



DIVISION OF
CORPORATION FINANCE

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

September 7, 2012

Via E-mail

James A. Eberle
Chief Executive Officer
GSE Systems, Inc.
1332 Londontown Blvd., Suite 200
Sykesville, MD 21784

**Re: GSE Systems, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed March 8, 2012
File No. 1-14785**

Dear Mr. Eberle:

We have limited our review of your filing to your contacts with countries that have been identified as state sponsors of terrorism, and we have the following comments. Our review with respect to this issue does not preclude further review by the Assistant Director group with respect to other issues. At this juncture, we are asking you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

General

1. Please tell us about any contacts with Iran, Syria and Sudan since your letters to us of June 29, 2009 and July 30, 2009. As you know, Iran Syria and Sudan are designated as state sponsors of terrorism by the State Department and are subject to U.S. economic sanctions and export controls. Please describe any past, current and anticipated contacts, whether through affiliates, subsidiaries, customers or other direct or indirect arrangements, since your 2009 letters.

For instance, we note from your Form 10-K that your customers include the following companies which have contacts in Iran, Syria, Sudan and/or Cuba, which also is designated as a state sponsor of terrorism and is subject to U.S. asset controls: BP, Statoil, Chevron, Shell Oil and Total. In addition, we note that a 2010 article reports that your vendors include Siemens, which has contacts in Iran, Syria and Cuba. Tell us whether these customers/vendors use your products, components or services in their

contacts or operations in Iran, Syria, Sudan or Cuba, and whether your relationships with any of them involve your nuclear segment. Please also include information about any contacts through Al Qudra Holding, which, according to 2010 news articles, has investments in Syria and Sudan; and through Saudi Basic Industries, which lists an office in Iran on its website.

Finally, please describe any services, products or technologies you have provided to Iran, Syria, Sudan or Cuba, and describe any agreements, commercial arrangements, or other contacts you have had with the governments of these countries or entities controlled by them, since your 2009 letters.

2. Please discuss the materiality of your contacts with Iran, Syria, Sudan and Cuba described in response to the foregoing comment and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any associated revenues, assets, and liabilities for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. Your materiality analysis should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Iran, Syria, Sudan and Cuba.

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 the 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.

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Please contact Jennifer Hardy, Special Counsel, at (202) 551-3767 or me at (202) 551-3470 if you have any questions about the comments or our review.

Sincerely,

/s/ Cecilia Blye

Cecilia Blye, Chief
Office of Global Security Risk

cc: Jeffrey Hough
Chief Financial Officer
GSE Systems, Inc.

Barbara Jacobs
Assistant Director
Division of Corporation Finance