SPIRE CORP Form 11-K June 29, 2006

UNITED STATES

	SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549	
	FORM 11-K	
X	Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934.	ange
	For the fiscal year ended December 31, 2005; or	
1_1	Transition Report Pursuant to 15(d) of the Securities Exchange of 1934.	Act
	For the transition period from to	
	Commission file number: 0-12742	
	SPIRE CORPORATION 401(K) PROFIT SHARING PLAN (Full title of the plan)	
	SPIRE CORPORATION (Name of issuer of the securities held pursuant to the plan)	
	ONE PATRIOTS PARK BEDFORD, MASSACHUSETTS 01730-2396 (Address of principal executive offices)	
		======
	SPIRE CORPORATION 401(K) PROFIT SHARING PLAN FOR THE YEAR ENDED DECEMBER 31, 2005	
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Plan Administrator Spire Corporation 401(k) Profit Sharing Plan Bedford, Massachusetts

We have audited the accompanying statements of net assets available for benefits of Spire Corporation 401(k) Profit Sharing Plan (the Plan) as of December 31, 2005 and 2004 and the related statement of changes in net assets available for benefits for the year ended December 31, 2005. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2005 and 2004, and the changes in net assets available for benefits for the year ended December 31, 2005, in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of assets

(held at end of year) and reportable transactions as of and for the year ended December 31, 2005 are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting under the Employee Retirement Income Security Act of 1974. The supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ CARLIN, CHARRON & ROSEN, LLP

Westborough, Massachusetts June 16, 2006

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS DECEMBER 31, 2005 AND 2004

	2005	2004
ASSETS		
<pre>Investments: At fair value:</pre>		
Common stock - Spire Corporation Mutual funds Participant loans	·	\$1,241,277 4,449,785 89,153
At contract value: Hartford Fixed Income Fund	203,071	264,124
	5,503,416	6,044,339
Participant contributions receivable	9,270	17,169
Total assets	\$5,512,686 ======	\$6,061,508 ======
Net assets available for benefits	\$5,512,686 ======	\$6,061,508 ======

See notes to financial statements.

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS FOR THE YEAR ENDED DECEMBER 31, 2005

Additions to net assets attributed to: Investment income: Interest and dividends Interest on loans Net appreciation in fair value of investments	\$ 184,504 4,351 1,097,902
	1,286,757
Participant contributions	337 , 986
Total additions	1,624,743
Deductions from net assets attributed to: Benefits paid to participants Corrective distributions Administrative charges	2,166,078 6,683 804
Total deductions	2,173,565
Net decrease (548,822) Net assets available for benefits: Beginning of year	6,061,508
End of year	\$5,512,686

See notes to financial statements.

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2005

1. Plan Description

The following description of the Spire Corporation 401(k) Profit Sharing Plan (the Plan) provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

GENERAL

The Plan is a defined contribution plan covering all employees of Spire Corporation (the Company) who have completed 90 days of service and are age twenty-one or older. The Plan is subject to the provisions of the Employee Retirement Income Security Act (ERISA).

CONTRIBUTIONS

Each year, participants may contribute up to the maximum amount of pre-tax annual compensation as determined by the Internal Revenue Code. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans. Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan currently offers the Company's

common stock, sixteen mutual funds, and an insurance contract as investment options for participants. The Company may contribute, at the determination of the board of directors, a discretionary matching contribution on the first 15 percent of base compensation that a participant contributes to the Plan. The Company's matching contribution is invested directly in Company common stock. The Company may also make a profit sharing contribution. In 2005, the Company did not make a matching or profit sharing contribution. Contributions are subject to certain limitations.

PARTICIPANT ACCOUNTS

Each participant's account is credited with the participant's contributions and the Company's matching contribution (if any) and an allocation of (a) the Company's profit sharing contribution (if any), and (b) plan earnings. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

VESTING

Participants are immediately vested in voluntary contributions plus actual earnings thereon. Vesting in the Company matching contribution is based on years of continuous service. A participant is 100 percent vested after six years of credited service.

FORFEITED ACCOUNTS

At December 31, 2005 and 2004, forfeited nonvested accounts totaled \$27,002 and \$21,745, respectively. These amounts will be used to reduce future employer contributions.

PARTICIPANT LOANS

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to \$50,000 or 50 percent of their account balance, whichever is less. The loans are secured by the balance in the participant's account and bear interest at a rate commensurate with local prevailing rates as determined by the plan administrator. Interest rates range from 5% to 10%. Principal and interest are repaid through payroll deductions.

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

NOTES TO FINANCIAL STATEMENTS - CONTINUED FOR THE YEAR ENDED DECEMBER 31, 2005

PAYMENTS OF BENEFITS

On termination of service for any reason, a participant may elect to receive a lump-sum amount equal to the value of the participant's vested interest in his or her account or annual installments over a period of not more than a participant's and his or her beneficiary's assumed life expectancy determined at the time of distribution. Withdrawals may be made under certain other circumstances in accordance with the Plan document.

ADMINISTRATIVE COSTS

Except for loan fees, which are charged against the borrowers' accounts, administrative costs of the Plan are paid by the Company.

2. Summary of Significant Accounting Policies

USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

INVESTMENT VALUATION AND INCOME RECOGNITION

The Plan's investments are stated at fair value except for its insurance contract which is stated at contract value, which approximates fair value, as reported to the plan administrator by Hartford Life Insurance Company. Quoted market prices are used to value investments. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

PAYMENT OF BENEFITS Benefits are recorded when paid.

