FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL											
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obligations may continue. See
Instruction 1(h)

Filed pursuant to Section 16(a) of the Securities Eychange Act of 1934

(1	,		or Section 30(h) of the Investment Company Act of 1940	
	ress of Reporting Pe	erson <sup>*</sup>	2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ ACI ]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  Director 10% Owner  Officer (give title Other (specify
(Last) (First) (Middle) ONE CITYPLACE DRIVE SUITE 300		(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 02/25/2005	X Office (give title Office (specify below)  Senior VP-Strategic Dev.
(Street) ST. LOUIS (City)	MO (State)	63141 (Zip)	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

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	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	Transaction(s) (Instr. 3 and 4)		(111301.4)
Common Stock	02/24/2005		M		2,000	A	\$18.15	15	I	By 401(k) Plan
Common Stock	02/24/2005		S		2,000	D	\$43.5495	1,717	D	

#### 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. Transa Code ( 8)				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	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		Transaction(s) (Instr. 4)		
Employee Stock Options	\$18.15	02/24/2005		М			2,000	02/29/2004	02/29/2012	Common Stock	2,000	\$18.15	2,345	D	
Restricted Stock Units	(1)	02/24/2005		A		2,400		(2)	(3)	Common Stock	2,400	(1)	2,400	D	

### **Explanation of Responses:**

- 2. Restricted Stock Units vest ratably over a three-year period.
- 3. There is no expiration date for the Restricted Stock Units.

# Remarks:

/s/ Janet L. Horgan, Attorney-02/28/2005 in-Fact

\*\* Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  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.