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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
Under
The Securities Act of 1933

CLEVELAND-CLIFFS INC
(Exact Name of Registrant as Specified in Its Charter)

OHIO 34-1464672
(State or Other Jurisdiction (I.R.S. Employer Identification No.)
of Incorporation or Organization)

18th Floor, Diamond Building
1100 Superior Avenue, Cleveland, Ohio 44114-2589
(Address of Principal Executive Offices Including Zip Code)

**Cleveland-Cliffs Inc Nonemployee Directors' Compensation Plan
(AS AMENDED THROUGH MAY 8, 2001)**
(Full Title of the Plan)

John E. Lenhard, Esq.
Secretary and Corporate Counsel
Cleveland-Cliffs Inc
18th Floor, Diamond Building
1100 Superior Avenue
Cleveland, Ohio 44114-2589
(Name and Address of Agent For Service)
(216) 694-5700
(Telephone Number, Including Area Code, of Agent For Service)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maxi- mum Offering Price Per Share (2)	Proposed Maxi- mum Aggregate Offering Price (2)	Amount of Registration Fee
Common Shares, par value \$1.00 per share(3)	50,000	\$19.14	\$957,000	\$239.25

(1) Pursuant to Rule 416 of the Securities Act of 1933 ("Securities Act"), this Registration Statement also covers such additional Common Shares, par value \$1.00 per share ("Common Shares"), as may become issuable pursuant to the anti-dilution provisions of the Cleveland-Cliffs Inc Nonemployee Directors' Compensation Plan (As Amended through May 8, 2001) ("Plan").

(2) Estimated solely for calculating the amount of the registration fee, pursuant to paragraphs (c) and (h) of Rule 457 of the General Rules and Regulations under the Securities Act, on the basis of the average of the high and low sale prices of such securities on the New York Stock Exchange on June 26, 2001, within five business days prior to filing.

(3) One common share purchase right ("Right") will also be issued with respect to each Common Share. The terms of the Rights are described in the Form 8-A filed by the Registrant on September 19, 1997.

Exhibit Index Appears on Page 4

Part II

Pursuant to General Instruction E to Form S-8, the contents of Registration Statement No. 333-06049 on Form S-8 as filed by Cleveland-Cliffs Inc (the “Registrant”) with the Securities and Exchange Commission (“SEC”) on June 16, 1996, is incorporated herein by reference.

Item 8. Exhibits

- 4(a) Articles of Incorporation, as amended, of the Registrant (filed as Exhibit 3(a) to the Registrant’s Annual Report on Form 10-K filed on February 2, 2001 and incorporated by reference)
- 4(b) Regulations of the Registrant (filed as Exhibit 3(b) to the Registrant’s Annual Report on Form 10-K for the year ended December 31, 2000 and incorporated herein by reference)
- 4(c) Cleveland-Cliffs Inc Nonemployee Directors’ Compensation Plan, effective July 1, 1996 (filed as Exhibit 10(vv) to the Registrant’s Annual Report on Form 10-K filed on February 2, 2001 and incorporated by reference)
- 4(d) First Amendment to Cleveland-Cliffs Inc Nonemployee Directors’ Compensation Plan, effective as of November 12, 1996 (filed as Exhibit 10(dd) to Registrant’s Form 10-K filed on March 26, 1997 and incorporated by reference)
- 4(e) Second Amendment to Cleveland-Cliffs Inc Nonemployee Directors’ Compensation Plan, effective as of May 13, 1997 (filed as Exhibit 10(m) to Registrant’s Form 10-Q filed on August 13, 1997 and incorporated by reference)
- 4(f) Third Amendment to Cleveland-Cliffs Inc Nonemployee Directors’ Compensation Plan, effective as of January 1, 1999 (filed as Exhibit 10(qq) to Form 10-K of Cleveland-Cliffs Inc filed on March 25, 1999 and incorporated by reference)
- 4(g) Fourth Amendment to Cleveland-Cliffs Inc Nonemployee Directors’ Compensation Plan, effective May 8, 2001 (filed as Appendix B to the Registrant’s Proxy Statement dated March 26, 2001 and incorporated herein by reference)
- 4(h) The Registrant’s Form 8-A with respect to the Rights (filed on September 19, 1997 and incorporated herein by reference)
- 23 Consent of Independent Auditors
- 24 Power of Attorney

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Cleveland, State of Ohio, on June 28, 2001.

CLEVELAND-CLIFFS INC

By: /s/ John S. Brinzo

John S. Brinzo, Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities as of June 28, 2001.

Signature	Title
*	Chairman and Chief Executive Officer and Director (Principal Executive Officer)
J. S. Brinzo	
*	Senior Vice President-Finance (Principal Financial Officer)
C. B. Bezik	
*	Vice President and Controller (Principal Accounting Officer)
R. J. Leroux	
*	Director
R. C. Cambre	
*	Director
R. Cucuz	
*	Director
J. D. Ireland, III	
*	Director
L. L. Kanuk	
*	Director
F. R. McAllister	
*	Director
J. C. Morley	
*	Director
S. B. Oresman	
*	Director
A. Schwartz	

* John E. Lenhard, the undersigned attorney-in-fact, by signing his name hereto, does hereby sign and execute this Registration Statement on behalf of the above indicated officers and directors thereof (constituting a majority of the directors) pursuant to a power of attorney filed with the Securities and Exchange Commission.

June 28, 2001

By: /s/ John E. Lenhard

John E. Lenhard, Attorney-in-Fact

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- 4(h) The Registrant's Form 8-A with respect to the Rights (filed on September 19, 1997 and incorporated herein by reference)
- 4(i) Rights Agreement, dated September 19, 1997 between the Registrant and First Chicago Trust Company of New York (filed as Exhibit 4.1 to the Registrant's Form 8-K filed on September 19, 1997 and incorporated herein by reference)
- 23 Consent of Independent Auditors
- 24 Power of Attorney