

FORM 5

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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
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(f) of the Investment Company Act of 1940

1. Name and Address of Reporting Person*			2. Issuer Name and Ticker or Trading Symbol		6. Relationship of Reporting Person to Issuer	
Besten, C. Henry			Arch Coal, Inc. (ACI)		(Check all applicable)	
(Last)	(First)	(Middle)	3. IRS Identification Number of Reporting Person if an Entity (Voluntary)	4. Statement for Month/Year December 31, 2000	Director	10% Owner
City	Place One, Suite 300	(Street)			X Officer (give title below)	Other (specify below)
St. Louis, Missouri 63141					Vice President-Strategic Marketing	
(City)	(State)	(Zip)	5. If Amendment, Date of Original (Month/Year)		7. Individual or Joint/Group Filing (Check Applicable Line)	
					X Form filed by One Reporting Person	
					Form filed by More than One Reporting Person	

Table 1 - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security	2. Transaction	3. Transaction Code	4. Securities Acquired (A) or Disposed of (D)		5. Amount of Securities Beneficially Owned At the end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Amount	(A) or (D)	Price		
Common Stock	(1)	I	11,503	A	(1)	1,309	D
						20,093	I by 401(k)

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).

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)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Inst. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Inst. 5)	9. Number of Derivative Securities Beneficially Owned at End of Year (Instr. 4)
				(A)	(D)	Date Exerc-able	Expiration Date			
Phantom Stock	1-for-1	(2)	A	3,445		(2)	(2)	Common Stock	3,445	

Explanation of Responses:

- (1) Acquired on various dates in 2000 pursuant to Arch Coal, Inc's 401(k) plan, at prices ranging from \$4.75 to \$14.94.
- (2) Acquired on various dates in 2000 pursuant to Arch Coal, Inc.'s Deferred Compensation Plan at prices ranging from \$4.75 to \$14.75.
- (3) Shares of Phantom Stock are payable in cash after a term certain, retirement, or upon termination of employment at the election of the Reporting Person.

/S/Janet L. Horgan
 **By Janet L. Horgan, As
 Attorney-in-Fact

February 14, 2001
 Date

** 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.
 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.