



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

January 8, 2010

Mail Stop 4631

Mr. James C. Katzaroff, President
Advanced Medical Isotope Corporation
8131 W. Grandridge Blvd., Suite 101
Kennewick, WA 99336

**Re: Advanced Medical Isotope Corporation
Amendment No. 5 to Registration Statement on Form 10
Filed on December 23, 2009
File No. 0-53497**

Dear Mr. Katzaroff:

We have reviewed your filing and 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 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 supplemental 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 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.

Registration Statement on Form 10

Index to Exhibits, page 38

1. Footnotes 1 and 2 to the index should be revised to state that the exhibits were "previously filed" with the Form 10 filed on November 12, 2008 and with the Form 10/A filed on "February 7, 2009, respectively. As currently presented, you are incorporating exhibits into the same filing. Please revise.

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

2. Regarding comment 1 from our letter dated September 11, 2009 and comment 4 from our letter dated July 10, 2009, we note that in your response of August 21, 2009, you state you modified your growth and operating plans such that only \$1 million would be needed to fund your operations for an additional year. You have amended your Form 10 to include this information. However, note 2 to the financial statements in your Form 10-Q dated September 30, 2009 states again that you need \$3 million to continue operations for the next 12 months, while your liquidity section of MD&A states that \$1 million is needed. Please amend your Form 10-Q to clarify what your liquidity needs are in order to continue operations in the short term and long term. Make sure that the disclosure in the notes to your financial statements and MD&A are consistent. Further, discuss how you have modified your growth and operating plans in order to ensure your continued operations. We may have additional comments upon review of your response.
3. We note that in several places in your September 30 Form 10-Q, you refer to a quarter or nine months ended June 30, 2009 instead of September 30, 2009. For example, your Liquidity and Capital Resources section of MD&A refers to “nine month periods ending June 30, 2009 and June 30, 2008”, and in your discussion of changes in internal control over financial reporting on page 29, you refer to “the quarter ended June 30, 2009”. Other examples of this type of error may appear elsewhere in the Form 10-Q. Please review and revise these references in an amended Form 10-Q.

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your response on EDGAR as a correspondence file. 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 filings reviewed by the staff to be certain that they have provided all information required under the Securities Exchange of 1934 and that they have provided all information investors require for an informed 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:

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- 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 connection with our review of your filing or in response to our comments on your filing.

You may contact Jeffrey Gordon, Accountant, at (202) 551-3866 or Nudrat Salik, Reviewing Accountant, at (202) 551-3692 if you have questions regarding comments on the financial statements and related matters. Please contact Dorine H. Miller, Financial Analyst, at (202) 551-3711 or me at (202) 551-3766 with any other questions.

Sincerely,

Pamela A. Long
Assistant Director

cc: Andrea Cataneo, Esq.
Sichenzia Ross Friedman Ference LLP
61 Broadway, 32nd Floor
New York, NY 10006