

As filed with the Securities and Exchange Commission on May __, 2014
Registration No. 333-182000

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

FORM S-8

(POST-EFFECTIVE AMENDMENT NO. 1)

REGISTRATION STATEMENT UNDER THE
SECURITIES ACT OF 1933

USEC INC.

(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation)

52-2107911
(I.R.S. Employer Identification No.)

**2 Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817**

(Address of Principal Executive Offices)(Zip Code)

USEC Savings Program
(Full title of the plan)

John C. Barpoulis
Senior Vice President and Chief Financial Officer
USEC Inc.

**2 Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817**

(Name and address of agent for service)

(301) 564-3200

(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. (Check one):

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>

(Do not check if a smaller reporting company)

EXPLANATORY NOTE

Effective as of April 24, 2013, USEC Inc.'s ("USEC") common stock, par value \$.10 per share, is not an investment option under the USEC Savings Program. A total of 360,813 shares (9,020,339 shares prior to the reverse stock split of 1-for-25 shares approved by shareholders as reported on Form 8-K dated June 27, 2013) of USEC common stock are registered on this registration statement in connection with the USEC Savings Program and remain unissued as of the date hereof. As registration of such shares of USEC common stock is no longer required, USEC, by means of this post-effective amendment, hereby removes from registration such shares.

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 Post-Effective Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bethesda, State of Maryland, on this 7th day of May, 2014. No other person is required to sign this Post-Effective Amendment in reliance upon Rule 478 under the Securities Act of 1933.

USEC INC.

By: /s/ Peter B. Saba
 Peter B. Saba
 Senior Vice President, General Counsel,
 Chief Compliance Officer and Corporate Secretary