

March 8, 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,
Form 10-K/A for the fiscal year ended June 30, 2009 and
Form 8-K, dated January 27, 2010**

Dear Ms. Breslin:

We are in receipt of your letter dated February 26, 2010, regarding your review of: (A) OSI Form 10-K for the fiscal year ended June 30, 2009, filed August 28, 2009 ("10-K"), (B) OSI Form 10-K/A for the fiscal year ended June 30, 2009, filed October 28, 2009 ("10-K/A") and (C) OSI Form 8-K, dated January 27, 2010 ("8-K").

A. With respect to the 10-K, your letter indicates:

Exhibit 10.7

1. **We note that the credit agreement dated July 27, 2007, filed as exhibit 10.1 to your Form 8-K filed July 30, 2007, does not appear to include all of the schedules or exhibits to the agreement. Please explain why these attachments were not filed pursuant to Item 601(b)(10) of Regulation S-K or refile the agreement with all attachments. Also, please ensure that you have filed the final version of your agreements as exhibits. It appears that you have not signed, or have not included conformed signatures to this exhibit.**

We confirm that the credit agreement dated July 27, 2007 (the "Credit Agreement") attached as Exhibit 10.1 to the Form 8-K that we filed on July 30, 2007, is the final version of such agreement.

With respect to the schedules and exhibits to the Credit Agreement, we assessed at the time of the filing of the relevant Form 8-K that those schedules and exhibits were not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.

The schedules to the Credit Agreement contained no contractual terms. Rather, they contained only data about our company that lending institutions used in making their decisions about whether to extend credit. For example, the schedules listed the insurance policies that we maintained at the time of our entry into the agreement, including limits of coverage; the bank accounts,

including account numbers, we then held; the physical location of certain of our assets; and other similar types of data.¹ The schedules therefore did not contain any information that could reasonably have been considered material, individually or in the aggregate, to an investor's understanding of the terms of the Credit Agreement.

For similar reasons, the exhibits to the Credit Agreement were not filed. The exhibits constituted document forms or sample forms to be used for various perfunctory matters, such as sending notices to the lending institutions, to certify or further evidence our compliance with terms contained in the Credit Agreement, and to provide the lending institutions with financial data specified in the Credit Agreement, among other similar matters. To have filed these forms would therefore have been duplicative of information already contained in the Credit Agreement and would not have provided any information that could reasonably have been considered material, individually or in the aggregate, to an investor's understanding of the terms of the Credit Agreement.

For the reasons set forth above, we determined that the exhibits and schedules to the Credit Agreement were not required to be filed.

B. With respect to the 10-K/A, your letter indicates:

Compensation Discussion & Analysis, page 5

2. **In future filings, please expand your discussion of the "qualitative and quantitative indicators of corporate and individual performance" used to determine the level and composition of compensation paid to your named executive officers, clarifying how the committee decides the amount of each compensation component to pay each named executive officer, how the amount of each material increase or decrease was determined, and the how the specific amount of the differences among compensation of the named executives was determined. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, we would expect to see an explanation of why the stock awards granted to each named executive officer doubled or tripled from fiscal 2008 to 2009, and an analysis of the material changes to and differences of the disclosed salaries, bonuses, and option awards.**

In response to your comments, in applicable future filings we will comply with your requests.

¹ Please also note that much of such data constitutes sensitive, proprietary and confidential information, the disclosure of which would result in significant risk of competitive harm.

Executive Compensation Program Elements, page 6

3. We note your disclosure on page 6 that the committee reviews the compensation components against surveys of a peer group “with the intent to establish targeted levels of base salary, annual incentive bonus and long-term incentive compensation.” In future filings, please briefly discuss how each compensation component you provide to the named executive officers relates to the data you have analyzed from the peer companies and include an analysis of where actual payments actually fell within the targeted range. If any of your named executive officers are compensated at levels that are materially different from the targeted levels of compensation, please also provide discussion and analysis as to why. In addition, in your applicable future filings, please identify the peer companies you use.

In response to your comments, in applicable future filings we will comply with your requests.

Annual Incentive Bonus, page 6

4. In future filings, please provide the specific performance targets to be achieved in order for your named executive officers to earn the annual incentive bonus. To the extent you believe that disclosure of such information on a historical basis, would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b) of Regulation S-K, please provide us with a detailed explanation supporting your conclusion. To the extent that it is appropriate to omit specific targets or performance objectives, you are required to provide appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Refer also to question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available on our website at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>. In discussing how difficult or likely it will be to achieve the target levels or other factors, you should provide as much detail as necessary without disclosing information that poses a reasonable risk of competitive harm.

In response to your comments, in applicable future filings we will comply with your requests.

- C. Your letter indicates with respect to the 8-K:

Item 2.02 Results of Operations and Financial Condition

5. We note that you present non-GAAP measures such as non-GAAP earnings per share and non-GAAP net income. Please note that Instruction 2 to Item 2.02 of Form 8-K requires that when furnishing information under this item you must provide all the disclosures required by paragraph (e)(1)(i) of Item 10 of Regulation S-K, including a

reconciliation to the directly comparable GAAP measure for each non-GAAP measure presented and explain why you believe the measures provide useful information to investors. Please revise your non-GAAP disclosures in future filings to comply with the referenced guidance.

In future filings, in order to make the comparison more clear, we will present reconciliations of non-GAAP to GAAP measures in tabular format. However, we believe that for each presentation of non-GAAP measures in the Form 8-K, dated January 27, 2010, we did provide a reconciliation to the directly comparable GAAP measure as well an explanation of why we believed that the non-GAAP measures provided useful information to investors. We provided such reconciliations and explanations directly in the text of the presentation.

The presentation of GAAP earnings per share and net income information that we furnished was (a) presented in an equally prominent way with non-GAAP information, (b) directly comparable to the non-GAAP disclosures made and (c) reconciled with the non-GAAP disclosures using a clearly understandable method. For these reasons, we believe that our Form 8-K, dated January 27, 2010, was compliant with paragraph (e)(1)(i) of Item 10 of Regulation S-K.

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