



DIVISION OF
CORPORATION FINANCE

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

March 31, 2009

Mr. Terence P. DeLaney
Interim Chief Financial Officer
Sunoco, Inc.
1735 Market Street, Suite LL
Philadelphia, PA 19103-7583

Re: Sunoco, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed February 25, 2009
Schedule 14A Filed March 17, 2009
File No. 1-06841

Dear Mr. DeLaney:

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 disclosure 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, 2008

Business and Properties, page 1

Refining and Supply, page 2

1. We note your disclosure on page 5 concerning the proposed sale of your Tulsa refinery after the initiation of a \$400 million capital project at the facility and industry reports of substantial deficiencies in refinery capacity. In future filings, please revise such disclosure to clarify the reasons for such decision and the current status of sales efforts with respect to the Tulsa facility.

Schedule 14A Filed March 17, 2009

Certain Relationships and Related Transactions, page 15

2. In your discussion of related party transactions, we note your reference to an agreement with United States Steel, which also appears to be mentioned on page 41 of your Form 10-K for the year ended December 31, 2008. This agreement does not appear to be included in the exhibit list of the Form 10-K. Please explain to us why you have not filed this agreement as an exhibit.

Compensation Discussion and Analysis

Annual Incentive, page 35

3. We note your disclosure regarding three categories of goals: (1) operating income after tax (OIAT); (2) return on capital employed (ROCE); and (3) Health, Environmental and Safety ("HES") goals. You explain the OIAT and ROCE goals and then state that "The performance of these two measurements was modified (up or down) by certain HES performance goals." However, you do not disclose what the HES performance goals were. Furthermore, you disclose the actual performance with regard to OIAT and ROCE, and state that annual incentives were paid out "after applying the HES modifier," but you do not disclose the actual performance with regard to HES and how it modified the payout.

Please revise to disclose all qualitative and quantitative performance goals and actual performance relative to these goals. See Items 402(b)(2)(v)-(vi) and Instruction 2 to Item 402(b) of Regulation S-K. To the extent that you believe that disclosure regarding the goals would result in competitive harm such that they could be excluded properly under Instruction 4 to Item 402(b) of Regulation S-K, please provide on a supplemental basis a detailed explanation supporting your conclusion. Please also note that to the extent disclosure regarding the qualitative or quantitative performance goals would cause competitive harm, you are required to discuss how difficult it was or will be to achieve the goals. Please see Instruction 4 to Item 402(b) of Regulation S-K.

Long-Term Incentive Awards – Performance-Based Common Stock Units, page 37

4. You disclose the groups of peer companies that were used with regard to performance goals for the Common Stock Units (CSUs) awarded in December 2008 (page 33) and the CSUs awarded in December 2005 (page 39). However, at the top of page 38, you refer to "2007 performance-based CSU awards" as to which "the performance goals were equally weighted between TSR and EPS growth, both relative to the peer companies"; you do not explain what group of

peer companies was used for this purpose. Please enhance your disclosure to address this issue.

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 letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 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 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 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.

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.

Mr. Terence P. DeLaney
Sunoco, Inc.
March 31, 2009
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Please contact Norman Gholson at (202) 551-3237 or Michael Karney at (202) 551-3847 with any questions.

Sincerely,

H. Roger Schwall
Assistant Director

cc: M. Karney
N. Gholson