

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

Mail Stop 6010

October 8, 2009

Mr. Richard L. Jones Chief Financial Officer Microwave Filter Company, Inc. 6743 Kinne Street East Syracuse, New York 13057

RE: Microwave Filter Company, Inc. Form 8-K dated October 6, 2009 Filed October 6, 2009 File No. 0-10976

Dear Mr. Jones:

We have reviewed your filing (filings) and have the following comments. Where indicated, we think you should revise your 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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.

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Form 8-K dated October 1, 2009 and filed October 6, 2009

- 1. Please amend your report to include all of the information required by Item 304 of Regulation S-K. Also, include as Exhibit 16 a letter from your former auditors addressing the revised disclosures. You should file your amendment as a Form 8-K/A with the Item 4.01 designation.
- 2. We note that Rotenberg and Company LLP applied for a name change with the Public Company Accounting Oversight Board. Please tell us when EFP Rotenberg LLP will be registered with the PCAOB.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors 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 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 in the filings reviewed by the staff 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.

Please file your supplemental response and amendment via EDGAR in response to these comments within 5 business days of the date of this letter. Note that if you require longer than 5 business days to respond, you should contact the staff immediately to request additional time. 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. Richard L. Jones Microwave Filter Company, Inc. October 8, 2009 Page 3

If you have any questions, please call me at 202 551-3618 or Jeffrey Jaramillo, Accounting Branch Chief at 202 551-3212. You may also speak with Martin James, Senior Assistant Chief Accountant at 202 551-3671.

Sincerely,

Dennis C. Hult Staff Accountant