



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

Mail Stop 6010

October 12, 2007

Mr. Kenneth Ferry
Chief Executive Officer
iCAD, Inc.
98 Spit Brook Road, Suite 100
Nashua, New Hampshire 03062

RE: **iCAD, Inc.**
Form 10-K for the fiscal year ended December 31, 2006
Filed March 22, 2007
File No. 1-09341

Dear Mr. Ferry:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in future filings 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 on 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 as of December 31, 2006

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 26

Overview, page 26

1. We note that customers will substitute analog technology with digital technology in the near future. With a view toward clearer disclosure, please revise future filings to discuss the trend toward digital technology and the anticipated impact on your results of operations.

Critical Accounting Policies, page 27

2. We see your critical accounting policy regarding revenue recognition. However, the disclosure merely repeats the policies from your significant accounting policies footnote without elaboration. Please expand future filings to describe the specific factors that in your view make it critical. Discuss the nature of estimates and uncertainties about those estimates inherent to your revenue recognition policy, including how you make those estimates. Discuss how different assumptions, methods or conditions might effect your financial statements.

Note 2. Summary of Significant Accounting Policies, page 57

(e) Accounts Receivable and Allowance for Doubtful Accounts, page 58

3. We note you significantly reduced your allowance for doubtful accounts from fiscal year 2005 to fiscal year 2006. We also note your disclosure that the actual write-offs might exceed the recorded allowance. Given the minimum decrease in your accounts receivable, please explain why you believe your current allowance is adequate.

(i) Goodwill, page 60

4. We see that goodwill is approximately 73% of your total assets at December 31, 2006. Please tell us the specific facts, assumptions and estimates that you considered in your goodwill impairment analysis supporting your conclusion that no impairment of goodwill existed at December 31, 2006. For reference see paragraphs 19 – 22 of SFAS 142. Revise future filings to state in sufficient detail your accounting policy for reviewing goodwill for impairment. Discuss the annual date when you test goodwill for impairment, whether you apply the two-step method under SFAS 142, the level at which you test goodwill for impairment, and how you estimate fair value including any significant assumptions.

(j) Revenue Recognition, page 60

5. We note that you recognize a portion of the revenue when the product is shipped and a portion when the installation occurs. Please describe all the installation obligations and explain your reasons for concluding that they are not essential to the functionality of the product. Document for us how you have met the criteria outlined in SAB 104 to recognize revenue upon shipment.

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 with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please submit your cover letter on EDGAR. 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 filings;
- 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.

Kenneth Ferry
iCAD, Inc.
October 12, 2007
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You may contact Dennis Hult, Staff Accountant, at (202) 551-3618 or me at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Angela J. Crane
Accounting Branch Chief