



DIVISION OF
CORPORATION FINANCE

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

August 14, 2012

Via E-mail

Philip Calamia
Chief Financial Officer
AuthenTec, Inc.
100 Rialto Place, Suite 100
Melbourne, FL 32901

**Re: AuthenTec, Inc.
Form 10-K for the Fiscal Year Ended December 30, 2011
Filed March 9, 2012
File No. 001-33552**

Dear Mr. Calamia:

We have reviewed your response letter dated August 3, 2012 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 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 please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 30, 2011

Consolidated Statements of Operations, page 40

1. We note your response to prior comment 1 that you will, "revise [your] future annual filings" to provide the separate disclosures required by Rule 5-03 (b)(1) and (2) of Regulation S-X. However, we note that those disclosures are also required for interim financial statements. Refer to Rule 10-01(a)(3) of Regulation S-X. Please revise future interim and annual filings, as appropriate, to provide these disclosures.

Note 12. Business Acquisitions, page 64

UPEK, Inc. page 67

2. Please refer to the second bullet point of prior comment 4. Please address the following:
- Explain to us the terms of the original promissory note which allowed for the settlement of the note through the issuance of shares, referred to in your response as the “alternative settlement feature”. Describe how the conversion price and share settlement amounts were determined and whether either of those terms was adjustable. Tell us how you determined that the “alternative settlement feature” was not an embedded derivative.
 - Describe how you accounted for the difference between the fair value of the promissory note and its stated value from September 7, 2010 until its extinguishment.
 - Provide us with the authoritative accounting literature which supports your accounting for and valuation of the promissory note at issuance and at extinguishment. Please explain to us the reason for the significant note settlement charge recorded during the three months ended December 31, 2010.
 - Confirm for us when the 7,984,281 settlement shares were issued. We note that your audited financial statements disclose that they were issued on December 22, 2011.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

/s/ Brian Cascio

Brian Cascio
Accounting Branch Chief