

BESTEN C HENRY JR
 Form 5
 February 14, 2005

FORM 5

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549**

OMB APPROVAL
 OMB Number: 3235-0362
 Expires: January 31, 2005
 Estimated average burden hours per response... 1.0

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).
 Form 3 Holdings Reported Form 4 Transactions Reported

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person *
BESTEN C HENRY JR

(Last) (First) (Middle)

**ONE CITYPLACE
 DRIVE, SUITE 300**

(Street)

ST. LOUIS, MO 63141

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol
ARCH COAL INC [ACI]

3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)
12/31/2004

4. If Amendment, Date Original Filed (Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director 10% Owner
 Officer (give title below) Other (specify below)
Senior VP-Strategic Dev.

6. Individual or Joint/Group Reporting

(check applicable line)

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) (A) or (D) Price	5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Ownership (Instr. 4)
---------------------------------	--------------------------------------	--	--------------------------------	---	--	--	--

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

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 control number.

SEC 2270 (9-02)

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	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Underlying Security (Instr. 3 and 4)
--	------------------------------------	--------------------------------------	--	--------------------------------	-------------------------	--	---	--

Derivative Security	Date		Relationship	Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		Expiration Date	Title	Amount or Number of Shares
	(A)	(D)		(A)	(D)			
Phantom Stock		12/31/2004 ⁽²⁾	A	32		⁽³⁾	Common Stock	32

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
BESTEN C HENRY JR ONE CITYPLACE DRIVE SUITE 300 ST. LOUIS, MO 63141			Senior VP-Strategic Dev.	

Signatures

/s/ Janet L. Horgan,
Attorney-in-Fact
02/14/2005

**Signature of Reporting Person Date

Explanation of Responses:

- * 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).
- (1) 1-for-1
- (2) Acquired on various dates in 2004 pursuant to periodic investments in Arch Coal Inc.'s Deferred Compensation Plan.
- (3) Payable in cash upon termination of the Reporting Person's service as an Officer of Arch Coal, Inc.

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.