



DIVISION OF
CORPORATION FINANCE

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

October 30, 2009

Stanley W. Farmer
Vice President and Chief Financial Officer
SulphCo, Inc.
4333 W. Sam Houston Parkway North
Suite 190
Houston, Texas 77043

Re: SulphCo, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed March 6, 2009
Definitive Proxy Statement on Schedule 14A
Filed April 30, 2009
Response Letter filed October 9, 2009
File No. 001-32636

Dear Mr. Farmer:

We have reviewed your response letter 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.

Definitive Proxy Statement on Schedule 14A, filed April 30, 2009

General

1. Please confirm in writing that you will comply with the following comments relating to your definitive proxy in all future filings, and provide us with an example of the disclosure you intend to use in each case. After our review of your responses, we may raise additional comments.

Compensation Discussion and Analysis, page 25

General

2. We reissue our prior comment 13 in part. Notwithstanding your response that you have not yet established definitive metrics or formulae for the amount of compensation paid, please provide additional disclosure and analysis of how the individual performances and contributions of each named executive officer impact the compensation received. For example, for each named executive officer, discuss his “written goals and objectives” and “the extent to which [he] has met or failed to meet his written goals and objectives”, and how this factors into your compensation recommendations and decisions. See Item 402(b)(2)(vii) of Regulation S-K.
3. We also note in your response to our prior comment 13 that the “Company’s overall performance for the previous fiscal year” is a factor in determining compensation. Expand your disclosure to discuss how the company’s overall performance is evaluated and how this evaluation impacts each element of compensation. Qualitative goals generally need to be presented to conform to the requirements of Item 402(b)(2)(v). General statements regarding the level of difficulty, or ease, associated with achieving performance goals are not sufficient. If there are specific company performance targets that must be reached, please disclose or provide a supplemental analysis as to why it is appropriate to omit these targets pursuant to Instruction 4 to Item 402(b) of Regulation S-K. In discussing the likelihood of achieving these target levels or other factors, provide as much detail as necessary. Refer to Question 118.04 of the Regulation S-K Compliance and Disclosure Interpretations available at <http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm>.

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

Stanley W. Farmer
SulphCo, Inc.
October 30, 2009
Page 3

responsible for the accuracy and adequacy of the disclosures they have made.

You may contact Donald Delaney at (202) 551-3863, or Kimberly Calder, Assistant Chief Accountant, at (202) 551-3701 if you have questions regarding comments on the financial statements and related matters. Please contact Tracey L. McNeil at (202) 551-3392 or me with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director