

CLOUD PEAK ENERGY INC.  
Form 4  
December 21, 2010

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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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 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 \*  
RIO TINTO PLC

2. Issuer Name and Ticker or Trading Symbol  
CLOUD PEAK ENERGY INC.  
[CLD]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction  
(Month/Day/Year)  
12/21/2010

Director  10% Owner  
 Officer (give title below)  Other (specify below)

2 EASTBOURNE TERRACE

(Street)

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

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

LONDON, X0 W2 6LG

(City) (State) (Zip)

**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 Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price
Common Stock	12/21/2010		C		29,400,000	A	\$ 19.5
Common Stock	12/21/2010		S		29,400,000	D	\$ 19.5

See footnote (2)

See footnote (2)

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 Security (Instr. 3 and 4)
Common Membership Units	<u>(1)</u>	12/21/2010		C	29,400,000	<u>(1)</u> <u>(1)</u>	Common Stock, par value \$0.01 per share, of CLD

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
RIO TINTO PLC 2 EASTBOURNE TERRACE LONDON, X0 W2 6LG	X	X		
RIO TINTO EUROPEAN HOLDINGS LTD 2 EASTBOURNE TERRACE LONDON, X0 W2 6LG	X	X		
RIO TINTO WESTERN HOLDINGS LTD 2 EASTBOURNE TERRACE LONDON, X0 W2 6LG	X	X		
RIO TINTO AMERICA HOLDINGS INC 4700 DAYBREAK PARKWAY SOUTH JORDAN, UT 84095	X	X		
RIO TINTO AMERICA INC 4700 DAYBREAK PARKWAY SOUTH JORDAN, UT 84095	X	X		
RIO TINTO ENERGY AMERICA INC 4700 DAYBREAK PARKWAY SOUTH JORDAN, UT 84095	X	X		
KENNECOTT MANAGEMENT SERVICES CO 4700 DAYBREAK PARKWAY SOUTH JORDAN, UT 84095	X	X		

## Signatures

RIO TINTO plc, By: /s/ Ben Mathews (Secretary)	12/21/2010
__Signature of Reporting Person	Date
RIO TINTO EUROPEAN HOLDINGS LIMITED, By: /s/ Ben Mathews (Director)	12/21/2010
__Signature of Reporting Person	Date
RIO TINTO WESTERN HOLDINGS LIMITED, By: /s/ Ben Mathews (Director)	12/21/2010
__Signature of Reporting Person	Date
RIO TINTO AMERICA HOLDINGS INC., By: /s/ James Berson (Attorney in Fact)	12/21/2010
__Signature of Reporting Person	Date
RIO TINTO AMERICA, By: /s/ James Berson (Attorney in Fact)	12/21/2010
__Signature of Reporting Person	Date
RIO TINTO ENERGY AMERICA, By: /s/ James Berson (Operating Officer)	12/21/2010
__Signature of Reporting Person	Date
KENNECOTT MANAGEMENT SERVICES COMPANY, By: /s/ James Berson (Operating Officer)	12/21/2010
__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) For text of footnote 1, *see* Exhibit 99.1.
- (2) For text of footnote 2, *see* Exhibit 99.1.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.