



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

Mail Stop 3030

February 26, 2010

Mr. Roger G. Little  
Chief Executive Officer  
Spire Corporation  
One Patriots Park  
Bedford, MA 01730-2396

**Re: Spire Corporation  
Form 10-K for the fiscal year ended December 31, 2008  
Filed March 31, 2009  
File No. 0-12742**

Dear Mr. Little:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

Sincerely,

Daniel H. Morris  
Special Counsel