BOYCE GREGORY H
Form 4
September 24, 2010

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
BOYCE GREGORY H

(Last) (First) (Middle)

PEABODY ENERGY CORPORATION, 701 MARKET STREET

(Street)

ST. LOUIS, MO 63101

(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading Symbol
PEABODY ENERGY CORP [BTU]

3. Date of Earliest Transaction (Month/Day/Year)
09/22/2010

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
__X__ Director _____ 10% Owner
__X__ Officer (give title below) _____ Other (specify below)
Chairman and CEO

6. Individual or Joint/Group Filing(Check Applicable Line)
_X_ 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. 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	09/22/2010		M(1)		8,456	A	$ 9.0067	209,811 (2)	D	
Common Stock	09/22/2010		S(1)		8,456	D	$ 49.5	201,355 (2)	D	

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

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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 Underlying Securities (Instr. 3 and 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Employee Stock Option (right to buy)	$ 9.0067	09/22/2010		M[(1)]			8,456	10/01/2003	10/01/2013	Common Stock	8,456

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
BOYCE GREGORY H PEABODY ENERGY CORPORATION 701 MARKET STREET ST. LOUIS, MO 63101	X		Chairman and CEO	

Signatures

Gregory H. Boyce By: Kenneth L. Wagner Attorney-in-Fact	09/24/2010
**Signature of Reporting Person	Date

Explanation of Responses:

***** 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).

(1) This exercise/sale was effected pursuant to a pre-existing Rule 10b5-1 trading plan adopted by the reporting person.

(2) Includes 6,483 shares acquired pursuant to the Company's Employee Stock Purchase Plan.

(3) Not applicable.

(4) Does not include employee stock options with different expiration dates and exercise prices.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.
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