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

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Centrus Energy Corp.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State of Incorporation) 52-2107911 (I.R.S. Employer Identification No.)

Two Democracy Center 6903 Rockledge Drive Bethesda, MD 20817 (Address of Principal Executive Offices including Zip Code)

CENTRUS ENERGY CORP. 2014 EQUITY INCENTIVE PLAN (Full Title of the Plan)

John C. Barpoulis Senior Vice President and Chief Financial Officer Centrus Energy Corp.

Two Democracy Center 6903 Rockledge Drive Bethesda, MD 20817 (301) 564-3200 Copy to: Scott C. Herlihy Latham & Watkins LLP 555 11th Street, NW Suite 1000 Washington, DC 20004 202-637-2200

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code for 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 definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer \Box

Non-accelerated filer

 \Box (do not check if a smaller reporting company)

Accelerated filer

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount of shares to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Maximum Amount of Aggregate Offering Price (2)	Amount of Registration Fee (2)
Class A common stock, \$0.10 par value per share, reserved for issuance under the Centrus Energy Corp.				
2014 Equity Incentive Plan	1,000,000	\$5.57	\$5,570,000	\$647.23

(1) This Registration Statement registers 1,000,000 shares of Class A common stock, \$0.10 par value per share (the "Common Stock") of Centrus Energy Corp. (the "Company") pursuant to the Centrus Energy Corp. 2014 Equity Incentive Plan (the "Incentive Plan"). In accordance with Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers any additional shares of Common Stock which become issuable under the Incentive Plan, by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the outstanding shares of Common Stock of the Company.

(2) Estimated in accordance with Rule 457(c) and (h) under the Securities Act solely for the purpose of calculating the registration fee. The Proposed Maximum Offering Price Per Share is based upon the average of the high and low prices for the Registrant's Common Stock as reported on the New York Stock Exchange on November 20, 2014 (\$5.57).

EXPLANATORY NOTE

On September 5, 2014, the United States Bankruptcy Court for the District of Delaware entered an order approving and confirming the Plan of Reorganization of USEC Inc., dated July 11, 2014 (the "Reorganization Plan"), and on September 30, 2014 (the "Effective Date"), all of the conditions for consummation of the Reorganization Plan were satisfied or waived, and the Reorganization Plan became effective and was implemented in accordance with its terms. Pursuant to the Reorganization Plan, on the Effective Date, the Company adopted the Incentive Plan which authorizes the issuance of up to 1,000,000 shares of Common Stock to the Company's employees, officers, directors and other individuals providing services to the Company or its affiliates pursuant to options, stock appreciation rights, restricted stock units, restricted stock, performance awards, dividend equivalent rights and other stock based awards, as well as cash based awards. On October 23, 2014, the Board of Directors of the Company approved the filing of this Registration Statement on Form S-8 to register the 1,000,000 shares of Common Stock which may be offered or sold to participants under the Incentive Plan.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information called for in Part I of Form S-8 is not required to be filed with this Registration Statement.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The Company filed the following documents with the Securities and Exchange Commission (the "Commission") which are hereby incorporated by reference in this Registration Statement:

- 1. The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the Commission on March 31, 2014, as amended by the Company's Amendment No. 1 on Form 10-K/A, filed with the Commission on April 30, 2014.
- 2. The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014, June 30, 2014 and September 30, 2014 filed with the Commission on May 15, 2014, August 13, 2014 and November 14, 2014, respectively;
- 3. The Company's Current Reports on Form 8-K filed on January 9, 2014, January 29, 2014, February 18, 2014, March 5, 2014, May 2, 2014, June 4, 2014, June 20, 2014, June 23, 2014, June 30, 2014 (accepted at 6:18 a.m. ET), July 14, 2014, July 31, 2014, August 4, 2014, August 18, 2014, August 21, 2014, September 5, 2014, September 26, 2014, September 30, 2014 and October 1, 2014; and
- 4. The description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A filed on September 30, 2014.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this registration statement and prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be part of this Registration Statement from the date of the filing of such documents, except as to any portion of any Current Report furnished under Items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this Registration Statement is deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any subsequently

filed document which also is or is deemed to be incorporated by reference in this Registration Statement modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information filed under Items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 6. Indemnification of Directors and Officers

Section 145 of the General Corporation Law of the State of Delaware (the "DGCL") empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise. The indemnity may include expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful.

A Delaware corporation may indemnify directors, officers, employees and other agents of such corporation in an action by or in the right of the corporation under the same conditions, except that no indemnification shall be made if such person is adjudged to be liable to the corporation unless, and only to the extent that, a court determines that such person fairly and reasonably is entitled to indemnity for expenses the court deems proper in light of liability adjudication.

Where a director, officer, employee or agent of the corporation is successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in this Item 6 or in defense of any claim, issue or matter herein, the corporation must indemnify such person against the expenses (including attorney's fees) which he or she actually and reasonably incurred in connection therewith.

