

March 24, 2010

Mary Beth Breslin  
Senior Attorney  
Division of Corporate Finance  
U.S. Securities and Exchange Commission

**Re: OSI Systems, Inc. ("OSI")  
Post-Effective Amendment to Form S-3  
Filed March 9, 2010  
File Numbers 333-73618, 333-75228, 333-100791, 333-101716,  
333-119704 and 333-148937 (collectively, "Post-Effective Amendments")**

Dear Ms. Breslin:

We are in receipt of your letters, each dated March 16, 2010, regarding your review the Post-Effective Amendments, each filed March 9, 2010.

Each of your letters indicates:

General

- 1. We note that the staff of the Division of Corporate Finance currently has outstanding comments related to the company's Form 10-K for the fiscal year ended June 30, 2009. Please note that all comments relating to the staff's open review of your Form 10-K and related filings will need to be resolved before effectiveness of the post-effective amendment.**

We acknowledge this comment with respect to each of the Post-Effective Amendments and will continue to work with the staff of the Division of Corporate Finance to resolve the outstanding comments related to the company's Form 10-K for the fiscal year ended June 30, 2009.

OSI further acknowledges that:

- it is responsible for the adequacy and accuracy of the disclosures in its filings;
- staff comments or changes to disclosures in response to staff comments in the filings reviewed by the staff do not foreclose the U.S. Securities and Exchange Commission ("Commission") from taking any action with respect to the filing; and
- it 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.

We thank you for your assistance in our compliance with applicable disclosure requirements and in our effort to enhance the overall disclosures in our filings.

Sincerely,

/s/ Alan Edrick  
ALAN EDRICK  
Chief Financial Officer