



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

December 20, 2010

Via Mail and Facsimile (630-305-2840)

Kathryn Mikells
Executive Vice President and Chief Financial Officer
Nalco Holding Company
1601 West Diehl Road
Naperville, IL 60563

**Re: Nalco Holding Company
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed February 26, 2010
File No. 1-32342
Response Letter Filed December 8, 2010**

Dear Ms. Mikells:

We have limited our review of your filing to disclosure relating to your contacts with countries that have been identified as a state sponsor 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 supplemental information, so that we may better understand your disclosure. Please be as detailed as necessary in your response. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comment or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. We note the information in your response letter dated December 8, 2010 regarding company policies with respect to doing business in Cuba. Please provide the same information regarding contacts with Cuba as we requested in our letter dated November 9, 2010 regarding contacts with Iran, Syria and Sudan.

2. Please expand your materiality analysis to discuss specifically how doing business with petroleum companies owned by the governments of Iran and Sudan, and perhaps other petroleum companies operating in those countries, may impact your business, including the potential for reputational harm based upon the fact that these countries are reported to finance terrorist activities from profits obtained through the development and exploitation of their petroleum resources.

* * * * *

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit your response letter on EDGAR.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filings include all information required under the Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

Kathryn Mikells
Nalco Holding Company
December 20, 2010
Page 3

Please understand that we may have additional comments after we review your response to our comments. Please contact Jennifer Hardy, Special Counsel, at (202) 551-3767 if you have any questions about the comments or our review. You may also contact me at (202) 551-3470.

Sincerely,

Cecilia Blye, Chief
Office of Global Security Risk

cc: Pamela Long
Assistant Director
Division of Corporation Finance