

Boor William C
Form 4
February 23, 2011

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 *
Boor William C

2. Issuer Name and Ticker or Trading Symbol
CLIFFS NATURAL RESOURCES INC. [CLF]

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
 Director 10% Owner
 Officer (give title below) Other (specify below)
SVP, Global Ferroalloys.

(Last) (First) (Middle)
200 PUBLIC SQUARE, SUITE 3300
(Street)

3. Date of Earliest Transaction (Month/Day/Year)
02/23/2011

CLEVELAND, OH 44114-2315

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

(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 Beneficial Ownership (Instr. 4)
				(A) or (D)	Price		
Common Stock	02/23/2011		A ⁽¹⁾	9,000	A \$ 0	24,927.3491	D
Common Stock	02/23/2011		F ⁽²⁾	3,565	D \$ 92.67	21,362.3491	D
Common Stock						16,714	I VNQDC

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)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Owned Beneficially (Instr. 3 and 4)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Boor William C 200 PUBLIC SQUARE SUITE 3300 CLEVELAND, OH 44114-2315			SVP, Global Ferroalloys.	

Signatures

/s/ Keirsten Riedel by Power of Attorney
Date: 02/23/2011
**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) Reflects a payout of performance shares for the 2008-2010 performance period earned under the Issuer's 2007 Incentive Equity Plan.
- (2) Reflects the surrender of 2,896 performance shares and 669 restricted share units from the 2008-2010 performance period in payment of the related tax liability incurred by the Reporting Person as a result of the award.
- (3) The Board of Directors of the Issuer declared a dividend payable to all holders of record as of November 19, 2010 of Common Stock payable on December 1, 2010. The amount shown reflects 12.0716 shares credited to the Reporting Person pursuant to the Issuer's Dividend Reinvestment and Stock Purchase Plan.
- (4) Balance shown reflects 47, 35, and 33 shares to acquired June 1, 2010, September 1, 2010, and December 1, 2010 respectively, pursuant to the dividend reinvestment feature of the Issuer's 2005 Voluntary Non-Qualified Deferred Compensation Plan (the VNQDC Plan).

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.