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FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

OMB APPROVAL									
OMB Number:	3235-0287								
Estimated average burden									
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1. Name and Addre	ess of Reporting Perso BRIAN J	on*	2. Issuer Name and Ticker or Trading Symbol <u>ARCH COAL INC</u> [ACI]		tionship of Reporting Perso : all applicable) Director	n(s) to Issuer 10% Owner
L (Lact) (Eirct) (Middlo)		(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 05/22/2007		Officer (give title below)	Other (specify below)
(Street) ST. LOUIS MO 63141		63141	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indiv Line) X	ridual or Joint/Group Filing Form filed by One Repor Form filed by More than	ting Person
(City)	(State)	(Zip)			Person	

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

I. Title of Security (Instr. 3)	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	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
		Code	v	Amount	(A) or (D)	Price	Reported Transaction(s) (Instr. 3 and 4)		(1130.4)

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

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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. Transa Code (8)		of		Expiration Date		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)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Phantom Stock	(1)	05/22/2007		I		304		(2)	(2)	Common Stock	304	(1)	2,666	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"). This report reflects the transfer of \$12,207 from an investment account to a hypothetical investment in shares of Arch Coal, Inc. common stock.

2. Shares of phantom stock are payable in cash on the date or dates elected by the director, subject to the terms of the Plan. The director may transfer any and all of the phantom stock account into an alternative investment account at any time.

Remarks:

<u>/s/ Gregory A. Billhartz,</u> <u>Attorney-in-Fact</u>

05/23/2007

** 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.