



DIVISION OF
CORPORATION FINANCE

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

August 23, 2010

Mr. Gil Boosidan
Chief Executive Officer
Suspect Detection Systems, Inc.
150 West 56th Street, Suite 4005
New York, NY 10019

Re: Suspect Detection Systems, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed April 14, 2010
Form 10-Q for Quarter Ended March 31, 2010
Filed May 18, 2010
File No. 00-52792

Dear Mr. Boosidan:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your document. 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2009

Item 7. Management's Discussion and Analysis or Plan Operation, page 6

1. Please revise to provide disclosure of a critical accounting estimate related to your goodwill, which is approximately 59% of your total assets as of December 31, 2009. In this regard, disclose the qualitative and quantitative factors that convey to investors the current and ongoing risks related to the recoverability of goodwill. Please refer to Item 303 of Regulation S-K and Section V of our Interpretive Release No. 33-8350. For example, identify the reporting unit at which you test goodwill for impairment. In addition, you should also disclose whether any of your reporting units are at risk of failing step one of the impairment test or that the fair value of each of your reporting units is substantially in excess of carrying value. For each reporting unit that is at risk of failing step one, you should disclose the:
 - Percentage by which the fair value of the reporting unit exceeded carrying value as of the date of the most recent test;
 - Description of the methods and key assumptions used and how the key assumptions were determined;
 - Discussion of the degree of uncertainty associated with the key assumptions. The discussion regarding uncertainty should provide specifics to the extent possible if the valuation model assumes recovery from a business downturn within a defined period of time; and
 - Description of potential events and/or changes in circumstances that could reasonably be expected to negatively affect the key assumptions.

Consolidated Balance Sheets, page F-3

2. Please explain to us and disclose the nature of the balance for advances from customers including the terms of repayment.

1 Summary of Significant Accounting Policies, page F-8

Basis of Presentation and Organization, page F-8

3. We note you refer to the Company as being in the development stage during the year ended December 31, 2008. We also read in the first paragraph on page seven you refer to the Company as being in the development stage during the fiscal year ended December 31, 2009. Please clarify whether the entity remains within the development stage and revise your disclosure if necessary. Refer to FASB ASC 915-205-45-2.

Goodwill, page F-10

4. Please explain to us and disclose what caused goodwill to increase from \$1,033,964 at September 30, 2009 to \$1,325,654 at December 31, 2009.

8 Commitments, page F-14

5. We note you issued common stock, stock options and warrants to employees and non-employees. In this regard, we read your disclosure on page 6. Please revise your disclosure to clarify your method for estimating the fair value of the stock issued for services to be received from non-employees. Please refer to FASB ASC 505-50-50. Lastly, revise to provide the disclosures required by FASB ASC 718-10-50-1 through 50-2 for your share-based payment arrangements with your employees.

9 Business Combination, page F-16

6. Refer to page F-17. We note you acquired a 51% controlling interest in SDS Israel on January 20, 2009. Please explain to us if you recognized 100% of the identifiable net assets of SDS Israel. In this regard, it does not appear you recorded the fair value of the noncontrolling interest in SDS Israel. Please revise your financial statements, or advise. Lastly, please revise your disclosure to meet all the requirements of ASC FASB 805-20-50-1.
7. We note on August 18, 2009 you acquired an additional 7% interest in SDS Israel. Please tell us how you accounted for this change in ownership interest. It does not appear the carrying amount of the noncontrolling interest in SDS Israel was adjusted to reflect the change in the noncontrolling ownership interest in the subsidiary. Please refer to FASB ASC 810-10-45-23. Please revise your financial statements and disclosures, or advise.
8. Please reconcile for us the amount of loss attributable to noncontrolling interest on your consolidated statements of operations to the amount disclosed on your statements of stockholders' equity. Further, explain to us and disclose how you allocated the loss attributable to noncontrolling interest. Please explain whether allocations are based on relative ownership interest or some other contractual agreement. Please advise, or revise.
9. We note on December 18, 2008 you entered into an Investment Agreement with SDS Israel and on July 9, 2009 you entered into a Warrant Agreement with NG. Please explain and disclose whether these Agreements are related and the purpose of the Warrant Agreement. Further, explain whether these Agreements were entered into as a condition of or in contemplation of the January 20, 2009 business acquisition transaction or as separate transactions. In this regard, explain

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to us how the issuance of the warrants was accounted for in the financial statements.

Form 10-Q for the quarter ended March 31, 2010

Supplemental Information of Noncash Investing and Financing Activities, page F-5

10. We note on January 6, 2010 you issued 152,600 shares of common stock to a consultant as a finder's fee valued at \$22,890. Please explain how you accounted for the fee.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings 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 Scott Stringer, Staff Accountant, at 202-551-3272 or Robert Babula, Staff Accountant, at 202-551-3339 if you have questions regarding comments on the financial statements and related matters. Please contact me at 202-551-3720 with any other questions.

Sincerely,
/s/ James Allegretto for
Andrew Mew
Accounting Branch Chief