SEC Form 4

FORM 4

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

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

1. Name and Address of Reporting Person* SANDS THEODORE D	2. Issuer Name **and** Ticker or Trading Symbol ARCH COAL INC [ACI]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)
(Last) (First) (Middle) ONE CITYPLACE DRIVE	3. Date of Earliest Transaction (Month/Day/Year) 12/29/2006	X Director 10% Owner Officer (give title below) Other (specify below)
(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 Form filed by More than One Reporting Person
(City) (State) (Zip)		

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 Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			

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 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)	12/29/2006		A		916		(2)	(2)	Common Stock	916	$30.03	52,932	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   01/02/2007

** 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.