

Mail Stop 6010

December 11, 2006

Ralph Schmitt
Chief Executive Officer
Sipex Corporation
233 South Hillview Drive
Milpitas, California 95035

**Re: Sipex Corporation
Registration Statement on Form S-1
Filed November 15, 2006
File No. 333-138740**

Dear Mr. Schmitt:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document 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.

General

1. It appears that you intend your registration statement to cover the resale of securities that are being offered by affiliates in large amounts. Generally, we view resale transactions by related parties of this amount as an offering "by or on behalf of the issuer" for purposes of Rule 415(a)(4) of Regulation C. Under that rule, "equity securities" offered by or on behalf of the registrant cannot be sold as an "at the market offering" unless the offering comes within paragraph (a)(1)(x) of Rule 415. Your offering does not appear to meet that requirement. As such:

- Please revise your registration statement to price the notes and warrants offered for resale by affiliates and disclose that those parties will conduct their offering at the fixed price for the duration of their offering. The prospectus should make clear that those persons are underwriters of the securities they are offering; and
 - Because the offering of the shares of common stock underlying the notes and warrants may not be done on a delayed or continuous basis under Rule 415(a)(1)(x), you may not file a resale registration statement related to the offering of those shares until the selling shareholders have acquired those shares. At that time, you may register the resale transaction if the offering is registered on a form on which you are eligible to register the transaction as a primary offering, the investors are identified as selling shareholders and as underwriters and you include the price at which the underwriters will sell the securities.
2. It appears from your prospectus that you also intend your registration statement to register the resales of the shares issuable upon conversion of the notes and exercise of the warrants by the current holders of those securities. If so, please revise your fee table to specifically include those resales for non-affiliates. Also revise your plan of distribution and other disclosure as appropriate.
 3. If you also intend your registration statement to register the primary offering of your shares of common stock to a subsequent holder of a note or warrant upon the conversion of that note or exercise of that warrant, please revise your registration statement to make this clear. Otherwise, please tell us what registration or exemption you will be using for your primary offering of the underlying securities to subsequent purchasers of the notes and warrants.
 4. If the notes are callable, please include a statement to that effect in the title of the securities wherever the title of the securities is required to be stated in your filing. Refer to Instruction 1.B to Item 202 of Regulation S-K.
 5. Consideration should be given on an ongoing basis to the updating requirements of Rule 3-12 of Regulation S-X. All amendments should contain a currently dated accountant's consent.

Principal and Selling Securityholders, page 19

6. Please add a column to your selling securityholders table to indicate the number of shares of common stock being offered for resale by each selling securityholder and the amount and, if one percent or more, the percentage, of your outstanding common stock to be owned by each such selling securityholder after completion of the offering. Refer to Item 507 of Regulation S-K.

7. We note the references in your selling securityholders table to footnotes 3, 4 and 5. Please include all footnotes that are related to the disclosure in your table immediately after the table.
8. Please identify the natural persons with voting or investment power over the securities held by each selling securityholder.
9. Please tell us whether any selling securityholder is a broker-dealer or an affiliate of a broker-dealer. If a selling securityholder is a broker-dealer, it must be identified as an underwriter with respect to the securities that it is offering for resale unless those securities were received as compensation for underwriting activities. If a selling securityholder is an affiliate of a broker-dealer, it must be identified as an underwriter with respect to the securities it is offering for resale unless that selling securityholder is able to make the following representations in the prospectus:
 - the seller purchased in the ordinary course of business; and
 - at the time of the purchase of the securities to be resold, the seller had no agreements or understandings, directly or indirectly, with any person to distribute the securities.

Incorporation of Certain Information by Reference, page 51

10. Please revise your filing to incorporate by reference all of the reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act since the end of your latest fiscal year. We note, for example, that you have filed several current reports on Form 8-K since December 31, 2005 that have not been incorporated by reference into your registration statement.

Form 10-K for the year ended December 31, 2005

Financial Statements, page 37

Note 2. Summary of Significant Accounting Policies, page 43

Revenue Recognition, page 43

11. Please tell us more about your revenue recognition policy with regards to your engineering service contracts. Specifically:
 - Explain the terms of the contracts you enter into with various customers.

- Explain your accounting policy if you are unable to deliver the “functional development samples.”
- Tell us why it is appropriate to record such costs as research and development expense instead of cost of sales. Provide the literature upon which you relied.
- Clarify for us how you account for the related costs once revenue is recognized and tell us what, if any, amounts are reclassified to costs of sales.
- Quantify the amount of revenue recognition under these agreements for all periods presented. Note if greater than 10 percent of your total revenue for the year, related cost and expenses should be combined and disclosed separately. Refer to Regulation S-X, Article 5-03(b)(1) and (2). Revise as necessary.

Note 5. Property, Plant and Equipment, page 53

12. We note that during the fourth quarter of 2005 you reduced the remaining estimated depreciation life for your headquarters facility from 25 years to four months. Please clarify your accounting, including whether the building was classified as held for sale, as defined by SFAS 144. Discuss why you believe it was appropriate to reduce the life of the building and improvements from 25 years to four months. Specifically refer to the accounting guidance upon which you based your accounting.
13. In this regard, we note you accounted for this sale and leaseback transaction as a “financing transaction,” with no gain or loss recognized at the time of the sale. Please detail for us the accounting for the leaseback and demonstrate your related accounting entries. Explain how the terms of the original contractual arrangement, including the option terms, supports your conclusion that the lease was an operating lease. We may have additional comments after reviewing your response.

