

March 24, 2010

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

**Re: OSI Systems, Inc. ("OSI")
Form 10-K for the fiscal year ended June 30, 2009,
Filed August 28, 2009**

Dear Ms. Breslin:

We are in receipt of your letter dated March 11, 2010, regarding your review of OSI Form 10-K for the fiscal year ended June 30, 2009, filed August 28, 2009 ("10-K").

Your letter indicates:

Exhibit 10.7

- 1. We note your response to our prior comment 1; however we reissue the comment with respect to the requirement of Item 601(b)(10) that you file a complete version of the credit agreement, including all attachments. To the extent you believe, as indicated in footnote 1 to your supplemental response, that disclosure of the information in the attachments could result in substantial competitive harm, you may seek confidential treatment for that information pursuant to rule 24b-2 of the Exchange Act. For guidance on submitting such a request, please refer to Staff Legal Bulletin No. 1, available on our website at www.sec.gov. Select "Corporate Finance," then select "Compliance and Disclosure Interpretations" and then select "Confidential Treatment Requests."**

In response to your comments, we will promptly re-file on Form 8-K/A that certain Credit Agreement between OSI and Wachovia Bank, N.A., as administrative agent for several lending banks and other financial institutions (the "Credit Agreement") along with its exhibits and schedules. Please note that pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended, we will omit from such filing certain schedules to the Credit Agreement and submit them to you for review.

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