



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

DIVISION OF  
CORPORATION FINANCE

February 22, 2011

Gary R. Heminger  
President  
Marathon Petroleum Corporation  
539 South Main Street  
Findlay, Ohio 45840-3229

**Re: Marathon Petroleum Corporation  
Form 10-12B  
Filed January 25, 2011  
File No. 1-35054**

Dear Mr. Heminger:

We have reviewed your filing 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.

Registration Statement on Form 10-12B

1. Please note the financial statement updating requirements per Article 3-12 of Regulation S-X.

Information Statement, Exhibit 99.1

General

2. We note that you have numerous blank spaces in the document indicating information and material that will be provided later. We also note that you have not yet filed any of the exhibits to the Form 10 other than the information statement. Please be advised that we will need sufficient time to review these materials and information once filed and may have further comments.
3. We note that you have applied to list your common stock on the NYSE. Please provide us with, and disclose as applicable, relevant updates regarding the progress of your application.

Summary, page 6

Our Competitive Strengths, page 7

4. Please balance your disclosure here and in the Business section beginning at page 84 by providing a brief overview of the most material risks you face.

Summary of the Spin-Off, page 9

Cash payments to Marathon Oil prior to the spin-off, page 11

5. Please quantify here the aggregate amount of cash payments you intend to make to Marathon Oil in connection with the spin-off. In addition, please clarify the phrase "except for a minimum of \$750 million," as it is unclear whether you are referring to remaining debt owed to Marathon Oil, your remaining cash and cash equivalent balance, or both.

Risk Factors, page 16

We may have received better terms from unaffiliated third parties . . . , page 21

6. Please enhance your disclosure in this risk factor to further clarify the reasons why the terms in your agreements with Marathon Oil governing the spin-off are less favorable to you than those that you would have received from unaffiliated third parties.

A large number of our share are or will be eligible for future sale . . . , page 30

7. Please disclose in a separate risk factor with an appropriate caption the risks related to the fact that index funds will be forced to sell your shares they currently hold to the extent that you are no longer a component of the S&P 500 or DJIA.

Cautionary Statement Concerning Forward-Looking Statements, page 32

8. Section 27A of the Securities Act of 1933 and Section 21E(a) of the Exchange Act expressly state that the safe harbor for forward-looking statements only applies to an issuer that, at the time that the statement is made, is subject to the reporting requirements of section 13(a) or section 15(d). As it does not appear that Marathon Petroleum Company meets this condition, please revise accordingly.

The Spin-Off, page 34

Facilitating growth of Marathon Oil's and MPC's Businesses, page 35

9. We note that the spin-off may lead to an increase in the overall cost of debt funding and a decrease in overall debt capacity. Please provide related risk factor disclosure.

Material U.S. Federal Income Tax Consequences of the Spin-Off, page 39

10. Please revise to remove the suggestion that the discussion in this section is merely a summary of the material tax consequences.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 56

Results of Operations, page 60

General

11. Please revise your disclosure for each period presented to provide additional detail separately quantifying the effect of each causal factor that you cite for material changes in your financial statement amounts. For example, your analysis of refining and marketing revenues for the interim period ended September 30, 2010 makes reference to price level increases and changes in volume, but does not quantify the impact of each of these items on your financial statements. Refer to Section III.D of SEC Release 33-6835 for further guidance.

Capital Resources, page 71

12. In various sections of your registration statement, such as at pages 14, 50, 54, and 71, you disclose that you will incur up to \$3 billion of new, long-term debt “in connection with the spin-off.” Please revise to include a more complete discussion regarding the sources and uses of such debt.
13. We note the commitment letter regarding the credit facility that you plan to enter into following the spin-off. Please tell us whether you intend to file a form of the agreement, the commitment letter, or some other document to satisfy the filing requirement for material contracts pursuant to Item 601(b)(10). If not, please explain why this is not required.

Capital and Investment, page 74

14. We note your disclosure that your approved a capital and investment budget for 2010 represented over a 50% reduction from your 2009 spending, and that the primary focus of the 2010 budget was continuation of the Detroit refinery heavy oil upgrading and expansion project and increased investments in certain areas. Please briefly discuss the nature of the 2009 and the areas that saw reduction in investments in 2010. When available, discuss the focus of your capital and investment budget and plans for 2011.

Legal Proceedings, page 98

Environmental Proceedings, page 98

15. We note that you have excluded retail marketing outlets from your discussion at page 99 of the 94 sites where remediation is being sought, as well as your disclosure at page 97 regarding issues with underground storage tanks at certain of your retail outlets. Please revise your disclosure to include the information required by Item 103 of Regulation S-K with respect to any proceedings pending or known to be contemplated by governmental authorities with respect to these retail marketing outlets. In light of the existence of any such proceedings, please explain why you believe it is appropriate to exclude from your discussion here the estimated amounts required to remediate such environmental issues, otherwise revise.

Relationship with Marathon Oil After the Spin-Off, page 102

16. Please reconcile your statement regarding your belief that the purchases of crude oil from Marathon Oil were made at prices “equivalent to arm’s-length market prices” with your statements at pages 73, F-7, and F-36 that your transactions with related parties “other than Marathon Oil” were conducted on terms comparable to those with unrelated parties. In addition, in an appropriate place provide further clarity regarding the pricing of your purchases of crude oil from Marathon.

Tax Sharing Agreement, page 104

17. We note your disclosure at page 105 regarding covenants in the Tax Sharing Agreement that will restrict your ability to, inter alia, undertake certain sales or issuances of stock, to solicit or participate in tender offers for your stock, and to take various other corporate actions with respect to your securities and business combinations. With a view towards disclosure, please explain to us in further detail the nature of these limitations. While we note your related risk factor disclosure at page 19, it appears that there may be additional, specific risks related to compliance with these covenants, which may require independent risk factor disclosure.

Management, page 110

18. For each director, briefly discuss the specific experience, qualifications, attributes, or skills that led to the conclusion that the person should serve as a director for the registrant at this time. See Item 401(e) of Regulation S-K.

Financial Statements, page F-1

Note 20 – Commitments & Contingencies, page F-63

19. We note you have provided disclosure regarding pending legal cases. However, it does not appear that you have provided disclosure regarding management’s assessment of the probability that a liability has been incurred and the related possible loss or range of loss. Please revise your disclosure accordingly. Refer to FASB ASC 450-20-25-2 and 450-20-50-3 through 50-4.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

Gary R. Heminger  
Marathon Petroleum Corporation  
February 22, 2011  
Page 6

In responding to our comments, please provide a written 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.

You may contact Donald Delaney at (202) 551-3863 or Ethan Horowitz, Branch Chief at (202) 551-3311 if you have questions regarding comments on the financial statements and related matters. Please contact John Lucas, Staff Attorney, at (202) 551-5798 or, in his absence, me at (202) 551-3611 with any other questions.

Sincerely,

Anne Nguyen Parker  
Branch Chief

cc: Ted Paris, Esq.  
Facsimile: (713) 229-7738