FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL        |           |  |  |  |  |  |  |  |  |
|---------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number:         | 3235-0287 |  |  |  |  |  |  |  |  |
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hours per response:

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

| 1. Name and Address of Reporting Person* FELDMAN SHEILA B  |   |  |  |       | 2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ ACI ] |  |     |   |  |                |                    |   | heck all  | nship of Reportir<br>applicable)<br>birector  | 10% (   | Owner                       |   |  |
|--|---|--|--|-------|---|--|-----|---|--|----------------|--------------------|---|---|---|---|-----------------------------|---|--|
| (Last) (First) (Middle) ONECITYPLACE DRIVE   |   |  |  |       | 3. Date of Earliest Transaction (Month/Day/Year) 04/30/2008       |  |     |   |  |                |                    |   |   | officer (give title<br>elow)<br>VP - Huma   | below<br>n Resources                                | (specify<br>)               |   |  |
| (Street) ST. LOUIS MO 63141 (City) (State) (Zip)   |   |  |  |       | 4. If   | 4. If Amendment, Date of Original Filed (Month/Day/Year) |     |   |  |                |                    |   | ne)<br><mark>X</mark> F<br>F                          | ridual or Joint/Group Filing (Check Applicable  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. Transac Date (Month/Da   |   |  |  |       | Execution Date,   |  |     | 3. Transaction Code (Instr. 3, 8)  4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 5) |  |                | (A) or<br>3, 4 an  | id Se<br>Be<br>Ov   | Amount of curities eneficially vned Following eported | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4)   | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |                             |   |  |
|  |   |  |  |       |   |  |     | Code  | v  | Amount (A) (C) |                    | ) or<br>)   | Price   | Tra   | ansaction(s)<br>str. 3 and 4)                       |                             | (Instr. 4)  |  |
| Common Stock 04/30/  |   |  |  | /2008 |   | S  |     | 1,000   |  | D              | \$58.              | .05   | 5,293   | D   |   |                             |   |  |
| 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 D<br>if any<br>(Month/Day/ | Date, | Date, Transacti<br>Code (Ins                                      |  |     |   | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |   |   | 8. Price<br>Derivati<br>Security<br>(Instr. 5       | ve derivative<br>Securities | 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>Exercisa   |                | Expiration<br>Date | Title   | or<br>Nun<br>of<br>Sha                                | nber<br>res   |   |                             |   |  |

Explanation of Responses:

Remarks:

/s/Gregory A. Billhartz, Attorney-in-Fact 05/01/2008

\*\* Signature of Reporting Person Date

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

- $^{\star}$  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.