Both the Company's Second Amended and Restated Bylaws and Amended and Restated Certificate of Incorporation require the Company to indemnify each of its directors and officers to the fullest extent permitted by law, subject to certain exceptions, in connection with any actual or threatened action or proceeding arising out of his or her service to the Company or to other organizations at the Company's request. As permitted by Section 102(b)(7) of the DGCL, the Company's Certificate of Incorporation also contains a provision eliminating the personal liability of a director to the Company or its shareholders for monetary damages for breach of fiduciary duty as a director, subject to certain exceptions.

In addition to indemnification provided for in the Company's Certificate of Incorporation and Bylaws, the Company has entered into indemnification agreements with its directors and executive officers. The Company intends to enter into indemnification agreements with any new directors and executive officers in the future. In addition, the Company maintains directors' and officers' liability insurance.

 Item 8.
 Exhibits.

 Exhibit Number
 Description

 3.1
 Amended and Restated Certificate of Incorporation of Centrus Energy Corp. (incorporated by reference to Exhibit 3.1 of the Company's Registration Statement on Form 8-A, filed with the Commission on September 30, 2014).

 3.2
 Second Amended and Restated Bylaws of Centrus Energy Corp. (incorporated by reference to Exhibit 3.2 of the Company's Registration Statement on Form 8-A, filed with the Commission on September 30, 2014).

- 5.1 Opinion of Latham & Watkins LLP.
- 23.1 Consent of Latham & Watkins LLP (included in Exhibit 5.1).
- 23.2 Consent of Independent Registered Public Accounting Firm.
- 24.1 Power of Attorney (included on the signature page of this Registration Statement).
- 99.1 Centrus Energy Corp. 2014 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the Commission on September 30, 2014).

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent posteffective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, *however*, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment 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.
- (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 of 1933, each filing of the registrant's annual report pursuant to section 13(a) or

section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) 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.

(h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange 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.

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 Bethesda, Maryland, on November 21, 2014.

CENTRUS ENERGY CORP.

By: /s/ John C. Barpoulis

John C. Barpoulis Senior Vice President and Chief Financial Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints jointly and severally, John R. Castellano, John C. Barpoulis and Peter B. Saba and each of them, his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8 (including post-effective amendments) and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons on behalf of the registrant and in the capacities indicated on November 21, 2014.

Signature	Title
/s/ John R. Castellano John R. Castellano	Interim President and Chief Executive Officer (Principal Executive Officer)
/s/ John C. Barpoulis John C. Barpoulis	Senior Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ J. Tracy Mey J. Tracy Mey	Vice President and Chief Accounting Officer (Principal Accounting Officer)
/s/ Mikel H. Williams Mikel H. Williams	Chairman of the Board of Directors
/s/ Michael Diament Michael Diament	Director
/s/ Osbert Hood Osbert Hood	Director
/s/ W. Thomas Jagodinski W. Thomas Jagodinski	Director

SignatureTitle/s/ Patricia J. JamiesonDirectorPatricia J. JamiesonDirector/s/ Suleman E. LunatDirectorSuleman E. LunatDirector/s/ William J. MadiaDirectorWilliam J. MadiaDirector/s/ Michael P. MorrellDirector/s/ Hiroshi SakamotoDirector

/s/ Hiroshi Sakamoto Hiroshi Sakamoto

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FIRM / AFFILIATE OFFICES Abu Dhabi Milan Barcelona Moscow Beijing Munich New Jersey Boston Brussels New York Chicago Orange County Doha Paris Riyadh Dubai Düsseldorf Rome Frankfurt San Diego San Francisco Hamburg Hong Kong Shanghai Silicon Valley Houston London Singapore Los Angeles Tokyo Washington, D.C. Madrid

November 21, 2014

Centrus Energy Corp Two Democracy Center 6903 Rockledge Drive Bethesda, MD 20817 Attention: Peter B. Saba

Re: Registration Statement No. 333-[]; 1,000,000 shares of Class A Common Stock, \$0.10 par value per share

Ladies and Gentlemen:

We have acted as special counsel to Centrus Energy Corp., a Delaware corporation (the "<u>Company</u>"), in connection with the proposed issuance of up to 1,000,000 shares of Class A common stock, \$0.10 par value per share (the "<u>Shares</u>"). The Shares are issuable under the Centrus Energy Corp. 2014 Equity Incentive Plan (the "<u>Plan</u>"), pursuant to a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "<u>Act</u>"), filed with the Securities and Exchange Commission (the "<u>Commission</u>") on November 21, 2014 (Registration No. 333-[___]) (the "<u>Registration Statement</u>"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the recipient, and the Shares have been issued by the Company for legal consideration in excess of par value in the circumstances contemplated by the Plan, assuming in each case that the individual grants or awards under the

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Plan are duly authorized by all necessary corporate action and duly granted or awarded and exercised in accordance with the requirements of law and the Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 31, 2014 relating to the financial statements and effectiveness of internal control over financial reporting, which appears in Centrus Energy Corp's (formerly USEC, Inc.) Annual Report on Form 10-K for the year ended December 31, 2013.

/s/ PricewaterhouseCoopers LLP

Baltimore, Maryland November 21, 2014