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

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