



DIVISION OF
CORPORATION FINANCE

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

April 6, 2011

James R. Currier
Chief Executive Officer
Sionix Corporation
914 Westwood Boulevard
Box 801
Los Angeles, CA 90024

**Re: Sionix Corporation
Amendment No. 1 to Registration Statement on Form S-1
Filed March 21, 2011
File No. 333-172729**

Dear Mr. Currier:

We have limited our review of your registration statement to those issues we have addressed in our 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 by amending your registration statement and providing the requested information. Where 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 registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Although we had previously determined not to review your registration statement, the concurrent filing of your confidential treatment request for portions of Exhibit 10.35 with Amendment No. 1 to the registration statement, in addition to other factors, compels us to undertake a limited review at this time. Comments regarding your confidential treatment request will be sent under separate cover. Please be advised that comments on the outstanding confidential treatment request must be resolved before we will accept a request to accelerate the effectiveness of the registration statement.

Selling Shareholders, page 42

2. We note your statement in the fourth paragraph that the shares described in the selling shareholder table consist of shares of common stock and shares of common stock underlying warrants that were issued in a private placement or issued to consultants.

Please clarify your reference to consultants as the footnotes demonstrate that the shares of common stock contained in the selling shareholder table were issued to the selling shareholders in the 2010 Private Placement.

3. In the selling shareholder table, it appears that you have two separate entries for certain selling shareholders, such as Associated Trust Company, N.A. Trustee of Nathaniel Remley Trust, Thomas P. Remley Revocable Living Trust, Thomas P. Remley Trustee, Associated Trust Company, N.A. Trustee of Virginia Remley Trust, and PC&J Performance Fund. Please advise or revise your disclosure accordingly so that there is one consolidated entry for each selling shareholder.
4. In columns B and D of the selling shareholder table, it appears that none of the selling shareholders beneficially owned any shares of common stock prior to the offering and that the selling shareholders will beneficially own shares of common stock after the offering in amounts equal to the number of shares each selling shareholder is offering for resale. We further note that the selling shareholders acquired the securities being offered in August, October, and December 2010. If the amounts reported in columns B and D were inadvertently switched, please so advise and revise your disclosure accordingly, including the percentage ownership in column E. Otherwise, please advise.
5. Please add a row to the selling shareholder table to disclose the total for each column. Please note that the total number of shares of common stock being offered for resale listed in column C should equal the total amount of shares of common stock being registered for resale in the fee table. The current disclosure indicates that the total number of shares of common stock to be offered by the selling shareholders is 20,599,997, not 30,899,994. Therefore, for each selling shareholder, please revise the amount of shares to be offered in column C to include the shares of common stock underlying the warrants. In the footnotes to the selling shareholder table, please separately quantify the number of shares of common stock underlying warrants for each selling shareholder. While we note that you have separately quantified shares of common stock underlying warrants for certain shareholders, the total number of shares underlying warrants referenced in the footnotes should equal the amount of shares underlying warrants being registered for resale in the fee table.

Exhibit 5.1 – Legal Opinion of Richardson & Patel LLP

6. Please arrange for counsel to opine on the corporate laws of Nevada, the jurisdiction where you are incorporated.

James R. Currier
Sionix Corporation
April 6, 2011
Page 3

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company 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.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Jessica Kane at (202) 551-3235 or me at (202) 551-3397 with any questions.

Sincerely,

Jay Ingram
Legal Branch Chief

cc: Kevin Friedmann, Esq.
Richardson & Patel LLP
750 Third Avenue, 9th Floor
New York, NY 10017