

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
February 26, 2010**

**ORDER GRANTING CONFIDENTIAL TREATMENT  
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

**Spire Corporation**

**File No. 000-12742 -- CF#24448**

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Spire Corporation submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-K/A filed on November 24, 2009.

Based on representations by Spire Corporation that this information qualifies as confidential commercial or financial information under the Freedom of Information Act, 5 U.S.C. 552(b)(4), the Division of Corporation Finance has determined not to publicly disclose it. Accordingly, excluded information from the following exhibits will not be released to the public for the time periods specified:

|                |                           |
|----------------|---------------------------|
| Exhibit 10(ap) | through December 31, 2013 |
| Exhibit 10(aq) | through December 31, 2013 |
| Exhibit 10(ar) | through December 31, 2013 |
| Exhibit 10(as) | through December 31, 2013 |

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Daniel Morris  
Special Counsel