

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL	
OMB Number:	3235-0287
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* <u>BESTEN C HENRY JR</u> (Last) (First) (Middle) <u>ONE CITYPLACE DRIVE</u> <u>SUITE 300</u> (Street) <u>ST. LOUIS MO 63141</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>ARCH COAL INC [ACI]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner Officer (give title below) Other (specify below) X Senior VP-Strategic Dev.
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/23/2007</u>	
	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 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			
Common Stock	02/23/2007		A		767	A	(1)	23,145	D	
Common Stock	02/26/2007		A		1,600	A	(2)	24,745	D	
Common Stock								29	I	By 401(k) Plan

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
Restricted Stock Units	(3)	02/23/2007		M			767	(4)	(5)	Common Stock	767	(1)	1,533	D	
Restricted Stock Units	(3)	02/26/2007		M			1,600	(6)	(5)	Common Stock	1,600	(2)	1,600	D	
Employee Stock Option (right to buy)	\$32.99	02/22/2007		A			47,650	(7)	02/21/2017	Common Stock	47,650	\$0.00	47,650	D	

Explanation of Responses:

- The reporting person received 2,300 restricted stock units on February 23, 2006. The restricted stock units vest ratably over a three-year period. On February 23, 2007, the reporting person received 767 shares of common stock.
- The reporting person received 4,800 restricted stock units on February 24, 2005. The restricted stock units vest ratably over a three-year period. On February 26, 2007, the reporting person received 1,600 shares of common stock.
- Each restricted stock unit represents a right to receive one share of common stock unless otherwise deferred, at the reporting person's election, pursuant to the Arch Coal, Inc. Executive Deferred Compensation Plan.
- The reporting person received 2,300 restricted stock units on February 23, 2006. The restricted stock units vest ratably over a three-year period. On February 23, 2007, 767 restricted stock units vested.
- The restricted stock units do not expire.
- The reporting person received 4,800 restricted stock units on February 24, 2005. The restricted stock units vest ratably over a three-year period. On February 26, 2007, 1,600 restricted stock units vested.
- The option vests in three equal annual installments beginning on February 22, 2008.

Remarks:

/s/ Gregory A. Billhartz, 02/27/2007
Attorney-in-Fact
 ** 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.

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