## FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Check this box if no longer subjects Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).
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## 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 hours per response: 0.5

	ress of Reporting P		2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ ACI ]		ationship of Reporting Pe < all applicable) Director	erson(s) to Issuer 10% Owner			
·				<b>X</b>	Officer (give title	Other (specify			
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year)		below)	below)			
ONE CITYPLACE DRIVE			10/07/2005		Vice President - Marketing				
ONE CITYPL	ACE DRIVE								
SUITE 300									
			4. If Amendment, Date of Original Filed (Month/Day/Year)	I Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check A					
(Street)				Line)					
		CD1 41		X	Form filed by One Reporting Person				
ST. LOUIS	MO	63141			Form filed by More that Person	an One Reporting			
(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)	Transaction Code (Instr.		4. Securities / Disposed Of (			5. Amount of Securities Beneficially Owned Following Reported	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership		
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(Instr. 4)		
Common Stock	10/07/2005		М		10,800	Α	\$22.6	0	D			
Common Stock	10/07/2005		S		10,800	D	\$64.068	447	I	By 401(k) plan		

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

	3		-												
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		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		Derivative Security curity (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				
Employee Stock Options	\$22.6	10/07/2005		М			10,800	(1)	04/25/2012	Common Stock	10,800	\$22.6	2,000	D	

Explanation of Responses:

1. These options vested as follows: 1,000 shares on April 25, 2004; and 9,800 shares vested on 6/30/2005.

Remarks:

<u>/s/ Robert G. Jones, Attorney-</u>

<u>in-Fact</u>

10/11/2005

\*\* 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.