

| OMB APPROVAL | |
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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* <u>Slone Deck</u> (Last) (First) (Middle) ONE CITYPLACE DRIVE SUITE 300 (Street) ST. LOUIS MO 63141 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>ARCH COAL INC [ARCH]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Sr. VP - Strategy & Public Pol</u> |
| | 3. Date of Earliest Transaction (Month/Day/Year) <u>11/23/2018</u> | |
| 4. If Amendment, Date of Original Filed (Month/Day/Year) | | |

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

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 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 | | | |
| Common Stock | 11/23/2018 | | M | | 74 | A | (1) | 943 | D | |
| Common Stock | 11/23/2018 | | F | | 74 | D | \$82.12 | 869 | D | |

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. Transaction 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 Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 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 |
| Restricted Stock Units | (1) | 11/23/2018 | | M | | | 74 | (2) | (2) | Class A Common Stock | 74 | \$0.00 | 6,599 | D | |

Explanation of Responses:

- Each restricted stock unit converts into one share of Class A Common Stock of Arch Coal, Inc. (the "Company").
- On November 23, 2016, the reporting person was granted 6,750 restricted stock units, vesting in three equal annual installments beginning on the first anniversary of the grant date. A portion of the restricted stock units vested on November 23, 2018 was converted into shares and withheld by the Company to satisfy the associated tax withholding obligations. The remaining portion of such vested restricted stock units will convert into shares on the third anniversary of the grant date.

Remarks:

/s/ Rosemary L. Klein,
Attorney-in-Fact
 ** Signature of Reporting Person Date 11/26/2018

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