



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-3561

March 4, 2011

Thomas B. Pickens, III  
Chief Executive Officer  
Astrotech Corporation  
401 Congress Ave. Suite 1650  
Austin, Texas 78701

**Re: Astrotech Corporation  
Preliminary Proxy Statement on Schedule 14A  
Filed February 28, 2011**

Dear Mr. Pickens:

We have reviewed your filing 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 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 Four

1. It appears that this transaction may require registration under the Securities Act. We note that Securities Act Rule 145(a)(2) considers statutory mergers or consolidations or similar plans or acquisitions that are submitted to security holders to be offers or sales subject to the registration requirements of the Securities Act "unless the sole purpose of the transaction is to change an issuer's domicile solely within the United States." Because of the changes to your governing documents included in proposal four, it appears that the "sole purpose" of the transaction is not to change your domicile. Please file a registration statement on Form S-4 under the Securities Act, or please advise.
2. Please present each material change in the governing documents as separate matters to be voted upon. Please refer to Exchange Act Rule 14a-4(a)(3).

Thomas B. Pickens, III  
Astrotech Corporation  
March 4, 2011  
Page 2

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 Exchange Act of 1934 and all applicable Exchange 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.

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
- 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.

You may contact John Dana Brown at (202) 551-3859 if you have questions regarding these comments.

Sincerely,

John Dana Brown  
Attorney-Advisor

cc: John M. Porter  
Fax: (512) 485-9531