



DIVISION OF
CORPORATION FINANCE

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

July 20, 2010

Stephen McCommon
Chief Financial Officer
CDEX Inc.
4555 South Palo Verde Road, Suite 125
Tucson, AZ 85714

**Re: CDEX Inc.
Preliminary Proxy Statement on Schedule 14A
Filed June 30, 2010
File No. 000-49845**

Dear Mr. McCommon:

We have limited our review of your filing to the 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 within ten business days by amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Proposal No. 1 Election of Directors

1. Please clarify the reasons for the different terms of office of your directors. Also tell us in what Exchange Act filing you reported the "recent" amendment to your bylaws to permit three-year terms and with what filing the revised bylaws were included as an exhibit. Refer to Item 5.03 of Form 8-K.
2. Please refer to Section II.B of Securities Act Release No. 9089 (Dec. 16, 2010) and revise your disclosure here accordingly. Also see Regulation S-K Item 401(e).
3. In an appropriate location of your document, please expand to provide the disclosures required by Items 407(c)(2)(vi) and 407(h) of Regulation S-K.

Summary Compensation Table

4. Your reference here and under the heading “Director Compensation” to “non-cash stock-based compensation cost” does not appear to comply with the requirements of Regulation S-K Item 402(n)(2)(v), as revised in Securities Act Release No. 9089 (Dec. 16, 2010). Please revise.

Proposal No. 3

5. Please revise to clarify the reasons you are proposing to increase the number of authorized shares. It is unclear from your current disclosure why your current capital structure is not supportive of additional financing and why you need to “restructure” your equity to “cover” your note obligations. In this regard, if you currently have any plans, arrangements or understandings to issue the additional authorized shares, please provide all disclosure required in the proxy statement as if shareholders were approving the plan or arrangement; see Note A to Schedule 14A. Also, if you committed to present this proposal to your shareholders pursuant to an arrangement with your note holders, please revise to describe that arrangement.
6. Please refer to Release 34-15320 (October 13, 1978) regarding disclosure of the anti-takeover effects of your proposal.
7. Please expand to disclose the number of shares you will have available for issuance before and after this proposal is implemented. Include in such disclosure the number of shares you are required to reserve for issuance upon exercise or conversion of outstanding notes, options, warrants and similar securities.

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 responding to our comments, please provide a written 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

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- 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.

Please contact Joseph McCann at (202) 551-6262 or Geoffrey Kruczek, Senior Attorney, at (202) 551-3641 with any questions.

Sincerely,

Russell Mancuso
Branch Chief