

SPIRE CORP  
Form SC 13G/A  
April 12, 2010

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G/A  
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13D-1(b) AND  
AMENDMENTS FILED THERETO FILED PURSUANT TO RULE 13D-2(b)

Under the Securities Exchange Act of 1934  
(Amendment No. 2)\*

Spire Corporation  
(Name of Issuer)

Common Stock  
(Title of Classes of Securities)

848565107  
(CUSIP Numbers)

March 31, 2010  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- : X Rule 13d-1(b)
- : Rule 13d-1(c)
- : Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No.:848565107

1 NAME OF REPORTING PERSON  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSON (ENTITIES ONLY)

Invesco Ltd.  
IRS # 980557567

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*  
(a)  
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Invesco Ltd. – Bermuda

|   |                          |
|---|--------------------------|
| 5 | SOLE VOTING POWER        |
| 6 | SHARED VOTING POWER      |
| 7 | SOLE DISPOSITIVE POWER   |
| 8 | SHARED DISPOSITIVE POWER |

NUMBER OF  
SHARES  
BENEFICIALLY  
OWNED BY  
EACH  
REPORTING  
PERSON  
WITH

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

0

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\*

N/A

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0%

12 TYPE OF REPORTING PERSON\*

See Item 3 of this statement

Item 1(a). Name of Issuer:

Spire Corporation

(b). Address of Issuer's Principal Executive Offices:

One Patriots Park; Bedford, MA 01730-2396; United States

Item 2(a). Name of Person Filing:

Invesco Ltd.

(b). Address of Principal Business Office or, if none, residence of filing person:

1555 Peachtree Street NE; Atlanta, GA 30309; United States

(c). Citizenship of filing person:

Bermuda

(d). Title of Classes of Securities:

Common Stock .01 par value per share

(e). CUSIP Numbers:

848565107

Item 3. If this Statement is Filed Pursuant to ss240.13d-1(b) or 240.13d-2(b) or (c), Check Whether the Person Filing is a:

(e)  An investment adviser in accordance with section 240.13d-1(b)(1)(ii)(E)

(g)  A parent holding company or control person in accordance with section 240.13d-1(b)(1)(ii)(G)

Item 4. Ownership:

Please see responses to Items 5-8 on the cover of this statement, which are incorporated herein by reference.

Item 5. Ownership of Five Percent or Less of a Class:

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following

Item 6. Ownership of More than Five Percent on Behalf of Another Person:

N/A



Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company:

The following subsidiaries of Invesco Ltd. are investment advisers which hold shares of the security being reported:

N/A

Item 8. Identification and Classification of Members of the Group:

N/A

Item 9. Notice of Dissolution of a Group:

N/A

Item 10. Certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Signature:

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

04/09/2010

Date

Invesco Ltd.

By: /s/ Lisa Brinkley

Lisa Brinkley

Global Assurance Officer