FORM 4

obligations may continue. See Instruction 1(b).

Check this box if no longer subject to Section 16. Form 4 or Form 5

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP
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OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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)					
BURKE FRANK M										,				X	Direct	or		10% O	wner	
(Last) (First) (Middle) ONE CITYPLACE DRIVE						3. Date of Earliest Transaction (Month/Day/Year) 03/31/2006									Office below	r (give title)		Other (s below)	specify	
(Street) ST. LOU	treet) T. LOUIS MO 63141				4. If	4. If Amendment, Date of Original Filed (Month/Day/Year)									Individual or Joint/Group Filing (Check Applicable ine) X Form filed by One Reporting Person Form filed by More than One Reporting					
(City)	(Si	tate) ((Zip)												Perso		C tria	ir one repe	, tung	
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																				
1. Title of Security (Instr. 3) 2. Tran Date (Month						ar) E	2A. Deemed Execution Date, if any (Month/Day/Yea		Code (Transaction Dispose Code (Instr. 5)					Reporte	ies Form cially (D) (Following (I) (I		n: Direct or Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
									Code	V	Amount	(A) (D)	Or Pri	e	Transad (Instr. 3	ansaction(s) nstr. 3 and 4)				
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 I if any (Month/Day	Date,	Code (Ins				6. Date Exe Expiration (Month/Day	Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		De Se (In	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(: (Instr. 4)	y	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership (Instr. 4)	
					Code	v	(A)	(D)	Date Exercisable		opiration	Title	Amour or Number of Shares	er						
Phantom Stock	(1)	03/31/2006	04/03/20	006	A		132		(2)		(2)	Common Stock	132		\$75.94	16,972		D		

Explanation of Responses:

- 1. Each share of phantom stock represents a right to receive the value in cash of one share of Arch Coal, Inc. common stock. The shares of phantom stock are held by the director through the Arch Coal, Inc. Deferred Compensation Plan for Non-Employee Directors (the "Plan") and represent past compensation that the director elected to defer under the Plan into a hypothetical investment in shares of Arch Coal, Inc. common stock and/or dividends attributable to such deferred amounts.
- 2. Shares of phantom stock are payable in cash following termination of the director's service as a director of Arch Coal, Inc. The director may transfer certain portions of the phantom stock account into an alternative investment account at any time.

Remarks:

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

04/04/2006

Date

** Signature of Reporting Person

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.