



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

Mail Stop 3030

January 6, 2010

Via Facsimile and U.S. Mail

Mr. Rondald L. Wheet
Chief Executive Officer
Revolutions Medical Corporation
670 Marina Drive, 3rd Floor
Charleston, SC 29492

**Re: Revolutions Medical Corporation
 Form 10-K for the Year Ended December 31, 2008
 Filed March 31, 2009
 Form 10-Q for the Quarter Ended September 30, 2009
 File No. 000-28629**

Dear Mr. Wheet:

We have reviewed your response letter dated December 18, 2009 and we have the following additional 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 comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In 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.

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 December 31, 2008

Item 6. Plan of Operation, page 16

1. Please refer to prior comment 1. As previously requested, please revise this section to provide an analysis of your results of operations. Discuss why each line item within your income statement such as operating expenses, interest income, interest expense, etc. have fluctuated from December 31, 2007 to December 31, 2008. Refer to the guidance in Item 303(A)(3) of Regulation S-K.

Item 8A. Controls and Procedures, page 17

2. We note your response to prior comments 2 and 3. Please amend your Form 10-K to include the disclosure included within your proposed disclosure related to management's assessment of internal control over financial reporting as of December 31, 2008 and management's conclusion as to the effectiveness of your disclosure controls and procedures as of December 31, 2008.
3. Please refer to prior comment 4. We do not see where you have addressed our comment within Exhibit II. As previously requested, please revise your future filings, including any amendment to this Form 10-K and your March 31, June 30, and September 30, 2009 Forms 10-Q, to disclose management's plans, if any, or actions already undertaken for remediating the deficiencies identified.

Notes to Financial Statements, page 31

Note 1. Summary of Significant Accounting Policies, page 31

Long-lived assets, page 32

4. We note your response to prior comment 6. You state in the proposed revised disclosures that the goodwill relates to the "Color MRI Technology" acquired. With respect to your initial accounting for the transaction, please explain to us why you concluded it was appropriate to record the value to goodwill rather than to an amortizing intangible asset. In this regard, specifically tell us how you considered whether the "Color MRI Technology" met the definition of an intangible asset under paragraph 39 of SFAS 141.
5. Further to the above, you state that your annual impairment evaluation is based on your assessment of the marketability of the technology. Please explain to us how this policy for your annual goodwill impairment evaluation is consistent with section 350-20-35 of the FASB Accounting Standards Codification.

Exhibit 31.1 and 32.1

6. We note your response to prior comments 10 and 11 and the proposed revised certifications included as Exhibits V through XII. When filing the amended documents, please ensure that each certification is currently dated and signed. In this regard, we note certain of the draft exhibits appear to be dated as of March 30, 2009.

Form 10-Q for the Quarter Ended September 30, 2009

Balance Sheet, page 3

7. Please explain to us the cause of the increase in goodwill in the quarter ended September 30, 2009, including a discussion of how the additions to goodwill have been reflected in the statement of cash flows for the nine months ended September 30, 2009.

Item 4. Controls and Procedures, page 16

8. Please refer to prior comment 12. It does not appear that your response has addressed our comment. In your response, you state that based on the persistence of the material weaknesses, the principal executive officer has revised his opinion and you refer to Exhibit II, which includes a conclusion that disclosure controls and procedures are not effective. However, we note from your response to prior comment 13 that your proposed revised disclosures for the Forms 10-Q for the periods ended March 31 and June 30, 2009 included in Exhibits XIII and XIV include a conclusion that disclosure controls and procedures are effective. Please clarify for us the conclusions regarding disclosure controls and procedures as of March 31 and June 30, 2009. As appropriate, revise the disclosures to be included in the amended Forms 10-Q for the periods ended March 31 and June 30, 2009.

As appropriate, please amend the appropriate filings and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

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You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief