

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

FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS AND SIMILAR PLANS PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2010

OR

TRANSITION REPORT PURSUANT TO SECTION 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-14287

USEC Savings Program
(Full title of the plan)

USEC Inc.
Two Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817
(301) 564-3200

(Name of issuer of the securities held pursuant to the plan and the address of its principal executive office)

USEC Savings Program

Financial Statements

December 31, 2010 and 2009

(with Report of Independent Registered Public Accounting Firm)

USEC Savings Program

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Report of Independent Registered Public Accounting Firm

To the Benefit Plan Administrative Committee, the Benefit Plan Investment Committee and Participants of the USEC Savings Program:

We have audited the accompanying statements of net assets available for benefits of the USEC Savings Program (the "Plan") as of December 31, 2010 and 2009, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2010 and 2009, and the changes in net assets available for benefits for the years then ended in conformity with U.S. GAAP.

Our audit was performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Clark, Schaefer, Hackett & Co.

Cincinnati, Ohio
June 23, 2011

USEC Savings Program

Statements of Net Assets Available for Benefits

In thousands

	December 31,	
	2010	2009
Assets:		
Investments at fair value	\$ 327,708	\$ 299,045
Participant loans receivable	5,713	5,207
Net assets available for benefits at fair value	333,421	304,252
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(1,252)	1,591
Net assets available for benefits	\$ 332,169	\$ 305,843

The accompanying notes are an integral part of these financial statements.

USEC Savings Program

Statements of Changes in Net Assets Available for Benefits

In thousands

	Years Ended December 31,	
	2010	2009
Changes in net assets:		
Interest and dividends	\$ 5,496	\$ 5,334
Net appreciation in fair value of investments	22,920	35,183
Contributions:		
Participants	19,127	19,430
Employer	8,050	7,908
Distributions to participants	(29,233)	(16,503)
Administrative expenses	(34)	(44)
Net increase	26,326	51,308
Net assets available for benefits, beginning of year	305,843	254,535
Net assets available for benefits, end of year	\$ 332,169	\$ 305,843

The accompanying notes are an integral part of these financial statements.

USEC Savings Program

Notes to Financial Statements

1. Plan description:

The following description of the USEC Savings Program (the Plan) provides only general information. Plan participants should refer to the Plan document for a more complete description of the Plan's provisions.

General

The Plan is a defined contribution plan subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA). The Plan is administered by USEC Inc. (the Company or Sponsor) through a plan administrator. USEC Inc. and its wholly owned subsidiary, United States Enrichment Corporation (together USEC), are participating employers. The USEC Benefit Plan Administrative and Investment Committees monitor and oversee administration of the Plan. Fidelity Management Trust Company (the Trustee or FMTC) acts as Trustee and recordkeeper.

Eligibility

An eligible employee is an employee that is paid, employed and reported on the payroll and personnel records of USEC as an employee. An eligible employee may participate in the Plan after one hour of service.

Contributions

Participants may contribute between 1% and 50% of eligible compensation in 0.5% increments up to the maximum annual amount allowed under the Internal Revenue Code. Participants may elect either before-tax contributions, after-tax contributions or a combination of both. With certain exceptions, new employees are automatically enrolled in the Plan at a default contribution level of either 5% or 6% of eligible compensation (depending on the class of employee) unless they make an affirmative election to make contributions at a specified percentage (including zero).

Employees who are eligible to participate in a company pension plan, and elect to do so, receive the Basic Matching Contribution. For each payroll period, USEC provides a 100% matching contribution for the first 3% of each participant's eligible earnings and a 50% matching contribution for the next 2%. The maximum Basic Matching Contribution is 4% of eligible earnings.

Employees who are not eligible to participate in a company pension plan, or eligible employees who elect not to participate in a company pension plan, receive the Enhanced Matching Contribution. For each payroll period, USEC provides a 200% matching contribution for the first 2% of the participant's eligible earnings, plus a 100% matching contribution for the next 2% and a 50% matching contribution for the next 2%. The maximum Enhanced Matching Contribution is 7% of eligible earnings.

