

ARCH COAL INC  
Form 4  
February 23, 2011

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
LEER STEVEN F

(Last) (First) (Middle)  
ONECITYPLACE DRIVE  
(Street)  
ST. LOUIS, MO 63141

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
ARCH COAL INC [ACI]

3. Date of Earliest Transaction (Month/Day/Year)  
02/21/2011

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)  
Chairman and CEO

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
			Code	V Amount (D) Price			
Common Stock	02/21/2011		D	16,275 D 11	2,020	D	
Common Stock					62,512	I	By 401(k) plan

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Pr Deri Secu (Inst	
						Date Exercisable	Expiration Date	Title	Amount or Number of Shares
						Code	V	(A)	(D)
Phantom Stock	(2)	02/21/2011		A	16,275	(3)	(3)	Common Stock	16,275

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
LEER STEVEN F ONECITYPLACE DRIVE ST. LOUIS, MO 63141	X			Chairman and CEO

## Signatures

/s/ Jon S. Ploetz,  
Attorney-in-Fact

02/21/2011

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

- Upon the vesting of restricted stock units granted to the reporting person on February 21, 2008, the reporting person deferred the receipt of 16,275 shares of common stock and received instead 16,275 shares of phantom stock pursuant to the Arch Coal, Inc. Executive Deferred Compensation Plan. As a result, the reporting person is reporting the disposition of 16,275 shares of common stock in exchange for an equal number of shares of phantom stock.
- (1) Deferred Compensation Plan. As a result, the reporting person is reporting the disposition of 16,275 shares of common stock in exchange for an equal number of shares of phantom stock.
  - (2) Each share of phantom stock represents a right to receive one share of common stock unless otherwise deferred, at the reporting person's election, pursuant to the Arch Coal, Inc. Executive Deferred Compensation Plan.
  - (3) The phantom stock becomes payable upon the reporting person's termination of employment with Arch Coal, Inc.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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