



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

January 14, 2008

VIA U.S. MAIL AND FAX (651) 687 - 0485

Mr. Mark P. O'Neill
Manager of Finance and Accounting
Hypertension Diagnostics, Inc.
2915 Waters Road, Suite 108
Eagan, Minnesota 55121

Re: Hypertension Diagnostics, Inc.
Form 10-KSB for the year ended June 30, 2007
Filed September 27, 2007
File No. 000-24635

Dear Mr. O'Neill:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. 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 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 filings. 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-KSB for the fiscal year ended June 30, 2007

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 29

Critical Accounting Policies, page 29

1. Please tell us more about your inventory and related allowance for excess and obsolete inventory. We note your results of operations for fiscal year ended June 30, 2003 included an \$850,000 charge to cost of goods sold related to inventory write-downs. Tell us about this adjustment and how you concluded that your inventory valuation adjustment that had been made in the fiscal year 2003 was appropriate. Refer to ARB 43, chapter 4 in your response. Please also address the following:
 - We note the raw materials were written down to "estimated net realizable value" to account for quantities in excess of those expected to be sold currently. Please tell us if the inventory written down was additionally reviewed for individual facts and circumstances that would confirm the need for the write-off. If so, please tell us the individual facts and circumstances you reviewed.
 - Explain if these were raw material used in products you produce for the majority of your customers.
 - Quantify the original carrying value and the reduced carrying value of each major category of raw material. Explain how the reduced value was determined.
 - Tell us the remaining balances of each major category at September 30, 2007.
 - It appears that the use of these raw materials previously written down had a significant impact on your gross profit margins. Please quantify.
 - We may have additional comments after reviewing your response.
2. In this regard, we note your general and administrative expenses totaled \$2,381,310 for the fiscal year 2007 and included royalties, depreciation and amortization, salaries, etc. Please explain why none of these expenses relate to cost of goods sold. For example, we note that outside consultants provided services pertaining to manufacturing. Please explain why these expenses are not included in cost of goods sold.

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

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comments and provides any requested supplemental 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 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.

You may contact Andri Boerman, Staff Accountant, at (202) 551-3645 or me at (202) 551-3554 if you have any questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Angela Crane
Branch Chief