact of Adoption of FAS 123R, and Amortization Expense Associated with Acquisitions. Effective January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment" ("FAS 123R"), requiring that compensation cost relating to share-based payment transactions be recognized in the financial statements. We adopted the modified prospective method of adoption, resulting in no restatement of our prior period results. The total amount of non-cash, stock-based compensation expense for the twelve-month period of 2006 was \$1,480. Since we had not adopted this pronouncement in 2005, there was no expense for share-based compensation in our 2005 reported results. (See Note 8 for additional information.)

As a result of the acquisitions of ABLE and McDowell, we have begun to record a non-cash expense related to the identifiable intangible assets of these companies, including technology, customer and distributor lists, and non-compete agreements, among others. As of December 31, 2006, we had, through preliminary independent appraisals, identified a total of \$7,181 in amortizable intangible assets, which will be amortized over their remaining economic lives. In our internal evaluation of our performance, we exclude this non-cash expense. In 2006, we recorded amortization expense of \$1,199.

For internal purposes, we use a metric of adjusted Operating Income, or what we refer to as "operating performance", to monitor our financial results. The recent addition of two non-cash expenditures, related to stock-based compensation and intangible asset amortization, caused a significant change to our Statement of Operations. The internal measurement of our operating performance adds these two non-cash items back to Operating Income and is, in our view, a more relevant measure for us in that it ties our results more closely to the operating cash flows of the business. Additionally, our bonus plans for executive compensation are tied directly to this operating performance metric.

In order for investors to be able to accurately assess the change in our operating performance from year to year, a reconciliation of our reported results with ***a this*** non-GAAP measurement is being provided. ***We acknowledge that there are inherent limitations on the usage of this metric, particularly when making comparisons to the performance of other companies.*** The table below presents a reconciliation of the reported results with ***a this*** non-GAAP measurement by adjusting out the stock-based compensation expense and intangible asset amortization expense included in 2006 results with the comparable period results in 2005.

SEC Comment 2:

We note your disclosure that you are engaging a third party valuation firm to independently value certain tangible and intangible assets acquired in the ABLE acquisition. Please revise future filings, beginning with your next 10-Q, to name the independent valuation firm. In addition, please note that if you intend to incorporate your Form 10-K by reference into any registration statement, you will be required to

identify the appraisal firm in the “Experts” section and include its consent in the registration statement.

Ultralife Response 2:

While we have engaged outside, third-party consultants to assist us with the independent valuation of the acquired assets, we acknowledge full responsibility for the final valuation of the acquired assets and the incorporation of this in our financial statements. Therefore, we are providing the following revised wording for this disclosure (changes are noted in bold italics):

Note 2- Acquisitions

ABLE New Energy Co., Ltd.

The results of operations of ABLE and the estimated fair value of assets acquired and liabilities assumed are included in our consolidated financial statements beginning on the acquisition date. Pro forma information has not been presented, as it would not be materially different from amounts reported. The estimated excess of the purchase price over the net tangible and intangible assets acquired of \$2,345 (including \$104 in cash) was recorded as goodwill in the amount of \$1,239. We are in the process of completing ~~third party the~~ valuations of certain tangible and intangible assets acquired with the new business. The final allocation of the excess of the purchase price over the net assets acquired is subject to revision based upon our final review of ~~the third party’s~~ valuation *assumptions*.

SEC Comment 3:

We see that during fiscal year 2006 you used a combination of historical and implied volatility, while in 2005 you relied solely on historical volatility. Please explain to us why you concluded your revised method for determining volatility is a better indicator of expected volatility. Discuss why you changed your method of determining estimated volatility and why you now use a combination of historical volatility and implied volatility. Discuss your evaluation of the factors listed in Questions 2 and 3 of SAB Topic 14.D.1.