Form 10-Q for the three and nine months ended September 30, 2006

Financial Statements, page 2

Note 3. Stock Based Compensation, page 9

14. Please tell us how you accounted for the option repricing in 2005 and upon adoption of SFAS 123(R) in 2006.

Note 13. Convertible Senior Notes, page 16

15. We note that you have issued \$30 million of 5.5% Convertible Senior Notes due in 2026 and that you may incur liquidated damages or penalties pursuant to a registration rights agreement. Please refer to the guidance provided in the Division of Corporation Finance's Current Accounting and Disclosure Issues Outline at <http://www.sec.gov/divisions/corpfin/acctdis120105.pdf> and address the following:
- Tell us how you have considered the guidance provided in EITF 05-4 *The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to Issue No. 00-19* in concluding how to account for these instruments. While we note that the EITF has not reached a consensus on this issue and has deferred deliberation until the FASB addresses certain questions which could impact a conclusion on this issue, please tell us how you considered the guidance in EITF 05-4 and the different views on this issue as outlined in Issue Summary No. 1 to EITF 05-4 in analyzing the registration rights agreement and in considering whether you are required to bifurcate the conversion option from the debt host.
 - Tell us how you have applied the guidance in EITF Issue 00-19 in evaluating whether the conversion feature of your convertible senior note is an embedded derivative that you should separate from the debt host, record as liabilities and account for at fair value under SFAS 133. In this regard, tell us if the note meets the definition of conventional convertible debt, we refer you to paragraph 4 of EITF Issue 00-19. Further, tell us if there are any requirements, even if remote, to net-cash settle. Also tell us whether you are required to settle in registered shares. Please provide us with your analysis of each of these features under paragraphs 12-32 of EITF 00-19.
 - In addition, it appears that the warrants issued in conjunction with the Senior Notes are also subject to the same registration rights agreement noted above for the convertible debt. As a result, we note the accounting and classification of these freestanding instruments may also be impacted depending on your view as to the appropriate accounting for the instruments under EITF 00-19 and your consideration of EITF 05-4. Please specifically address whether you are required to settle in registered shares and your determination as to whether the warrant meets the second part of the paragraph 11(a) scope exception of SFAS 133 in your response.
 - Revise the Critical Accounting Estimates section of MD&A to disclose the methodology and significant estimates used to value any of instruments you carry at fair value, if any.

Note 14. Segment Information and Major Customers, page 18

16. We note that your chief operating decision maker reviews disaggregated information based on product line. Please explain why your product lines (interface, power management, optical storage) are not considered to be discrete operating as defined in SFAS 131.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 21

Results of Operations, page 24

17. When you cite more than one factor responsible for a change in a financial statement line item, the amounts of the individual factors cited should be quantified. Revise future filings as necessary.

Liquidity and Capital Resources, page 26

18. Please revise future filings to define the financial ratios and minimum net worth levels required in your financial covenants.
19. Revise future filings to discuss the potential impact upon revenues, operating results and cash flows, of the transition from your Milpitas wafer fabrication operations to now being manufactured by Silian in China and Episil Technologies in Taiwan.
20. Revise the Management's Discussion in future filings to clearly state that there is "substantial doubt" about the Company's ability to continue as a going concern. Going concern disclosures must use the words "substantial doubt."

Form 10-K for the fiscal year ended January 1, 2005

Note 2. Restatement, page 47

21. We note that you identified certain errors related to 2002 and prior periods. To assist us in understanding your reasons for recording all of these adjustments in the first quarter of fiscal 2003, please address the following:
 - Identify each of the last five fiscal years during which your accounting was not in compliance with US GAAP because of these errors and quantify the impact of the errors, on a gross basis, on each fiscal period.

- Quantify, on a gross basis, the adjustment that is required under US GAAP to correct each error. For those areas involving multiple errors, such as income taxes, please quantify the adjustment relating to each component.
- Describe clearly any assumptions you make in allocating amounts to the different periods and explain why these allocations are appropriate.
- Please provide your analysis explaining why the corrections of the omissions or misstatements in each of the relevant periods would not change or influence the judgment of a reasonable investor. Refer to the guidance in SAB 99 and SAB 108 as appropriate.
- If your analysis continues to conclude that the amounts are immaterial to warrant restatement of the periods prior to fiscal 2003, please explain why you believe that correction of the errors in the first quarter of fiscal 2003 is appropriate. Explain how you considered the staff's guidance provided in SAB Topic 5-F and the remarks of Russell P. Hodge before the December 6, 2004 AICPA National Conference on Current SEC and PCAOB Developments found at <http://www.sec.gov/news/speech/spch120604rph.htm>.
- Explain where you recorded the \$1.1 million in your statement of operations.

We may have additional comments after reviewing your response.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment 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 amendment and 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 Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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 connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Julie Sherman at (202) 551-3640 or Angela Crane at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. You may contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief

cc: Robert G. Day, Esq. (via fax)
Allison Berry Spinner, Esq. (via fax)