

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

OMB Number: 3235-0104  
Estimated average burden  
hours per response: 0.5Filed 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>Kelley Allen R.</u>	2. Date of Event Requiring Statement (Month/Day/Year) 03/03/2014	3. Issuer Name and Ticker or Trading Symbol <u>ARCH COAL INC [ ACI ]</u>	
		4. 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>VP - Human Resources</u>	5. If Amendment, Date of Original Filed (Month/Day/Year) 03/05/2014
(Last) (First) (Middle) <u>ONE CITYPLACE DRIVE</u> <u>SUITE 300</u>	(Street) <u>ST. LOUIS MO 63141</u>	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person	
(City) (State) (Zip)			

## Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	400	D	
Common Stock	2,710	I	By 401(k)

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				
Employee Stock Options	(1)	02/27/2017	Employee Stock Options	4,150	32.99	D
Employee Stock Options	(2)	02/21/2018	Employee Stock Options	2,250	52.69	D
Employee Stock Options	(3)	02/19/2019	Employee Stock Options	3,750	14.05	D
Employee Stock Options	(4)	02/18/2020	Employee Stock Options	2,800	22.65	D
Employee Stock Options	(5)	02/24/2021	Employee Stock Options	2,300	32.49	D
Employee Stock Options	(6)	02/23/2022	Employee Stock Options	3,750	13.93	D
Employee Stock Options	(7)	02/28/2023	Employee Stock Options	7,400	5.23	D
Restricted Stock Units	(8)	(9)	Restricted Stock Units	1,500	13.93	D
Restricted Stock Units	(10)	(9)	Restricted Stock Units	3,600	5.23	D

## Explanation of Responses:

- The reporting person received 4,150 stock options on February 22, 2007. All the stock options vested on February 22, 2010.
- The reporting person received 2,250 stock options on February 21, 2008. All the stock options vested on February 21, 2011.
- The reporting person received 3,750 stock options on February 19, 2009. All the stock options vested on February 19, 2013.
- The reporting person received 2,800 stock options on February 18, 2010. All stock options vested on February 18, 2014.
- The reporting person received 2,300 stock options on February 24, 2011. All the stock options vested on February 24, 2014.
- The reporting person received 3,750 stock options on February 23, 2012. The stock options vest ratably over 3 years as follows: 1,250 shares vested on February 23, 2013; 1,250 shares vested on February 23, 2014; and 1,250 shares will vest on February 23, 2015.
- The reporting person received 7,400 stock options on February 28, 2013. The options will vest ratably over 3 years as follows: 2,467 shares vested on February 28, 2014; 2,467 shares will vest on February 28, 2015; and 2,466 shares will vest on February 28, 2016.
- The reporting person received 1,500 restricted stock units on February 23, 2012. All of these restricted stock units vest on February 23, 2015.
- The restricted stock units do not expire.
- The reporting person received 3,600 restricted stock units on February 28, 2013. All of these restricted stock units vest on February 28, 2016.

## Remarks:

/s/ Jon S. Ploetz, Attorney-in-Fact 03/07/2014

\*\* 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 5 (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.

