

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

March 11, 2011

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

Re: Astrotech Corporation

Revised Preliminary Proxy Statement on Schedule 14A

Filed March 9, 2011

Dear Mr. Pickens:

We have received your response to our prior comment letter to you dated March 4, 2011 and have the following additional comments.

Proposal Four

- 1. We note on page 32 that the Washington bylaws allow the holders of not less than one-tenth of all the outstanding shares to call a special meeting, but that the Delaware bylaws will provide that a special meeting may be called by shareholders holding at least a majority of the outstanding shares. It appears that the sole purpose of the transaction may not be to change your domicile solely within the United States. Please provide us your analysis as to why this does not require registration under the Securities Act.
- 2. In this regard please tell us why this matter should not be presented as a separate matter to be voted upon pursuant to Exchange Act Rule 14a-4(a)(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 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;

Thomas B. Pickens, III Astrotech Corporation March 11, 2011 Page 2

- 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

ce: Shawn Shillington Fax: (512) 322-8368