



DIVISION OF  
CORPORATION FINANCE

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

April 8, 2011

D. Hunt Ramsbottom  
Chief Executive Officer and President  
Rentech, Inc.  
10877 Wilshire Boulevard, Suite 600  
Los Angeles, CA 90024

**Re: Rentech, Inc.**  
**Form 10-K for the Fiscal Year Ended September 30, 2010**  
**Filed December 14, 2010**  
**Form 10-K/A for the Fiscal Year Ended September 30, 2010**  
**Filed January 28, 2011**  
**File No. 001-15795**

Dear Mr. Ramsbottom:

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.

Form 10-K for the Fiscal Year Ended September 30, 2010

Item 1. Business, page 4

Research and Development Program, page 6

1. In future filings, please revise to include here the estimated amount spent during each of the last three fiscal years on company-sponsored research and development activities determined in accordance with generally accepted accounting principles. Refer to Item 101(c)(1)(xi) of Regulation S-K.

Item 1A. Risk Factors, page 17

2. We note your disclosure in the first paragraph of this section of “[s]et forth below are certain risk factors related to the Company’s business. The risk factors described below may not include all of the risk factors that could affect future results.” All material risks should be discussed in this section. In future filings, please revise this paragraph to clarify that you have discussed all known material risks.

Form 10-K/A for the Fiscal Year Ended September 30, 2010

Peer Group Generation and Comparison Results, page 9

3. It appears that you benchmark against the companies listed on page 10 as well as the companies from the Radford 2010 Global Technology Survey to determine compensation for your executive officers. If true, please revise your executive compensation disclosure in future filings to clarify that two benchmarking groups exist and to identify the companies in the Radford 2010 Global Technology Survey. Alternatively, please confirm and clarify in future filings that you benchmark only against the companies named on page 10.

Summary Compensation Table, page 17

4. In future filings, for awards subject to performance conditions, include a footnote to disclose the value of the award at the grant date assuming that the highest level of performance conditions will be achieved if an amount less than the maximum was included in the table. Refer to Item 402(c)(2)(v) of Regulation S-K and Instruction 3 thereto.

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.

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.

D. Hunt Ramsbottom  
Rentech, Inc.  
April 8, 2011  
Page 3

Please contact Donald E. Field at (202) 551-3680 or me at (202) 551-3642 with any questions.

Sincerely,

Lauren Nguyen  
Attorney-Advisor