



DIVISION OF
CORPORATION FINANCE

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

August 20, 2010

Christopher F. Tirotta
President
American Scientific Resources, Incorporated
1112 Weston Road, Unit 278
Weston, FL 33326

**Re: American Scientific Resources, Incorporated
Amendment No. 3 to Registration Statement on Form S-1
Filed August 13, 2010
File No. 333-164517**

Dear Dr. Tirotta:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Fee Table

1. There appears to be no entry on your table that relates to footnote (3) while two entries relate to footnote (2). In addition, please reconcile the number of common stock issuable upon exercise of warrants with the description in the bullet points above your selling security holders table and the footnotes below the table.

Prospectus Summary, page 4

2. Regarding your revisions in response to prior comment 1, please update the order status of your Disintegrator. To the extent that orders have not shipped, please disclose the reasons for the delay.

Risk Factors, page 6

If our products are found to have defects..., page 8

3. We note your response to prior comment 7 and your reference to malfunction agreements. It is unclear if these are the “warranty and other protective agreements” that you mention in that sentence or whether there are additional agreements. Please clarify. In addition, describe the material terms such as termination and other important provisions.
4. In addition, please address the risk, if any, related to the enforceability of these oral agreements.

Selling Security Holders, page 13

5. We note your response to prior comment 9; however, it is unclear how holding shares “for over three months” is indicative of investment intent, particularly where shares were acquired in exchange for services. Please clarify.
6. We reissue prior comment 10 because you did not provide the requested information. In addition, you indicate in your response that securities were issued in consideration for agreeing to provide services, rather than for the services themselves. It is therefore unclear whether these agreements are enforceable. In that regard, please provide us an analysis on remedies available to you under state law should the counterparty not provide any services. Provide all authority on which you rely.

Description of Business, page 19

7. With a view toward disclosure, please tell us the reason for your deletion of the last sentence on page 19.

Kidz-Med Thermofocus 5-in1, page 20

8. In the article you provided in response to prior comment 13, please indicate to us where it states that taking one’s temperature on the forehead is as accurate as rectal or tympanic readings. It appears that the article only concludes that the temperature readings are accurate and then only as applied to Thermofocus thermometers. If true, revise your disclosure accordingly.
9. To the extent that Tecnimed was affiliated in any way with the preparation of the article you submitted, please disclose.

10. We note your response to prior comment 17. Please revise, where appropriate, to disclose your distribution arrangements with Third World distributors. File any material agreements with your next amendment.

The Disintegrator, page 22

11. We reissue prior comment 19 as it relates to the reason for the delay in fulfilling the Disintegrator Plus order.

Legal Proceedings, page 26

12. Please tell us whether any of the shares issued in connection with the settlement of litigation are being registered pursuant to this registration.

Purchase of Disintegrator Patent, page 29

13. We reissue prior comments 26 and 27. Please clarify the meaning of the reference to “certain other products that may be introduced by Mr. Roth.” For instance, are you referring to products that Mr. Roth himself may invent?
14. Please clarify how “new revenue” is defined. Do you mean new sources of revenue or simply an increase in revenue?

Lender 1, page 37

15. Refer to the fourth paragraph in this section. Please reconcile the convertible note financing amount in the first sentence with the first paragraph in this section. Also, expand the disclosure in the last sentence of the fourth paragraph to clarify how the closing price of your stock is related to the shares issuable.

Item 16. Exhibits, page 54

16. Given your revenues, please tell us the basis upon which you determined that the agreement to settle claims against you in excess of \$5.5 million is not material.

Financial Statements

17. Please update the financial statements as required by Rule 8-08 of Regulation S-X.

Exhibit 23.1 Consent of Independent Registered Public Accounting Firm

18. Please include a currently dated and signed consent from your independent auditors with any amendment of the filing.

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 the information the Securities Act of 1933 and all applicable Securities Act rules require. 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Jeanne Bennett at (202) 551-3606 or Gary Todd, Accounting Reviewer, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Gabriel Eckstein at (202) 551-3286 or Daniel Morris, Special Counsel, at (202) 551-3314 with any other questions.

Sincerely,

Martin James
Acting Assistant Director

cc (via fax): David B. Manno, Esq.
Sichenzia Ross Friedman Ference LLP