



DIVISION OF
CORPORATION FINANCE
MAIL STOP 4628

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

June 2, 2010

Mr. Brian P. MacDonald
Chief Financial Officer
Sunoco, Inc.
1735 Market Street, Suite LL
Philadelphia, PA 19103-7583

Re: Sunoco, Inc.
Form 10-K for Fiscal Year Ended December 31, 2009
Filed February 24, 2010
Form 10-Q for Fiscal Quarter Ended March 31, 2010
Filed May 6, 2010
File No. 001-06841

Dear Mr. MacDonald:

We have reviewed your filings and have the following comments. Please provide a written response to our comments. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. 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 disclosures in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2009

Financial Statements

Note 6 - Inventories, page 78

1. We note your disclosure indicating that in 2008, you recorded a \$20 provision (\$12 million after tax) to write down your chemical products inventory to market value. However in 2009, you reversed this lower of cost or market adjustment as the market value of these inventories recovered.

Tell us your reason for this reversal and how you arrived at the view of this being in conformance with U.S. GAAP, and not inconsistent with your accounting policy on page 70, which states that inventories are valued at the lower of cost or market. Additionally, please address the significance on your results of operations in the individual quarters that such reversals were recorded.

Note 15 – Noncontrolling Interests, page 91

Logistics Operations, page 92

2. We note your disclosure indicating that in February 2007, you recognized in income a previously “deferred gain” of \$151 million (\$90 million after tax), which arose when Sunoco Logistics Partners L.P. (the Partnership) issued common units to the public, increasing the investment value of your interest in the Partnership, reasoning that since your remaining subordinated units in the Partnership subsequently converted to common units, this incremental value then became residual interests and was thereby subject to recognition.

While the guidance in SAB Topic 5:H provides for an election to recognize gain for the value in excess of the parent’s carrying value upon a subsidiary’s sale of additional shares to the public, tell us why you believe this guidance would appropriately govern your recognition of gain upon conversion of subordinated units to common units, if this is your view.

Please be sure to explain whether you view such deferral and subsequent recognition as an additional elective aspect of the guidance, or if you believe it is coupled with the decision to recognize gains that may arise from the issuance of stock by a subsidiary. If you have an alternate view, based on other accounting literature, please explain the basis for your position.

3. We further note your disclosure indicating that in 2008, you recognized \$23 million (\$14 after tax) as a correction of error in the computation of the gain that

Mr. Brian P. MacDonald
Sunoco, Inc.
June 2, 2010
Page 3

you recorded in 2007, as raised in the comment above. Tell us how you concluded that the prior-period amount was not deemed to be material and therefore has not been restated, given that \$14 million after tax error correction represented 8% of your \$175 million net income for the first quarter of 2007.

Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosures in the filing to be certain that the filing includes all information required under the Securities 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 a company's disclosures, 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 disclosures in the filing;
- staff comments or changes to disclosures 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.

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 filing or in response to our comments on your filing.

You may contact Lily Dang at (202) 551-3867 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3686 with any other questions.

Mr. Brian P. MacDonald
Sunoco, Inc.
June 2, 2010
Page 4

Sincerely,

Karl Hiller
Branch Chief