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

FORM 5

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

Check 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

1. Name and Address of Reporting Person*

Charpie Robert A.

(Last) (First) (Middle)

55 Williams Street, Suite 240

(Street)

Wellesley MA 02182

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol

Arch Coal, Inc. (ACI)

3. IRS Identification Number of Reporting Person, if an Entity (Voluntary)

4. Statement for Month/Year

12/31/98

5. If Amendment, Date of Original (Month/Year)

6. Relationship of Reporting Person to Issuer
(Check all applicable)

Director 10% Owner
 Officer (give title below) Other (specify below)

7. Individual or Joint/Group Filing
(Check applicable line)

Form filed by one Reporting Person
 Form filed by more than one Reporting Person

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Table I -- Non-Derivative Securities Acquired, Disposed of,
or Beneficially Owned
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1. Title of Security (Instr. 3)	2. Transaction Date (mm/dd/yy)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		5. Amount of Securities Beneficially Owned at End of Issuer's Fiscal Year (Instr. 3 and 4)	6. Owner- ship Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Amount	Price			

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* If the form is filed by more than one Reporting Person, see Instruction 4(b)(v).

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

(Over)

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. Conver- sion or Exer- cise Price of Deriv- ative Secur- ity	3. Trans- action Date (Month/ Day/ Year)	4. Trans- action 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 Underlying Securities (Instr. 3 and 4)	8. Price of Deriv- ative Secur- ity (Instr. 5)	9. Number of Deriv- ative Secur- ities Bene- ficially Owned at End Year (Instr. 4)	10. Owner- ship of Deriv- ative Secur- ity: Direct (D) or In- direct (I) (Instr. 4)	11. Nature of In- direct Bene- ficial Owner- ship (Instr. 4)	
Phantom Stock	1 for 1	3/16/98	A	33.669	(1)	(1)	Common Stock	33.669	\$26.313	33.669(2)	(D)	
Phantom Stock	1 for 1	3/31/98	A	500	(1)	(1)	Common Stock	500	\$27.00	500(2)	(D)	

Explanation of Responses:

- Pursuant to the reporting person's election, phantom units were settled in cash upon the January 2 following the termination of such person's service as a director.
- Totals exclude previously reported Arch Coal, Inc. phantom stock units, including those acquired with the same price but on different acquisition dates.

/s/ Miriam Rogers Singer 1/26/99

 **Signature of Reporting Person Date
 Miriam Rogers Singer for Robert A. Charpie

** 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 provided is insufficient, see Instruction 6 for procedure.