



DIVISION OF  
CORPORATION FINANCE

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

December 24, 2014

Via E-mail

Mr. John D. Grampa  
Senior Vice President Finance and Chief Financial Officer  
Materion Corporation  
6070 Parkland Blvd.  
Mayfield Heights, OH 44124

**Re: Materion Corporation  
December 31, 2013 Form 10-K filed March 14, 2014  
September 26, 2014 Form 10-Q filed October 30, 2014  
File No. 1-15885**

Dear Mr. Grampa:

We have reviewed your filings and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances then please tell us why in your response. After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the year ended December 31, 2013

Controls and Procedures, page 87

1. We note the restatements caused by the material weakness related to physical inventory, the Item 4.02 Form 8-K filed February 26, 2014, and the information provided in the transcript of the 2013 fourth quarter earnings call. Given the materiality of your inventories to your financial statements, please provide us with additional information so we can fully understand the issue.
  - Fully explain how the error occurred. We note from the transcript that the error was in the “use” of a system-generated report and was “clerical in nature”. Please provide enough detail so we can understand the extent to which the financial statement error was caused by “a new system report” and/or by a “clerical” error and/or by the \$10 million theft of silver referenced on page 10.
  - Tell us exactly what you did differently in the 4<sup>th</sup> quarter that enabled you to detect the error.

- Tell us whether physical inventory counts have consistently been performed on a quarterly basis in light of the material risks inherent in the accounting for precious metals inventory referenced in your letter to us dated August 16, 2012.
- Tell us how the specific remediation actions you propose would have prevented the 2013 inventory accounting error.
- Given that your 2013 Forms 10-Q disclosed that there had been no material changes in internal controls over financial reporting, please clarify how you determined that the accounting error did not relate to prior periods.
- Describe the alternate procedures you used to substantiate the inventory balances reported at December 31, 2013 and in the 2014 Forms 10-Q.
- Quantify the actual book to physical inventory losses identified in each of your 2013 and 2014 quarterly periods.
- We note your disclosures through the third quarter of 2014 that “As new controls are still being developed and others have not been in place long enough to provide sufficient assurances to support the conclusion that the identified material weakness has been fully remediated.” However, it is not clear to us why the material weakness has not yet been remediated if the error was primarily due to a clerical error. Please fully describe the specific factors that you considered in concluding that there was a material weakness in internal control over financial reporting for inventory as of September 26, 2014.

Form 10-Q for the period ended September 26, 2014

Liquidity and Capital Resources, page 22

2. We note the change in inventories has had a material adverse impact on your operating cash flows. The ratio of inventory as a percentage of quarterly cost of sales increased from 89% at September 27, 2013 to 96% at September 26, 2014, which increase had an 80% adverse impact on operating cash flows due to the disproportionately higher inventory balance. MD&A does not appear to disclose any material increases in product costs that could explain the variance. Please explain in future filings the factors contributing to this material variance. Show us what your disclosure would have looked like as of September 26, 2014. Refer to Sections 501.04 and 503.13.b.1 of the FRC for guidance. Lastly, we note your response dated August 6, 2012 to comment 4, wherein you told us that you “provide comments on changes in segment inventory levels to provide additional insight and supplemental information relative to inventory movements when warranted.” Given the large increase in the variance of the inventory to cost of sales ratio and the material negative impact it had on liquidity, it appears such additional disclosures are required for readers to understand the disparity.
3. Please explain to us the nature of the \$1.6 million long-term income taxes liability balance.

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We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written 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 filings; 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.

You may contact Jenn Do at (202) 551-3743, Al Pavot at (202) 551-3738, or me at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Sherry Haywood at (202) 551-3345, or Jay Ingram, Legal Branch Chief, at (202) 551-3397, with any other questions

Sincerely,

/s/ Terence O'Brien

Terence O'Brien  
Branch Chief