



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

DIVISION OF  
CORPORATION FINANCE

February 24, 2015

Alan P. Magerman  
Chairman of the Board and Chief Executive Officer  
Xenonics Holdings, Inc.  
3186 Lionshead Avenue  
Carlsbad, California 92010-4701

**Re: Xenonics Holdings, Inc.**  
**Form 10-K for the Fiscal Year Ended September 30, 2014**  
**Filed January 13, 2015**  
**File No. 001-32469**

Dear Mr. Magerman:

We have reviewed your filing and have the following comments.

Please respond to this letter within ten business days and indicate that you will comply with our comments in future filings. Confirm in writing that you will do so and also explain to us how you intend to comply. If you do not believe our comments apply to your facts and circumstances or do not believe compliance in future disclosure is appropriate, please tell us why in your response.

After reviewing your responses to these comments, we may have additional comments.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements, page 14

1. Please remove your reference to reliance on the safe harbor provided by the Private Securities Litigation Reform Act of 1995. Reliance by issuers whose stock is considered "penny stock" is not permitted.

Trends in our Business, page 15

2. We note that you have not generated sufficient revenue to be profitable in the last five years. As a result, you indicate that you will need to expand your customer base beyond the U.S. military and law enforcement into "other markets." Please identify more specifically your other target markets and clarify what steps you plan to take to reach those markets.

Liquidity and Capital Resources, page 16

3. Please disclose how long you believe you will be able to continue current operations without additional financing.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written 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.

You may contact Christie Wong, Staff Accountant, at (202) 551-3684 or Robert Littlepage, Accountant Branch Chief, at (202) 551-3361 if you have questions relating to the financial statements. Please contact Gregory Dundas, Attorney-Advisor, at (202) 551-3436, or me at (202) 551-3810 with any other questions.

Sincerely,

/s/ Larry Spirgel

Larry Spirgel  
Assistant Director