FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

OMB APPROVAL OMB Number: 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).

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)					
LOCKHART THOMAS A										,				X	Direct	or		10% Ov	vner	
(Last) (First) (Middle) ONE CITYPLACE DRIVE						3. Date of Earliest Transaction (Month/Day/Year) 09/28/2007									Office below	r (give title)		Other (s below)	specify	
(Street)					4. If	4. If Amendment, Date of Original Filed (Month/Day/Year)									6. Individual or Joint/Group Filing (Check Applicable Line)					
ST. LOU	T. LOUIS MO 63141													X	X Form filed by One Reporting Person Form filed by More than One Reporting Person					
(City)	(Si	tate) (Zip)												reisu	""				
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																				
1. Title of Security (Instr. 3) 2. Transa Date (Month/D						ar) E	A. Deemed Execution Date, f any Month/Day/Year)		Code (I	Transaction Dispose Code (Instr. 5)		rities Acqui ed Of (D) (In			5. Amou Securiti Benefic Owned Reporte	ies Form cially (D) (Following (I) (I		n: Direct r Indirect nstr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
								Code	v	Amount	nount (A) or (D)		ce	Transac (Instr. 3	ction(s)			(
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. Deemee Execution I if any (Month/Day	Date,	Code (In				6. Date Exe Expiration (Month/Day	Date		7. Title and Amount of Securities Underlying Derivative Secur (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)	Beneficial Ownership (Instr. 4)	
					Code	v	(A)	(D)	Date Exercisable		xpiration ate	Title	Amou or Numb of Share	er						
Phantom Stock	(1)	09/28/2007			A		363		(2)		(2)	Common Stock	363		\$33.74	11,718		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 amounts held in the phantom stock account into an alternative investment account at any time.

Remarks:

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

10/02/2007

** 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.