



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-4628

August 17, 2011

Via Facsimile

Andre Levasseur  
Senior Vice President and Chief Financial Officer  
Zarlink Semiconductor, Inc.  
400 March Road  
Ottawa, Ontario  
Canada K2K 3H4

**Re: Zarlink Semiconductor, Inc.**  
**Form 20-F for the Fiscal Year Ended March 25, 2011**  
**Filed June 6, 2011**  
**File No. 001-8139**

Dear Mr. Levasseur:

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 update us on your contacts with Iran since your letters to us of July 31, 2007 and August 27, 2007. As you know, Iran is identified by the U.S. Department of State as a state sponsor of terrorism and is subject to U.S. economic sanctions and export controls. Please tell us about any contacts with Iran since your letters, whether through affiliates, distributors, resellers, subsidiaries, or other direct or indirect arrangements. Your response should describe any agreements, commercial arrangements, or other contacts you

have had with the governments of Iran, Syria or Sudan or entities controlled by these governments.

2. Please discuss the materiality of any contacts with Iran 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.

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: Amanda Ravitz  
Assistant Director  
Division of Corporation Finance