



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

Mail Stop 3030

February 26, 2010

VIA U.S. MAIL and FACSIMILE

Mr. Alan Edrick
Chief Financial Officer
OSI Systems, Inc.
12525 Chadron Avenue
Hawthorne, CA 90250

RE: **OSI Systems, Inc.**
Form 10-K for the fiscal year ended June 30, 2009
Filed August 28, 2009
Form 10-K/A for the fiscal year ended June 30, 2009
Filed October 28, 2009
Form 8-K dated January 27, 2010
File No. 000-23125

Dear Mr. Edrick:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for Fiscal Year Ended June 30, 2009

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.

Form 10-K/A filed October 28, 2009

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.

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.

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.

Form 8-K dated January 27, 2010

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.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please submit your cover letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Dennis Hult at (202) 551-3618 or Jay Webb, Reviewing Accountant, at (202) 551-3603 if you have any questions regarding comments on the financial statements. Please contact Louis Rambo at (202) 551-3289 or me at (202) 551-3625 if you have questions on any other comments.

Sincerely,

Mary Beth Breslin
Senior Attorney