Investments

Investments that represent five percent or more of the Plan's net assets are as follows:

	December 31,		
	2005	2004	
Mutual funds			
Oppenheimer Quest Opportunity Value	\$ 777 , 474	\$1,255,486	
Franklin Flexible Capital Growth	1,083,273	1,204,944	
American Funds Washington Mutual Investors		386,337	
American Funds Europacific Growth	408,940	383,644	
Common stock			
Spire Corporation	1,489,404	1,241,277	

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

NOTES TO FINANCIAL STATEMENTS - CONTINUED FOR THE YEAR ENDED DECEMBER 31, 2005

During 2005, the Plan's investments (including investments bought, sold, and held during the year) appreciated in value as follows:

Mutual	iunds	\$	41,1	6/
Common	stock	1,	058,7	90
		\$1,	099,9	57

4. Nonparticipant-Directed Investments

Information about the net assets and the significant components of the changes in net assets relating to the nonparticipant-directed investments is as follows:

December 31,

	2005	2004
Net assets: Common stock - Spire Corporation	\$1,481,103	\$1,235,266
	=======	=======
Changes in net assets during 2005:		
Benefits paid to participants	\$ (791,704)	
Net appreciation	1,037,541	
	\$ 245 , 837	

5. Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, participants would become 100 percent vested in their employer contributions.

6. Income Tax Status

The Internal Revenue Service has determined and informed the Company by a letter dated May 23, 1995, that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (IRC). Although the Plan has been amended since receiving the determination letter, the plan administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC.

7. Excess Contributions

Benefit contributions for the plan year ended December 31, 2005 include payments of \$6,683 made to certain participants to return to them excess deferral contributions as required to satisfy the relevant nondiscrimination provisions of the Plan for the prior year.

Contributions received for the year ended December 31, 2005 include excess deferral contributions in the amount of \$29,685. These amounts must be refunded as required to satisfy the relevant nondiscrimination provisions for the 2005 plan year. These excess deferral contributions will be shown as distributions in the year in which the refunds are actually made.

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

NOTES TO FINANCIAL STATEMENTS - CONTINUED FOR THE YEAR ENDED DECEMBER 31, 2005

8. Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the

amounts reported in the statement of net assets available for benefits.

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

SCHEDULE H, ITEM 4I - FORM 5500 SCHEDULE OF ASSETS (HELD AT END OF YEAR) DECEMBER 31, 2005

E.I.N. 04-2457335 Plan Number 002

(a)	(b)	(c)	(d)
		Description of Investment	
	Identity of Issue,	Including Maturity Date,	
	Borrower, Lessor or	Rate of Interest, Collateral,	
	Similar Party	Par or Maturity Value	Cost
*	Spire Corporation	199,920 shares of common stock	\$301 , 306
	Oppenheimer Funds	Oppenheimer Quest Opportunity Value	n/a
	Franklin Templeton Investments	Franklin Flexible Capital Growth	n/a
	American Funds	Europacific Growth	n/a
	Hartford Life Insurance Co.	Fixed Income	n/a
	AIM Funds	AIM Cash Reserve Shares	n/a
	American Funds	American Balanced	n/a
	Franklin Templeton Investments	Franklin Small-Mid Cap Growth	n/a
	MFS Investment Management	Mass Investors Growth Stock	n/a
	Eaton Vance	Large Cap Value	n/a
	Eaton Vance	Income Fund of Boston	n/a
	Allianz Funds	RCM Global Technology	n/a
	American Funds	New Perspective	n/a

Oppenheimer Funds	Oppenheimer Strategic Income	n/a
Sentinel Group Funds	Sentinel Small Company	n/a
PIMCO Funds	Total Return	n/a
Davis Funds	Davis New York Venture	n/a
Evergreen Investments	Evergreen Money Market	n/a
Black Rock Funds	Black Rock Money Market	n/a
Pioneer Investments	Pioneer Cash Reserves	n/a
Participant Loans	Interest rates 5% to 10%	n/a

* Represents party-in-interest

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SPIRE CORPORATION 401(K) PROFIT SHARING PLAN

SCHEDULE H, ITEM 4J - FORM 5500 SCHEDULE OF REPORTABLE TRANSACTION FOR THE YEAR ENDED DECEMBER 31, 2005

E.I.N. 04-2457335 Plan Number 002

(a)	(b)	(c)	(d)	(e)	(g)	(h)	(i)
Identity of Party Involved	Description of Assets	Purchase Price	Selling Price	Expense Incurred	Cost of Asset	Current Value	Net Gain (Loss)
Spire Corp.	Common stock 3 purchases 14 sales	\$3 , 111 	\$ \$674 , 286	\$ 31 \$2,413	\$ 3,142 \$300,718	\$ 3,209 \$631,111	\$ \$371 , 155

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SIGNATURE

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1034, the Investment Committee of the Spire Corporation 401(k) Profit Sharing Plan have duly caused this annual report to be signed on their behalf by the undersigned hereunto duly authorized.

SPIRE CORPORATION 401(k) PROFIT SHARING PLAN

Date: June 29, 2006 By: /s/ Christian Dufresne

Christian Dufresne Chief Financial Officer