



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

February 24, 2010

VIA U.S. Mail and Facsimile

Alberto R. Santa Ines
Chief Financial Officer
3240 Whipple Road
Union City, CA 94587

Re: Abaxis, Inc.
Form 10-K for the fiscal year ended March 31, 2009
Filed June 12, 2009
Form 10-Q for the fiscal quarter ended December 31, 2009
File No. 0-19720

Dear Mr. Santa Ines:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the fiscal year ended March 31, 2009

Note 1. Description of Business and Significant Accounting Policies, page 60

1. We see from the non-cash activities presented on the Statement of Cash Flows that in each period presented you transferred equipment between inventory and property and equipment. Please tell us and provide disclosure in future filings of the nature of the asset transferred and your accounting treatment for the transfer, including how you valued the transfer and how you classify amortization of the asset.

Compensation Discussion and Analysis, page 88

Annual Cash Incentive Bonus, page 91

2. In future filings please provide the specific performance targets to be achieved in order for your named executive officers to earn the annual incentive bonus. To the extent you believe that disclosure of such information, on a historical basis, would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with a detailed explanation supporting your conclusion. To the extent that it is appropriate to omit specific targets or performance objectives, you are required to provide appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Refer also to Question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available on our website at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>. In discussing how difficult or likely it will be to achieve the target levels or other factors, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

Form 10-Q for the fiscal quarter ended December 31, 2009

Condensed Consolidated Statements of Operations, page 3

3. We note that you include stock-based compensation charges on the face of your statements of operations in a table that presents total share-based compensation. Consistent with the guidance in SAB Topic 14-F, in future filings please revise to remove the "total share-based compensation" caption from the table included on the face of your statements of operations. As indicated in SAB Topic 14-F you may present the share-based compensation charges in a parenthetical note to the appropriate income statement line items, in the notes to the financial statements or within MD&A.

Part I – Item 4. Controls and Procedures – Evaluation of Disclosure Controls and Procedures

4. We note your disclosure that your management concluded that the company's "disclosure controls and procedures (which are defined under Securities and Exchange Commission rules as controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, (the "Exchange Act") is recorded, processed, summarized and reported within required time periods)," were effective. In your future filings, please revise to clarify, if true, that your officers also concluded that your disclosure controls and procedures are effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is accumulated and communicated to your management, including your chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure. See Exchange Act Rule 13a-15(e).

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a 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.

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In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. If you have other questions, please contact Louis Rambo at (202) 551-3289 or Tim Buchmiller at (202) 551-3635.

Sincerely,

Brian Cascio
Accounting Branch Chief