Ultralife Response 3:

Our change to a combination of historical and implied volatility was based on a thorough review of the guidance contained in SFAS 123R and SAB Topic 14.D.1. We believe implied volatility, a consideration newly introduced in SFAS 123R, provides a more market-driven valuation related to investors’ expectations of the volatility of our business and, as a forward-looking measure, provides a balance against focusing only on a historical measure. In addition, the information we obtained from the trading of our common stock and our traded options is consistent with the considerations listed in Questions 2 and 3 of SAB Topic 14.D.1 and therefore we believe the use of both factors is appropriate in our determination of expected volatility. Lastly, we considered the impact of implied volatility on our previously calculated historical volatility. We determined that implied volatility was not significantly different than historical volatility as evidenced by our 2006 blended volatility of 60.0% compared to our 2005 volatility of 69.4%.

We agree to expand this disclosure in future filings to provide a more detailed analysis for our change in calculating expected volatility. Therefore, we are providing the following revised wording for this disclosure (changes are noted in bold italics):

Note 8 — Shareholders' Equity

We calculate expected volatility for stock options by taking an average of historical volatility over the past five years and a computation of implied volatility. Prior to 2006, the computation of expected volatility was based solely on historical volatility. ***The change to a blended volatility measure was based on a thorough review of assumptions underlying the valuation of our stock options, in conjunction with additional information and guidance that became more widely available as we prepared to implement SFAS 123R in 2006. A blended volatility factor was deemed to be more appropriate as we believe that implied volatility, a forward-looking measure, provides a more market-driven valuation related to investors' expectations of the volatility of our business, and provides a balance against focusing only on a historical measure.*** The computation of expected term was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards and vesting schedules. The interest rate for periods within the contractual life of the award is based on the U.S. Treasury yield in effect at the time of grant. Forfeiture rates are calculated by dividing unvested shares forfeited by beginning shares outstanding. The pre-vesting forfeiture rate is calculated yearly and is determined using a historical twelve-quarter rolling average of the forfeiture rates.

SEC Comment 4:

Further to the above, please revise future filings to provide the disclosures in Question 5 of SAB Topic 14.D.1. As applicable, please also expand your disclosures in the Critical Accounting Policies section to address your use of a blended volatility.

Ultralife Response 4:

We agree to expand this disclosure in future filings to provide a more detailed analysis for our change in calculating expected volatility. Therefore, we are providing the following revised wording for this disclosure (changes are noted in bold italics):

Critical Accounting Policies and Estimates

Stock-Based Compensation:

Effective January 1, 2006, we adopted the provisions of SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123R") requiring that compensation cost relating to share-based payment transactions be recognized in the financial statements. The cost is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the employee's requisite service period (generally the vesting period of the equity award). We adopted SFAS 123R using the modified prospective method and, accordingly, did not restate prior periods presented in this report to reflect the fair value method of recognizing compensation cost. Under the modified prospective approach, SFAS 123R applies to new awards and to awards that were outstanding on January 1, 2006 that are subsequently modified, repurchased or cancelled. We calculate expected volatility for stock options by taking an average of historical volatility over the past five years and a computation of implied volatility. Prior to 2006, the computation of expected volatility was based solely on historical volatility. ***The change to a blended volatility measure was based on a thorough review of assumptions underlying the valuation of our stock options, in conjunction with additional information and guidance that became more widely available as we prepared to implement SFAS 123R in 2006. A blended volatility factor was deemed to be more appropriate as we believe that implied volatility, a forward-looking measure, provides a***

more market-driven valuation related to investors' expectations of the volatility of our business, and provides a balance against focusing only on a historical measure. The computation of expected term was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards and vesting schedules. The interest rate for periods within the contractual life of the award is based on the U.S. Treasury yield in effect at the time of grant.

We acknowledge that (1) we are responsible for the adequacy and accuracy of the disclosure in the filing; (2) 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 (3) we 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.

If you have any questions, I can be reached at (315) 359-6614.

Sincerely,

/s/ Robert W. Fishback

Robert W. Fishback
VP-Finance and Chief Financial Officer