



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

Mail Stop 3720

August 20, 2009

Via U.S. Mail and facsimile to (415) 659-0007

Mr. Thomas A. Scott  
Chief Financial Officer  
FiberTower Corporation  
185 Berry Street  
Suite 4800  
San Francisco, CA 94107

**Re:   FiberTower Corporation  
      Form 10-K for the year ended December 31, 2008  
      Filed March 13, 2009  
      File No. 000-21091**

Dear Mr. Scott:

We have reviewed your supplemental response letter dated August 10, 2009 as well as your filing and have the following comments. As noted in our comment letter dated July 28, 2009, we have limited our review to your financial statements and related disclosures and do not intend to expand our review to other portions of your documents.

Form 10-K for the year ended December 31, 2008

Accounting comments:

We note your response to comment two from our letter dated July 28, 2009. Please provide a draft of the proposed disclosures you will include in your next Form 10-Q to address the estimates and assumptions involved in estimating the fair value of your FCC licenses. The revised disclosures should also include the following:

- Describe the Greenfield methodology and quantify the significant assumptions used, as discussed in your response;
- Disclose the changes in the assumptions used in your 2008 projections as discussed on pages 9 and 10 of your response; and
- Disclose the sensitivity analysis presented on page 11 of your response.

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Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested supplemental information. Please file your response letter on EDGAR.

You may contact Gopal R. Dharia, Senior Staff Accountant, at (202) 551-3353 or Terry French, Accountant Branch Chief, at (202) 551-3828 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel  
Assistant Director