

Mail Stop 6010

August 29, 2006

By U.S. Mail and Facsimile to (636) 474-5158

Mr. Kenneth H. Hannah  
Senior Vice President and Chief Financial Officer  
MEMC Electronic Materials, Inc.  
501 Pearl Drive (City of O'Fallon)  
St. Peters, Missouri 63376

**RE: MEMC Electronic Materials, Inc.  
Form 8-K filed August 10, 2006  
File No. 1-13828**

Dear Mr. Hannah:

We have reviewed your filings and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your future documents 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 8-K filed August 10, 2006

1. We see that you have been unable to file your Forms 10-Q for the quarters ended March 31 and June 30, 2006. We also see you plan to file such reports before the end of your third fiscal quarter of 2006. Please update us about the current status of these filings. Please describe to us the nature of any errors discovered during these interim periods and how they are affecting the timeliness of your filings. For any errors identified, please tell us how each error impacted management's conclusions regarding the effectiveness of their disclosure controls and procedures, and tell us of any anticipated changes to disclosure controls and procedures and/or internal controls over financial reporting to prevent future errors of a similar nature. We may have additional comments after reviewing your response.

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 that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. 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 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.

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 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
- 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.

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You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3603 regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact, Angela Crane, Branch Chief at (202) 551-3554 with any other questions.

Sincerely,

Jay Webb  
Review Accountant