



DIVISION OF
CORPORATION FINANCE

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

May 30, 2012

Via E-mail

Mr. Brian Wuebbels
Executive Vice President and Chief Financial Officer
MEMC Electronic Materials, Inc.
501 Pearl Drive
St. Peters, Missouri 63376

**Re: MEMC Electronic Materials, Inc.
Form 10-K for the fiscal year ended December 31, 2011
Filed February 29, 2012
Amendment No. 1 to Form 10-K for the fiscal year ended December 31, 2011
Filed March 1, 2012
File No. 001-13828**

Dear Mr. Wuebbels:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Amendment No. 1 to Form 10-K filed March 1, 2012

1. Please further amend your Form 10-K to include the complete text of the item you amended, *Item 8. Financial Statements and Supplementary Data*, as required by Exchange Act Rule 12b-15.
2. In addition, your amendment must include new certifications by your principal executive officer and your principal financial officer in Exhibits 31 and 32 as required by Exchange Act Rule 12b-15.

Form 10-K for the Fiscal Year Ended December 31, 2011 filed February 29, 2012

Item 8. Financial Statements and Supplementary Data

Note 3. Restructuring, Impairment and Other Charges

Asset Impairments, *Long-lived Asset Impairments*, page 55

3. We note your disclosure that the net realizable salvage value of the Merano, Italy facility was primarily based on an appraisal. Please describe to us and revise future filings to clarify the nature and extent of the third party appraiser's involvement and management's reliance on the work of the independent appraiser. Please refer to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections, which can be found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>, and which would be applicable to the extent your Form 10-K is incorporated by reference into any registration statement.

Item 9A. controls and Procedures, page 108

(a) Evaluation of Controls and Procedures, page 108

4. Giving specific consideration to omitting a signed audit opinion in your Form 10-K and excluding the proper certifications with your amendments, please explain to us how you reached your conclusion that the information disclosed in your Exchange Act reports was recorded and reported within the time periods specified in the SEC rules and forms – i.e., that your disclosure controls and procedures were effective as of December 31, 2011. Discuss any weaknesses or deficiencies you identified as result of these mistakes and any steps you have undertaken to mitigate those weaknesses or deficiencies.

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 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 filing;
- 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

Mr. Brian Wuebbels
MEMC Electronic Materials, Inc.
May 30, 2012
Page 3

- 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 Julie Sherman, Staff Accountant, at (202) 551-3640 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have any questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant