

Mail Stop 6010

January 31, 2007

Mr. Jost Fischer
Chief Executive Officer
Sirona Dental Systems, Inc.
30-00 47th Avenue
Long Island City, New York 11101

**Re: Sirona Dental Systems, Inc.
Form 10-K for the Fiscal Year Ended September 30, 2006
File No. 000-22673**

Dear Mr. Fischer:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those items we have addressed in our comments. Where indicated, we think you should revise your documents in future filings 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 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, 2006

Consolidated Financial Statements as of September 30, 2006

Note 5. Leveraged Buy-Out Transactions, page F-22

MDP Transaction, page F-22

1. We note your disclosure here regarding the fair value of the IPR&D projects and estimated costs to complete at June 30, 2005. In accordance with our prior comment 45 in our letter dated March 10, 2006 and our prior comment 10 in our letter dated May 10, 2006, please revise your disclosures in MD&A in future filings to update the status of the development, including the nature and timing of the remaining efforts for completion, the anticipated completion date and the date you will begin benefiting from the projects, the risks and uncertainties associated with completing development within a reasonable period of time and the risks involved if the IPR&D projects are not completed on a timely basis.

Note 17. Income Per Share, page F-40

2. We note that you have not presented basic and diluted earnings per share or shares outstanding information for periods prior to the Exchange because you believe such information was determined to be not meaningful. Please revise future filings to include the basic and diluted earnings per share calculations and related disclosures for all reporting periods presented or tell us why you do not believe this information is required. Refer to SFAS 128.

Form 8-K dated December 8, 2006

3. We note your presentation of non-GAAP measures including pro forma revenue, pro forma operating income, pro forma net income, pro forma EBITDA and pro forma Adjusted EBITDA. In future filings, please provide all of the disclosures required by Regulation G, Item 10(e) of Regulation S-K, and Question 8 of the FAQ Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003 for each non-GAAP measure presented. Please provide us with a sample of your proposed disclosure. We may have further comment upon reviewing your response.
4. We note that you refer to certain non-GAAP information as “pro forma”. The pro forma terminology has very specific meaning in accounting literature, as indicated by Article 11 of Regulation S-X. Please tell us why you believe it is appropriate to use the “pro forma” terminology here, or otherwise revise your presentation in future filings to omit the pro forma terminology when referring to your non-GAAP information.

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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 comment 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 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
- 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 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 Vaughn
Branch Chief