

Mail Stop 3561

April 23, 2010

Jason A. Dubchak  
General Counsel  
Niska Gas Storage Partners LLC  
2780 West Liberty Road  
Gridley, California 95948

**Re: Niska Gas Storage Partners LLC  
Amendment Nos. 2 and 3 to Registration Statement on Form S-1  
Filed April 15, 2010 and April 21, 2010  
File No. 333-165007**

Dear Mr. Dubchak:

We have reviewed your response letter and amendments to your Form S-1 filed April 15, 2010 and April 21, 2010. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments.

Prospectus Summary, page 1

1. We note your revisions to your prospectus summary in response to comment three of our April 12, 2010 letter. Please further revise your summary to condense the table on page 3. This level of detail is more appropriately presented in your business section on page 126 and is unnecessary in the summary.

Capitalization, page 43

2. Please revise your cash and cash equivalents to exclude margin deposits of \$7.7 million as reflected on page F-3.
3. Please revise your as adjusted total capitalization to exclude cash and cash equivalents.

Dilution, page 45

4. Please provide us your calculations of net tangible book value before and after the offering.
5. Refer to footnote (1) to your dilution table. It appears you have included the 17,500,000 common units issued to the new investors in the total number of 33,804,745 common units to be issued to Holdco. Please explain or revise to reflect 16,304,745 common units issued consistent with pro forma adjustment 2(b)(i) on page F-7. See Item 506 of Regulation S-K for guidance.
6. Please revise footnote (2) on page 46 to show the total assets contributed by Holdco and its affiliates adjusted for all distributions prior to the offering.

Unaudited Pro Forma Cash Available for Distribution, page 51

7. We note your revised disclosure in response to comment five of our letter dated April 12, 2010. It is not appropriate to assume interest income from the net offering proceeds. Please revise.
8. We note your response to comment six of our letter dated April 12, 2010. Your revised disclosure in footnote (3) on page 52 states, “our expansion capital expenditures are assumed to have been funded by cash contributions from our sponsor.” In this regard, please revise your pro forma cash available for distribution table and related disclosure to reflect only amounts actually and specifically provided for funding of expansion capital expenditures during the periods presented.

Estimated Cash Available for Distribution, page 54

9. We note your response to comment seven of our letter dated April 12, 2010. We do not believe it is generally appropriate to add back cash on hand to fund expansion capital expenditures. In this regard, you should be able to demonstrate your ability to pay distributions based on your projected cash flows from operations as adjusted for significant expected cash inflows and outflows of expected financing and investing activities during the future 12 months. Please revise to exclude cash on hand as a source of funding. Alternatively, you may reflect debt or equity financing to fund capital expansion along with the incremental borrowing costs and revised disclosure of the impact to your debt covenants as appropriate. Further, if future minimum distributions for the fiscal year ending March 31, 2011 will be funded by a return of capital from the common unit offering; please revise your disclosure accordingly.
10. Explain to us why you are assuming you will fund your inventory purchases of natural gas with cash on hand as opposed to utilizing your credit facility. Tell us

historically how you have funded your inventory purchases. Please expand your disclosure to explain why it is reasonable for you to assume you will have sufficient cash on hand.

11. We note your response to comment eight of our letter dated April 12, 2010. We read your statement, “[t]he credit agreement and indenture provide that operating surplus will be calculated from the closing date of this offering, such that we will not be permitted to include any operating surplus that would have been generated prior to the closing of this offering.” Please revise to clarify and disclose the amounts that would be available immediately after the close of the offering.

Niska Gas Storage Partners LLC Unaudited Pro Forma Combined Financial Statements

12. We note your new disclosure on page five that a capital contribution of \$18 million was made on January 25, 2010 to fund capital expenditures and you expect to pay cash distributions of \$50 million prior to the offering. Please revise to give pro forma effect to the contribution and distribution contemplated or explain to us why you are not required to do so. Refer to SAB Topic 1.B.3 and Rule 11-01 of Regulation S-X.

Notes to Unaudited Pro Forma Combined Financial Statements, page F-7

2.Pro Forma Balance Sheet Adjustments, page F-7

13. Please expand your disclosure to provide a detailed explanation of the components of the adjustments to enable a reader to cross reference the amounts disclosed in your footnote to the adjustments reflected on the face of the pro forma statement. For example, please explain the adjustment to cash of (\$11,575).
14. We note your response to comment 12 of our letter dated April 12, 2010. Please tell us where you have reflected the \$13.8 million for the cost of terminating the interest rate swaps in connection with the termination of the existing credit facility. Please clarify the discrepancy between the subsequent event disclosure and the disclosure in Note 12 on page F-36.

4. Pro Forma Net Earnings per Unit, page F-9

15. Please advise why the number of common units assumed to be outstanding for the net earnings per unit calculation as disclosed on page F-10 is 16,304,745 as opposed to 33,804,745, or revise.

Jason A. Dubchak  
Niska Gas Storage Partners LLC  
April 23, 2010  
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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment 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 amendment and responses to our comments.

Please contact, Robert Babula, Staff Accountant, at (202) 551-3339, or in his absence Donna Di Silvio, Senior Accountant, at (202) 551-3202 if you have questions regarding comments on the financial statements or related matters. You may contact Chris Chase, Staff Attorney, at (202) 551-3485 or me at (202) 551-3725 with any other questions.

Sincerely,

H. Christopher Owings  
Assistant Director

cc: John Johnston, Esq.  
Vinson & Elkins L.L.P.  
Via Fax (917) 849-5307