FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

	OMB APPROVAL								
	OMB Number:	3235-0287							
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l	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).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person*						2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ ACI ]								5. Relationship of Reporting Person(s) to Issuer (Check all applicable)				
LEER STEVEN F														(give title	10% O	·		
(Last) (First) (Middle) ONECITYPLACE DRIVE						3. Date of Earliest Transaction (Month/Day/Year) 07/28/2005								President & CEO				
(Street) ST. LOUIS MO 63141					4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable Line)  X Form filed by One Reporting Person					
(City)	(State) (Z		(Zip)	Zip)										Form filed by More than One Reporting Person				
		Tab	ole I - Non	-Deriv	ativ	e Se	curities	s Ac	quired, Di	sposed o	f, or Be	neficia	ly Owned	l				
1. Title of Security (Instr. 3)  2. Transac Date (Month/Da					Day/Year) i		2A. Deemed Execution Date if any (Month/Day/Yea		r, Transaction Disposed Code (Instr. 5)		rities Acquired (A) or ad Of (D) (Instr. 3, 4 a		Benefici Owned F	es For ally (D) Following (I) (	Ownership orm: Direct ) or Indirect (Instr. 4)	7. Nature of Indirect Beneficial Ownership		
									Code V	Amount	(A) or (D)		Reported Transact (Instr. 3	tion(s)		(Instr. 4)		
		-							uired, Dis , options,				Owned					
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution D if any (Month/Day/	Code (I					6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership (Instr. 4)		
				c	Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares						
Phantom Stock	(1)	07/28/2005	08/01/20	05	A		89,700		(2)	12/31/2008	Common Stock	89,700	(1)	89,700	D			

## Explanation of Responses:

- 2. The Phantom Stock will vest in the event the Company's common stock hits target prices of \$70.00 or \$80.00 and the Company's financial performance meets certain targets at such time.

## Remarks:

/s/ Janet L. Horgan, Attorneyin-Fact

08/01/2005

\*\* Signature of Reporting Person

Date

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

- \* 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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.