| SEC Form 4 | |
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FORM 4

UNITED STATES 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). | |

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

| | JVAL |
|------------------------|-----------|
| OMB Number: | 3235-0287 |
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| hours per response: | 0.5 |

| | | Person* | 2. Issuer Name and Ticker or Trading Symbol ARCH COAL INC [ACI] | | ationship of Reporting Pe k all applicable) Director | erson(s) to Issuer 10% Owner |
|---------------------------------|----------------------|------------------|-----------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| (Last) ONE CITYPL | (First) ACE DRIVE | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) 03/30/2012 | | Officer (give title below) | Other (specify below) |
| (Street) ST. LOUIS (City) | MO (State) | 63141 (Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Indi Line) X | vidual or Joint/Group Fili Form filed by One Re Form filed by More th Person | porting Person |
| | | Table I - Non-De | rivative Securities Acquired, Disposed of, or Bene | ficially | Owned | |

| | | = | | - | | | - | | | | 4 | | |
|-----------------------------|--------------------------------------------|---|------------------------------|-------|---------------|---------------|-------|---------------------------------------------------------------|--|---------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|--|
| itle of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | | 3. Transa Code (8) | ction | Disposed Of (| | | Securities Acquired (A) or isposed Of (D) (Instr. 3, 4 and | | 5. Amount of Securities Beneficially Owned Following Reported | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | Code | v | Amount | (A) or (D) | Price | Transaction(s) (Instr. 3 and 4) | | (1130.4) | | | |

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) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transa Code (8) | | 5. Num of Deriva Securi Acquir (A) or Dispos of (D) (Instr. and 5) | tive ties ed sed 3, 4 | Expiration Date (Month/Day/Year) | | n Date Amount of | | Amount of Derivative Security Inderlying (Instr. 5) Derivative Security | | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | Code | v | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Phantom Stock | (1) | 03/30/2012 | | Α | | 1,401 | | (2) | (2) | Common Stock | 1,401 | \$10.71 | 21,378 | 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 director through the Arch Coal, Inc. Deferred Compensation Plan for Non-Employee Directors (the "Plan") and represent past compensation that the director elected to defer under the Plan into a hypothetical investment in shares of Arch Coal, Inc. common stock and/or dividends attributable to such deferred amounts.

2. Shares of phantom stock are payable in cash following termination of the director's service as a director of Arch Coal, Inc. The director may transfer amounts held in the phantom stock account into an alternative investment account at any time.

Remarks:

<u>/s/ Jon S. Ploetz, Attorney-in-Fact</u>

04/03/2012

** Signature of Reporting Person

Date

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.