



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

February 25, 2010

VIA U.S. MAIL AND FAX 315-463-1467

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

**Re: Microwave Filter Company, Inc.
Form 10-K for the year ended September 30, 2009
Filed December 16, 2009
File No. 000-10976**

Dear Mr. Jones:

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 document. Where indicated, we think you should revise your document 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 10-K for the year ended September 30, 2009

Exhibit 31

1. We note that your annual report contains management's internal control report as required by Item 308T of Regulation S-K. As such, your certifications should include the introductory language in paragraph 4 of the certification that refers to the certifying officers' responsibility for establishing and maintaining internal control over financial reporting for the company as well as the language of paragraph 4(b) of Item 601(b) (31) of Regulation S-K. Please amend this Form 10-K, as well as your Form 10-Q for the fiscal quarter ended December 31, 2009, to include corrected certifications that are currently signed and dated and include the required language. You may provide abbreviated amendments that consist of a cover page, explanatory note, signature page, and paragraphs 1, 2, 4, and 5 of the certification.

Further, in all future filings including the amended Form 10-K and Form 10-Q, please revise the certifications to present them in the exact form as set forth in Item 601(b)(31) of Regulation S-K. For example, remove the title of the certifying officer from the first sentence and include it after the signature.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your amendment 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 amendment and 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 investment 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

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- 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.

You may contact Andri Boerman at (202) 551-3645 or me at (202) 551-3212 if you have any questions regarding this comment. In this regard, do not hesitate to contact Martin F. James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Jeffrey Jaramillo
Accounting Branch Chief