Michael J. Knesek Senior Vice President, Controller and Principal Accounting Officer Enterprise Products GP, LLC 1100 Louisiana Street 10th Floor Houston, Texas 77002

Re: Enterprise Products Partners L.P.
Form 10-K for the Fiscal Year Ended December 31, 2008
Filed March 2, 2009
File No. 001-14323

Dear Mr. Knesek:

We have reviewed your filing and have the following comments. You should comply with these comments in all future filings, as applicable. Please confirm in writing that you will do so, and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. 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 filings. 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.

Annual Report on Form 10-K for the Fiscal Year Ended December 31, 2008

Items 1 and 2. Business and Properties, page 2

Financial Information by Business Segment, page 3

1. We reviewed Note 16 of the Notes to Consolidated Financial Statements included under Item 8 of your Form 10-K. Please disclose total assets for each segment for each of the last three fiscal years as opposed to the last two fiscal years. Refer to Item 101(b) of Regulation S-K.

Segment Discussion, page 3

2. Under this heading you disclose that in 2008 your largest customer was LyondellBasell Industries and its affiliates ("LBI"), which accounted for nearly 10% of your consolidated revenues. Please disclose whether you expect LBI's bankruptcy filing to have a material adverse effect on your revenues, results of operations or financial condition.

Item 1A. Risk Factors, page 32

3. In second paragraph under this heading you state that "[t]he following section lists some, but not all, of the key risk factors that may have a direct impact on [your] business, financial position, results of operations and cash flows." All material risks should be described. If risks are not deemed material, you should not reference them. Please revise or advise.

Management's Discussion and Analysis of Financial Condition ..., page 55

Liquidity and Capital Resources, page 72

Capital Spending, page 77

4. Under this heading you disclose that "an integral part of [your] business strategy involves expansion through business combinations, growth capital projects and investments in joint ventures." In your Form 8-K filed on April 21, 2009, you announced that, effective April 16, 2009, your affiliate, Enterprise Offshore Port System, LLC, has elected to exit from one such joint venture, the Texas Offshore Port System partnership ("TOPS"), and forfeit its investment and its one-third ownership interest in the partnership. While we note your disclosure in the Form 8-K regarding the expected \$34 million non-cash charge against earnings you expect to record for the second quarter of 2009, with a view toward disclosure,

please also tell us whether you expect the dissociation to have a material adverse effect on your business strategy going forward.

In addition, under the heading "Recent Developments— Texas Offshore Port System" on page 60, you disclose that you and TEPPCO have each guaranteed up to approximately \$700.0 million, which includes a contingency amount for potential cost overruns, of the capital contribution obligations of your respective subsidiary partners in the TOPS joint venture. With a view toward disclosure, please also tell us whether you expect to incur any liabilities in the future pursuant to this guarantee. We may have further comment.

Item 13. Certain Relationships and Related Transactions, and Director ..., page 121

Certain Relationships and Related Transactions, page 121

Relationship with EPCO and affiliates, page 121

EPCO ASA, page 122

5. In the lead-in paragraph to your summary compensation table on page 107, you disclose that "[c]ompensation paid or awarded by [you] with respect to [your] Named Executive Officers reflects only that portion of compensation paid by EPCO allocated to [you] pursuant to the ASA, including an allocation of a portion of the cost of EPCO's equity-based long-term incentive plans." In your description of the administrative services agreement under this heading, please disclose how compensation paid by EPCO, including the cost of EPCO's equity-based long-term incentive plans, is allocated under the administrative services agreement to you and your affiliates.

We also note that Messrs. Fowler and Bachmann are named executive officers of Enterprise Products Partners L.P. and Duncan Energy Partners L.P as well as your parent, Enterprise GP Holdings L.P. Please disclose how much time each of these named executive officers devotes to these businesses. Lastly, please also state, if true, that the portion of compensation paid by EPCO allocated to you pursuant to this agreement does not include any portion of the compensation allocated by EPCO to your consolidated subsidiaries.

Item 15. Exhibits and Financial Statement Schedules, page 135

6. Under this heading you disclose that the "agreements included as exhibits are included only to provide information to investors regarding their terms" and that the "agreements ... may contain representations, warranties and other provisions that were made, among other things, to provide the parties thereto with specified

rights and obligations and to allocate risk among them, and such agreements should not be relied upon as constituting or providing any factual disclosures about [you], any other persons, any state of affairs or other matters." Please revise to remove any potential implication that the referenced agreements do not constitute public disclosure under the federal securities laws.

* * * * *

Please respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of your disclosure to expedite our review. 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 responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in this 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.

Please contact Catherine Brown, Staff Attorney, at (202) 551-3513 or me at (202) 551-3720 with any questions you may have.

Sincerely,

H. Christopher Owings Assistant Director