UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 26, 2012

USEC Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) **1-14287** (Commission File Number) **52-2107911** (I.R.S. Employer Identification No.)

2 Democracy Center 6903 Rockledge Drive Bethesda, MD 20817 (301) 564-3200

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On July 26, 2012, Dr. Joyce F. Brown resigned as a member of the Board of Directors of USEC Inc. in order to devote more time to her other professional commitments. Dr. Brown has been a director since 1998.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

USEC Inc.

July 26, 2012

By:

/s/ John C. Barpoulis John C. Barpoulis Senior Vice President and Chief Financial Officer (Principal Financial Officer)