FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPROVAL             |     |  |  |  |  |  |  |  |
|--------------------------|-----|--|--|--|--|--|--|--|
| OMB Number: 3235-028     |     |  |  |  |  |  |  |  |
| 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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| 1. Name and Address of Reporting Person*  JONES ROBERT G |   |            |   | 2. Issuer Name <b>and</b> Ticker or Trading Symbol ARCH COAL INC [ ACI ] |                        |   |                   |   |  |  |                    | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  Director 10% Owner |   |   |   |   |  |  |
|--|---|------------|---|--|------------------------|---|-------------------|---|--|--|--------------------|---|---|---|---|---|--|--|
| ——————————————————————————————————————                   |   |            |   |  | _                      |   |                   |   |  |  |                    |   |   | Officer   | (give title   | Other   | (specify                                 |  |
| (Last) (First) (Middle)                                  |   |            |   |  |                        | 3. Date of Earliest Transaction (Month/Day/Year) 12/09/2003 |                   |   |  |  |                    |   |   | below)  |   | belov<br>Counsel & S  | ′ I                                      |  |
| ONE CITYPLACE DRIVE                                      |   |            |   |  |                        |   |                   |   |  |  |                    |   |   |   |   |   |  |  |
| (Street)   |   |            |   |  |                        |   | ndmei             | nt, Date                                | of Origin  | al File  | ed (Month/Da       |   | 6. Individual or Joint/Group Filing (Check Applicable Line) |   |   |   |  |  |
| ST. LOU  | IS M  | 0          | 63141                                       |  |                        |   |                   |   |  |  |                    |   |   | X Form filed by One Reporting Person                |   |   |  |  |
| -  |   |            |   |  | _                      |   |                   |   |  |  |                    |   |   | Form filed by More than One Reporting<br>Person     |   |   |  |  |
| (City)   | (S  | tate)      | (Zip)                                       |  |                        |   |                   |   |  |  |                    |   |   |   |   |   |  |  |
|  |   | Tab        | le I - No                                   | on-Deri  | vative                 | Sec   | urit              | ies Ac                                  | quired   | l, Di  | sposed c           | of, or Be   | neficia   | lly Owned   | t   |   |  |  |
| Date   |   |            |   | ansaction<br>th/Day/Year)  |                        | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |                   | 3.<br>Transaction<br>Code (Instr.<br>8) |  | 4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4 |                    | l (A) or<br>. 3, 4 and  | Benefic<br>Owned  | ies For (D) Following ed (I) (                      | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |  |  |
|  |   |            |   |  |                        |   |                   |   |  |  | Amount             | (A) or<br>(D)   | Price   |   | Reporte<br>Transac<br>(Instr. 3                                   |   |  |  |
| Common Stock 12/   |   |            | 12/09/                                      | /2003  |                        |   |                   | М                                       |  | 2,400  | A                  | \$10.6875   |   | 0 D   |   |   |  |  |
| Common Stock 12  |   |            | 12/09/                                      | 12/09/2003   |                        |   |                   |   |  | 2,400  | D                  | \$29.1  | .5  | 0   | D   |   |  |  |
| Common Stock   |   |            | 12/09/                                      | 12/09/2003   |                        |   |                   | М                                       |  | 8,500  | A                  | \$8.5   | 5   | 0   | D   |   |  |  |
| Common Stock   |   |            | 12/09/                                      | 2/09/2003  |                        |   |                   | S                                       |  | 1,600  | D                  | \$29.1  | .5  | 0   | D   |   |  |  |
| Common Stock 12  |   |            | 12/09/                                      | /2003  |                        |   |                   | S                                       |  | 3,000  | D                  | \$29.1  | .1  | 0   | D   |   |  |  |
| Common Stock 12/0  |   |            | 12/09/                                      | /2003  | 2003                   |   |                   | S                                       |  | 3,900  | D                  | \$29.0  | 08 2,   | ,146  | I   | By<br>401(k)  |  |  |
|  |   | T          | able II                                     |  |                        |   |                   |   |  |  |                    |   |   | y Owned   |   |   |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)      | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security |            | 3A. Deer<br>Execution<br>if any<br>(Month/I | med  | d 4.<br>Date, Transact |   | 5. Number tion of |   | 6. Date Exercisable<br>Expiration Date<br>(Month/Day/Year) |  | sable and<br>te    | Amount of   |   | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) |   | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4  | Beneficial<br>Ownership<br>ct (Instr. 4) |  |
|  |   |            |   |  | Code                   | v   | (A)               | (D)                                     | Date<br>Exercisa   | ıble   | Expiration<br>Date | Title   | Amount<br>or<br>Number<br>of<br>Shares                      |   |   |   |  |  |
| Employee<br>Stock<br>Option                              | \$10.6875   | 12/09/2003 |   |  | M                      |   |                   | 2,400                                   | 02/25/2  | 003  | 02/25/2009         | Common<br>Stock   | 2,400   | \$10.6875   | 0   | D   |  |  |
| Employee<br>Stock<br>Options                             | \$8.5   | 12/09/2003 |   |  | M                      |   |                   | 8,500                                   | 02/24/2  | 002  | 02/24/2010         | Common<br>Stock   | 8,500   | \$8.5   | 4,750   | D   |  |  |

**Explanation of Responses:** 

Remarks:

/s/ Janet L. Horgan, Attorney-

12/10/2003

in-Fact

\*\* Signature of Reporting Person

Date

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

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.

<sup>\*</sup> If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

<sup>\*\*</sup> Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).