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# FORM 4

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

# STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

## OMB APPROVAL OMB Number 2225 0207

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| E  | stimated average burd | en        |
| 19 | WD Number.            | 3233-0201 |

| 1. Name and Address of Reporting Person <sup>*</sup><br>Drexler John T. |               |                | 2. Issuer Name and Ticker or Trading Symbol<br>ARCH COAL INC [ ACI ] |                        | tionship of Reporting Perso<br>all applicable)<br>Director                                       | 10% Owner                      |  |
|---|---------------|----------------|--|------------------------|--|--------------------------------|--|
| (Last) (First) (Middle)<br>ONE CITY PLACE<br>SUITE 300                  |               | (Middle)       | 3. Date of Earliest Transaction (Month/Day/Year)<br>09/15/2009       | X                      | Officer (give title<br>below)<br>Sr. V.P. and CI   | Other (specify<br>below)<br>FO |  |
| (Street)<br>ST. LOUIS<br>(City)   | MO<br>(State) | 63141<br>(Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year)             | 6. Indiv<br>Line)<br>X | idual or Joint/Group Filing (<br>Form filed by One Report<br>Form filed by More than C<br>Person | ting Person                    |  |

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

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 3.<br>Transa<br>Code (<br>8) | ction | Disposed Of | Beneficially (D) or Indirect<br>Owned Following (I) (Instr. 4)<br>Reported |       | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |           |
|---------------------------------|--|---|------------------------------|-------|-------------|--|-------|---|--|-----------|
|                                 |  |   | Code                         | v     | Amount      | (A) or<br>(D)  | Price | Transaction(s)<br>(Instr. 3 and 4)                                |  | (insu. 4) |

### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of<br>Derivative<br>Security<br>(Instr. 3) | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | of E |     | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | Owned | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|------|-----|--|--------------------|--|--|---|-------|--|--|
|   |   |  |   | Code                         | v | (A)  | (D) | Date<br>Exercisable  | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of<br>Shares |   |       |  |  |
| Phantom<br>Stock                                    | (1)   | 09/15/2009                                 |   | A                            |   | 3    |     | (2)  | (2)                | Common<br>Stock  | 3                                      | \$21.6 <sup>(1)</sup>                               | 1,249 | D  |  |

#### Explanation of Responses:

1. Each share of phantom stock represents a right to receive the value in cash of one share of Arch Coal, Inc. common stock. The shares of phantom stock are held by the executive officer through the Arch Coal, inc. Deferred Compensation Plan (the "Plan"). The shares of phantom stock acquired by the executive officer represent dividends attributable to amounts that the executive officer elected to defer under the Plan into a hypothetical investment in shares of Arch Coal, Inc. common stock.

2. Shares of phantom stock are payable in cash on the date or dates elected by the executive officer, subject to the terms of the Plan. The executive officer may transfer any and all of the phantom stock account into an alternative investment account at any time.

### **Remarks:**

/s/ Gregory A. Billhartz, Attorney-in-Fact

09/17/2009

Date

\*\* Signature of Reporting Person

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.

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.