Effective March 15, 2010, certain employees who are not eligible to participate in a company pension plan and are covered by a collective bargaining agreement between United States Enrichment Corporation and the United Steel Workers, AFL-CIO and its Local 689 receive an Enhanced Matching Contribution that covers certain overtime earnings with a maximum Company matching contribution equal to 7% of eligible earnings (excluding eligible overtime earnings) and 3% of eligible overtime earnings.

The Plan accepts rollover contributions from other qualified plans.

Participant accounts and loans

Each participant's account is credited with the participant's and employer's matching contributions, and the respective investment earnings (losses) of the individual funds. Participants may borrow from the Plan in any amount of at least \$1,000 but less than 50% of the participant's vested account balance. A participant cannot borrow more than \$50,000. Loan terms originated under the Plan are for a period not to exceed five years, except for loans taken for the purchase of a primary residence (home loans), which may have terms up to 15 years. Loans are secured by the balance in the participant's account and bear a rate of interest at the prime lending rate plus one percentage point, subject to usury limits, at the date of loan origination with no refinancing option. Principal and interest on the loans are repaid in substantially level installments. Prepayment in full is allowed at any time. As of December 31, 2010, interest rates on outstanding loans ranged from 4.25% to 10.5%.

Administrative Expenses

Certain expenses of maintaining the Plan are paid by USEC.

Vesting

Participants are immediately vested in their contributions and associated earnings (losses). Plan vesting in the participating employer's matching contributions and associated earnings (losses) is based on years of credited service to USEC, as follows:

Years of credited service	Percentage
Less than 2	0%
2	50%
3	100%

Forfeitures

Forfeitures are employer contributions retained by the Plan when a participant separates from USEC prior to vesting and are used to reduce current or future employer matching contributions. Participant departures prior to vesting resulted in forfeitures of \$108,545 in 2010 and \$69,255 in 2009. In 2010 and 2009, employer contributions were reduced by \$131,832 and \$24,913, respectively, from forfeitures of non-vested accounts. At December 31, 2010 and 2009, forfeitures available to reduce future contributions were \$16,031 and \$38,624, respectively.

Investment options

Participants direct FMTC to invest their contributions, the participating employer's matching contributions and associated earnings (losses) among various investment options. At December 31, 2010, investment options consist of 26 mutual funds, the USEC Stock Fund and a managed fund of short-term bonds and other fixed income securities (Fidelity Managed Income Portfolio II or MIP II). Participant contributions to the USEC Stock Fund are limited to 20% of a participant's total contributions and participants are restricted from making additional contributions into the USEC Stock Fund if the balance in their USEC Stock Fund account exceeds 20% of their total account value.

Participants may, subject to the USEC Stock Fund restriction, make changes and exchanges among the investment options at any time by contacting FMTC directly.

Distributions

Upon termination of service (other than by death) at a time when a participant (1) has reached normal retirement age (age 65), (2) has reached age 50 with 10 years of credited service, (3) is disabled or (4) is eligible for total and permanent disability benefits under a USEC long-term disability plan, a participant may elect to receive (a) a lump sum amount equal to the value of the participant's vested interest in his or her account, (b) monthly installments over a fixed number of years or over life expectancy or (c) a series of partial payments. If a participant dies before the entire vested portion of the account is distributed, the remaining vested portion of the account is payable to a beneficiary. Upon termination of service (other than by death) before a participant (1) has reached normal retirement age (age 65), (2) has reached age 50 with 10 years of credited service, (3) is disabled or (4) is eligible for total and permanent disability benefits under a USEC long-term disability plan, upon request, the vested portion of a participant's account may be paid as a lump sum. The amount of any payment from a participant's account is reduced to satisfy income tax withholding requirements, unless the balance is rolled over to a qualifying plan or other tax-exempt option.

Participants may make hardship withdrawals from their contributions under certain circumstances allowed by the Plan.

Plan termination

Although USEC has not expressed any intent to do so, USEC has the right to discontinue its contributions at any time and to terminate the Plan, subject to applicable law and its obligations under its existing collective bargaining agreements. In the event of Plan termination, participants will become 100% vested in participating employer matching contributions and associated earnings (losses).

