



DIVISION OF
CORPORATION FINANCE

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

April 7, 2011

Via Facsimile

Michael S. Ciskowski, EVP and CFO
Valero Energy Corporation
One Valero Way
San Antonio, Texas 78249

**Re: Valero Energy Corporation
Form 10-K for Fiscal Year Ended December 31, 2010
Filed February 25, 2011
File No. 1-13175**

Dear Mr. Ciskowski:

We have reviewed your response letter dated March 23, 2011 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2010

Financial Statements, page 55

Note 7: Property, Plant and Equipment, page 79

1. We note in response to prior comment two that you utilize the composite method of depreciation, which entails fourteen separate crude oil processing facility composite groups. We also note in your response that your composite groups contain additions with significantly different purchase prices. It appears that your refineries consist of many significant components and have received substantial capital investment over the years. These factors could be an indication that your refineries contain a wide variety of assets,

with significantly different useful lives. To help us better understand the basis for your accounting, please:

- Explain how you concluded each of your crude oil processing facilities consists of sufficiently homogeneous assets for the purposes of applying composite depreciation rates. Your response should address the significant factors you considered in your conclusions including, but not limited to, purchase price, useful lives, nature of the asset, etc.;
- Identify for us any significant assets or groups of similar assets, currently recorded in your financial statements, where the actual useful life is significantly greater or less than its composite group useful life. Tell us the useful life for each identified asset or group of similar assets and the useful life of the composite group to which it belongs; and
- Tell us in detail how you concluded that the composite groups you have assigned result in depreciation expense for each year within an identifiable (i.e., specific year) composite group's useful life that does not significantly vary from depreciation expense computed based upon the actual useful life of individual assets.

Refer to ASC 360-10-35-2 through 35-4 for guidance.

2. Please explain to us why the appraisals referred to in your response provide an accurate "weighted-average depreciation rate." As part of your response to this comment, address any factors that could limit the reliability of the appraisals, including the age of the appraisals, the purpose and scope for which the appraisals were initially prepared, any significant changes in technology or regulation related to the types of assets that you currently capitalize, any significant expansions and upgrades of your refineries since the appraisals were prepared, and any significant additions to capital expenditures that could produce a different weighting of the useful lives when compared to the useful lives produced by the appraisals.
3. For each of the significant additions identified in your response, please make a determination of its actual useful life and provide us the underlying analysis. By analogy, address in detail the relevant factors of ASC 350-30-35-3. As part of your analysis, (i) highlight any areas of significant judgment, (ii) include a schedule of anticipated repairs and maintenance, capitalizable expenditures, and deferrable costs, for the lives of each asset, and (iii) identify any comparable assets that you have recorded prior to 2010 and explain to us how your experience with these assets factored into your current determination of useful lives. In addition, given the size of these significant additions, please tell us whether you considered separately depreciating any components of the individual additions.
4. Please tell us how you considered including a discussion of the significant judgments made in assigning your composite groups and the composite depreciation rates applied as contemplated in SEC Release 33-8350.

5. We note disclosure on your website that you invested approximately \$525 million in the flue gas scrubber located on your Benicia Refinery. Please clarify for us the difference between this amount and the \$712 million provided in your response.
6. Please tell us whether any items capitalized as capital expenditures are similarly capitalized as deferred turnaround or catalyst costs. If so, provide us details of these assets and clarify the basis for capitalizing them both as an asset and deferred cost.

Closing Comments

You may contact Michael Fay at (202) 551-3812 or me at (202) 551-3299 if you have questions regarding the comments.

Sincerely,

/s/ Mark C. Shannon

Mark C. Shannon
Branch Chief