

ARCH COAL INC  
Form 4  
February 11, 2008

**FORM 4**

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

OMB APPROVAL

OMB Number: 3235-0287  
Expires: January 31, 2005  
Estimated average burden hours per response... 0.5

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)  
02/07/2008

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 Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				(A) or (D)	Amount (D) Price		

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	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any	4. Transaction Code	5. Number of Derivative Securities Acquired	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. U (I)
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	Price of Derivative Security	(Month/Day/Year)	(Instr. 8)		(A) or Disposed of (D)		Date Exercisable	Expiration Date
			(A)	(D)	(A)	(D)		
Performance-contingent phantom stock	<u>(1)</u>	02/07/2008	M		89,700	<u>(2)</u>	12/31/2008	
Phantom stock	\$ 0	02/07/2008	M	89,700		<u>(4)</u>	<u>(4)</u>	

## 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/ Gregory A. Billhartz,  
Attorney-in-Fact

02/11/2008

  \*\*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).
- (1) Each performance-contingent phantom share represents a right to receive one share of common stock or the cash value thereof, unless otherwise deferred at the reporting person's election, pursuant to the Arch Coal, Inc. Executive Deferred Compensation Plan (the "Plan").  

The reporting person received 179,400 performance-contingent phantom shares on July 28, 2005. One-half of the performance-contingent phantom shares vest if the average closing price of Arch Coal's common stock for a period of 20 consecutive trading days meets or exceeds \$35.00 and the other half of the performance shares vest if the average closing price of Arch Coal's common stock for a period of 20 consecutive trading days meets or exceeds \$40.00, subject, in each case to the achievement of certain financial performance targets. On February 7, 2008, 89,700 performance-contingent phantom shares vested.
- (2) exceeds \$35.00 and the other half of the performance shares vest if the average closing price of Arch Coal's common stock for a period of 20 consecutive trading days meets or exceeds \$40.00, subject, in each case to the achievement of certain financial performance targets.  

On February 7, 2008, 89,700 performance-contingent phantom shares vested.
- (3) The reporting person received 179,400 performance-contingent phantom shares on July 28, 2005. One-half of the performance contingent phantom shares vest if the average closing price of Arch Coal, Inc.'s common stock for a period of 20 consecutive trading days meets or exceeds \$40.00, subject to the achievement of certain financial performance targets. Upon vesting of 89,700 performance contingent phantom shares on February 7, 2008, the reporting person deferred receipt of 89,700 shares of common stock pursuant to the Plan.
- (4) Shares of Arch Coal's common stock deferred pursuant to the Plan will be paid in annual installments or in a lump sum, at the reporting person's election, following termination of employment or on the dates specified by the reporting person in his payment election.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.