



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

VIA FACSIMILE AND U.S. MAIL

May 4, 2007

Merrick Kerr
Chief Financial Officer
Rentech, Inc.
10877 Wilshire Boulevard, Suite 710
Los Angeles, California 90024

**RE: Rentech, Inc.
Form 10-K for Fiscal Year Ended September 30, 2006
Form 10-Q for the Fiscal Quarter Ended December 31, 2006
File No. 1-15795**

Dear Mr. Kerr:

We have limited our review of the above referenced reports to the matters listed below. If you disagree with a comment, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. 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 or may not 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 filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-K FOR THE YEAR ENDED SEPTEMBER 30, 2006

General

1. Where a comment below requests additional disclosures or other revisions to be made, please show us in your response what the revisions will look like. These revisions should be included in your future filings, including your interim filings where applicable.

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Financial Statements

Note 2 – Summary of Certain Significant Accounting Policies, page F-16

Marketable Securities, page F-16

2. Please provide the disclosure required by paragraphs 19 and 20 of SFAS 115 by major security type as of each date for which a statement of financial position is presented. For your investments in debt securities, please disclose the information about contractual maturities of those securities as of the date of the most recent statement of financial position presented.

Note 10 – Convertible Debt, page F-34

3. On page F-35, you indicate that as a result of the default on your loan, you issued additional warrants to the investor for the purchase of 219,298 additional common shares and have allowed for the conversion of the unpaid balance of the notes into common stock. It appears that your debt has been modified to a convertible debt with a fixed percentage conversion. Please tell us how you accounted for this modification to a convertible debt. It appears that you may have a beneficial conversion feature as a result of the modification of your debt. Please also tell us what consideration you gave to EITF 98-5 and EITF 00-27. Refer also to Case 5 of EITF 98-5. Please also revise your disclosure to better explain your accounting for these debentures.
4. On page F-37, you indicate that your initial conversion rate of 249.2522 shares of common stock per \$1,000 principal amount of Notes is subject to adjustments as provided in the Indenture. Given these adjustments, please tell us whether your Notes are conventional convertible debt instruments and explain how you reached this conclusion. Please tell us what consideration you gave to EITF 05-02. It also appears that your adjustments may include “reset features” or other embedded derivatives. Please tell us how you accounted for these adjustments including but not limited to the accounting for any reset features included in your Notes, as applicable. Refer also to EITF 00-19 and SFAS 133.

Note 13 – Commitments and Contingencies, page F-39

Contractual Liability, page F-42

5. On page F-43, you indicate that you entered into fixed quantity natural gas contracts, which were short-term in duration. Please disclose the following:
 - the dollar amount of the positive or negative impact on earnings as a result of these contracts for each period presented;
 - the amount of BTUs that were committed for as of each balance sheet date and the fixed price that you were required to purchase at;

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- the market price of natural gas as of each balance sheet date and the dollar amount of the positive or negative impact this would have on the next reporting period if the market rate does not change from the balance sheet date's market rate; and
- more detailed information regarding the remaining duration of your gas contracts as of each balance sheet date.

FORM 10-Q FOR THE QUARTER ENDED DECEMBER 31, 2006

Consolidated Statement of Cash Flows, page 5

6. On page 6, you disclose contract receivables for advance sales within non-cash investing and financing activities. Please provide the following:
 - disclose what contract receivables for advance sales represent;
 - disclose your accounting policy for contract receivables for advance sales; and
 - disclose how any remaining adjustments related to these receivables will be accounted for.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 25

Three Months Ended December 31, 2006 Compared to December 31, 2005, page 29

7. On page 29, you indicate that accounts receivable balances increased due to this sales increase as well as a strong spring prepay program. Please provide the following:
 - disclose and explain the meaning of spring prepay program as used in your filing;
 - disclose your accounting policy and explain how your spring prepay program works; and
 - disclose the related amounts as of each balance sheet date.

* * * *

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your response on EDGAR as a correspondence file. 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

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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 their filings;
- 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.

You may contact Ernest Greene, Staff Accountant, at (202) 551-3733, or the undersigned at (202) 551-3769, if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker
Accounting Branch Chief