



2 Tech Drive, Suite 201
Andover, MA 01810
direct: 978.645.5500
fax: 978.557.5160
www.mksinst.com

February 18, 2009

Mary Beth Breslin, Senior Attorney
United States Securities & Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549-6010

RE: MKS Instruments, Inc.
Annual Report on Form 10-K for fiscal year ended December 31, 2007
Filed February 28, 2008
File No. 000-23621

Dear Ms. Breslin:

This letter is submitted to you on behalf of MKS Instruments, Inc. ("MKS") in response to your letter to Mr. Berlinghieri dated February 10, 2009. We have included your question below, and have provided our answer beneath it.

Form 10-K for fiscal year ended December 31, 2007

Item 11. Executive Compensation, page 68

Question 1. We note your response to comment 4. Please expand your explanation for why you believe disclosing the historical earnings targets applicable to your Management Incentive Bonus Plan will result in competitive harm to you. For example, please clarify how disclosing product groups' earning targets for a past year would "provide competitors with insight into the product group's economic structure and profit model." Tell us why a past year's targets would necessarily be predictive of your targets and objectives for future years, given that your compensation committee could assign different weights to these objectives or different objectives altogether. Might there be multiple variables that affected actual performance that are unrelated to the performance targets? Also describe in more detail how disclosing the targets used in the past year would result in competitive harm.

Response. We believe that disclosing the historical earnings targets applicable to our Management Incentive Bonus Plan would result in competitive harm to us because it gives our competitors insight into the profit margins of our business groups. We do not disclose product group profit margins and consider such information to be confidential commercial or financial information. For example, Note number 11 to our Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2007 (page 60) presents a revenue breakdown for each of our three overall product groups. Unlike the corporate earnings bonus targets, which are based on a corporate-wide, consolidated operating income incentive targets, our product group bonus targets are based on product group-specific earnings targets. When looked at in conjunction with the historical product group revenues contained in the Notes, a competitor could ascertain MKS' goals for profit margins on a product group basis. While we agree that the actual target earnings goals will fluctuate significantly from year to year, the product group profit margin goals tend to be more stable over time. Accordingly, the disclosure of a past year's profit margin would have a competitive impact on a subsequent year. Knowing our goals for margins on a product group basis would enable our competitors in those product markets to adjust their bids to beat MKS for competitive sales, and thus would result in competitive harm to MKS.

MKS has only had product group targets in 2007 and 2008, so there is a limited history. However, to date, the Compensation Committee has generally approached each year with the same general philosophy, which is to target the midpoint of the achievable product group bonus at or near the expected product group earnings expectations. While this philosophy could change, it has not to date. (Note that 2009 is an anomaly, as the Compensation Committee has determined that due to the current economic crisis, there will be no Management Incentive Bonus Plan for the year.) In addition, while we agree that multiple variables may affect actual performance that are unrelated to the performance targets, it is the disclosure of the targets themselves that result in the disclosure of confidential information.

Accordingly, we have proposed that in future filings, in accordance with Instruction 4 to Item 402(a) of Regulation S-K, we will provide information regarding the difficulty of achieving the product group earnings goals, including historic achievement levels. We hope that this will satisfy the need to give an understanding of the compensation strategies of MKS, while keeping confidential the company's important commercial and financial information.

Please do not hesitate to contact me or Kathleen Burke, General Counsel at (978) 645-5500 should you have any further questions or comments.

Sincerely,

/s/ Ronald C. Weigner

Ronald C. Weigner
Vice President, CFO and Treasurer