| Registration No. | |
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

FORM S-8

REGISTRATION STATEMENT Under The Securities Act of 1933

Cliffs Natural Resources Inc.

(Exact Name of Registrant as Specified in Its Charter)

Ohio

34-1464672

(State or Other Jurisdiction of Incorporation or Organization)

(I.R.S. Employer Identification No.)

200 Public Square, Suite 3300, Cleveland, Ohio 44114-2315 (Address of Principal Executive Offices Including Zip Code)

(Full Title of the Plan)

James D. Graham, Esq.
Vice President, Chief Legal Officer and Secretary
Cliffs Natural Resources Inc.
200 Public Square, Suite 3300
Cleveland, Ohio 44114-2315

(216) 694-5700

(Name and Address, and Telephone Number, including Area Code, of Agent For Service)

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

| Large accelerated filer | X |
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| attaccal a acce filer | X | |
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| (2) | Estimated solely for the purposes of determining the amount of the registration fee, pursuant to paragraphs (c) and (h) of Rule 457 under the Securities Act, on the basis of the average of the high and low sale prices of the Common Shares on the New York Stock Exchange on July 22, 2014, a date that is within five business days prior to filing. | |
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employee or agent of another corporation, domestic or foreign, nonprofit or for profit, partnership, joint venture, trust or other enterprise; provided, however, that the Registrant will indemnify any such agent (as opposed to any director, officer or employee) of the Registrant to an extent greater than required by law only if and to the extent that the Registrant's directors may, in their discretion, so determine. The indemnification the Registrant gives will not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any law, the Registrant's Third Amended Articles of Incorporation or any agreement, vote of shareholders or of disinterested directors or otherwise, both as to action in official capacities and as to action in another capacity while such person is a Registrant director, officer, employee or agent, and shall continue as to a person who has ceased to be a Registrant director, trustee, officer, employee or agent and shall inure to the benefit of heirs, executors and administrators of such a person.

The Registrant may, to the full extent permitted by law and authorized by the Registrant's directors, purchase and maintain insurance on behalf of any persons described in the paragraph above against any liability asserted against and incurred by any such person in any such capacity, or arising out ofdincentation as such, whether or not the Registrant would have the power to indemnify such person against such liability.

Under the Ohio Revised Code, Ohio corporations are authorized to indemnify directors, officers, employees and agents within prescribed limits and Thes Chide Passify Chade whole aerthorizer paymeterate in judger (Code does not provide statutory authorization for a corporation to indemnify directors, officers, employees and agents for settlements, fines or judgments in the context of derivative suits. However, it provides that directors (but not officers, employees or agents) are entitled to mandatory advancement of expenses, including attorneys' fees, incurred in defending any action, including derivative actions, brought against the director, provided that the director agrees to cooperate with the corporation concerning the matter and to repay the amount advanced if it isst that ermg heaf ns, b to cooper di f f f

| Exhibit Number | Exhibit Description |
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| 4.1 | Third Amended Articles of Incorporation of Cliffs (as filed with the Secretary of State of the State of Ohio on May 13, 2013 (filed as Exhibit 3.1 to Cliffs' Form 8-K on May 13, 2013 and incorporated herein by reference) |
| 4.2 | Regulations of Cleveland-Cliffs Inc. (filed as Exhibit 3.2 to Cliffs' Form 10-K for the period ended December 31, 2011 and incorporated herein by reference) |
| 4.3 | 2014 Nonemployee Directors' Compensation Plan (filed as Annex A to Cliffs' Definitive Proxy Statement on Schedule 14A, filed June 10, 2014 and incorporated herein by reference) |
| 5.1 | Opinion of Counsel |
| 23.1 | Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm |
| 23.2 | Consent of Counsel (included in Exhibit 5.1) |
| 24.1 | Power of Attorney |

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effe yit e, ar

therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Pursuant to the requirements of the Securities Act, 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 this 29th day of July, 2014.

By: /s/ James D. Graham

James D. Graham
Vice President, Chief Legal Officer and
Secretary

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities indicated as of July 29, 2014.

| * G. B. Halverson | President, Chief Executive Officer and Director (Principal Executive Officer) |
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| * T. M. Paradie | Executive Vice President and Chief Financial Officer (Principal Financial Officer) |
| * | Vice President, CorporaNO U ` N |
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| We consent to the incorporati | ion by reference in this Registration ents and financial statement schedu | n Statement on Form S-8 of our lle of Cliffs Natural Resources l | reports dated February 14, 201- Inc. entated | 4, relating to the |
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KNOW ALL BY THESE PRESENTS, that each of the undersigned directors and officers of Cliffs Natural Resources Inc., an Ohio corporation (the "Registrant"), does hereby constitute and appoint each of Gary B. Halverson, P. Kelly Tompkins and James D. Graham, or any of them, each acting alone, as the true and lawful attorney-in-fact or attorneys-in-fact for each of the undersigned, with full power of substitution and resubstitution, and in the name, place and stead of each of the undersigned, to execute and file (1) one or more Registration Statements on Form S-8 (the "Form S-8 Registration Statement") with respect to the registration under the Securities Act of 1933 of the Registrant's Common Shares issuable in connection with the Cliffs Natural Resources Inc. Amended and Restated 2012 Incentive Equity Plan, (2) any and all amendments, including post-effective amendments, supplements and exhibits to the Form S-8 Registration Statement and (3) any and all applications or other documents to be filed with the Securities and Exchange Commission or any state securities commission or other regulatory authority or exchange with respect to the securities covered by the Form S-8 Registration Statement, with full power and authority to do and perform any and all acts and things whatsoever necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the said director and/or officer, hereby ratifying and approving the acts of said attorneys and any of them and any such substitute.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands as of the 28th day of July, 2014.

Director

| /s/ G. B. Halverson | /s/ T. M. Paradie |
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| G. B. Halverson President, Chief Executive Officer and Director (Principal Executive Officer) | T. M. Paradie Executive Vice Chairman and Chief Financial Officer (Principal Financial Officer) |
| /s/ T. K. Flanagan | /s/ S. M. Cunningham |
| T. K. Flanagan Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer) | S. M. Cunningham Director |
| /s/ B. J. Eldridge | /s/ M. E. Gaumond |
| B. J. Eldridge Director /s/ A. R. Gluski | M. E. Gaumond Director /s/ S. M. Green |
| A. R. Gluski Director | S. M. Green Director |
| /s/ J. K. Henry | /s/ S. M. Johnson |
| J. K. Henry Director | S. M. Johnson Director |
| /s/ J. K. Kirsch | /s/ R. K. Riederer |
| J. F. Kirsch Director | R. K. Riederer Director |
| /s/ T. Sullivan | |
| T. Sullivan | |