2. Summary of significant accounting policies:

Basis of accounting

The financial statements of the Plan are prepared based on the accrual method of accounting. Distributions to participants are recorded on the cash basis.

Investment contracts held by a defined contribution plan are required to be reported at fair value, in accordance with financial accounting standards. However, contract value is the relevant measurement attributed for that portion of the net assets available for benefits of a defined contribution plan attributable to fully benefit-responsive investment contracts, since the contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the Plan. As required by financial accounting standards, the Statements of Net Assets Available for Benefits present the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The Statements of Changes in Net Assets Available for Benefits are prepared on a contract value basis.

Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Plan's management to make estimates and assumptions that affect the reported amounts of assets and liabilities. Actual results could differ from those estimates.

Investment valuation and income recognition

The Plan's investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Purchases and sales of securities are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date.

In January 2010, the Plan replaced the USEC Stable Value Fund (USVF) with the Managed Income Portfolio II (MIP II), a collective trust managed by FMTC. Since the only investment in the USVF was the MIP II, there was no change to the investment objective. The objective of the MIP II is to seek the preservation of capital and to provide a competitive level of income over time that is consistent with the preservation of capital. To achieve its investment objective, the MIP II invests in assets such as fixed-income securities or bond funds and may include derivative instruments such as futures contracts and swap agreements. The MIP II also invests in "wrapper" contracts issued by third-parties and cash equivalents represented by shares in a money market fund. These "wrapper" contracts are immaterial to the financial statements of the Plan. The Plan's interest in the collective trust is based on the fair value of the collective trust's underlying investments as based on information reported by the investment advisor using the audited financial statements of the collective trust at year end.

Underlying assets of the MIP II are valued at most recent bid prices (sales prices if the principal market for the security is an exchange) if quotations are readily available. Shares of mutual funds are valued at the net asset value of shares held by the Plan at year end. The Statements of Changes in Net Assets Available for Benefits reports the net appreciation or depreciation in the fair value of investments, which consists of the realized gains or losses and the unrealized appreciation or depreciation on those investments, except that the net appreciation or depreciation in the MIP II is reported on a contract value basis.

Participant loans receivable

Participant loans are valued at their unpaid principal balance plus any accrued but unpaid interest. Delinquent participant loans are reclassified as distributions based upon the terms of the plan document.

3. Investments:

The following table presents investments at December 31, 2010 and 2009 that represent 5% or more of the Plan's net assets (in thousands):

	December 31,	
	2010	2009
Fidelity Managed Income Portfolio II – Class 2, at fair value	\$ 126,804	\$ ---
USEC Stable Value Fund, at fair value	---	126,758
American Funds – The Growth Fund of America - Class R5, 828,384 and 902,043 shares, respectively	25,175	24,608
Fidelity US Bond Index Fund – 1,828,653 and 1,398,965 shares, respectively	20,719	15,473
American Funds – Investment Company of America - Class R5, 675,664 and 737,315 shares, respectively	19,020	19,126
Total individual investments that represent 5% or more of the Plan's net assets	191,718	185,965
Other investments and participant loans receivable	141,703	118,287
Total net assets available for benefits at fair value	\$ 333,421	\$ 304,252

Components of the net appreciation in value of investments for the years ended December 31, 2010 and 2009 are as follows (in thousands):

	2010	2009
Mutual funds	\$ 20,945	\$ 35,325
USEC Inc. common stock	1,975	(142)
Net appreciation	\$ 22,920	\$ 35,183

4. Fair value measurements:

Financial accounting standards provide the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy are described as follows:

Level 1: Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2: Inputs to the valuation methodology include:

- quoted prices for similar assets and liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2010 and 2009.

Level 1 of the valuation hierarchy includes mutual funds for which the Net Asset Value (NAV) and share price, respectively, are quoted in active markets. Mutual funds are public investment instruments valued using the NAV provided by the administrator of the fund. The NAV is based on the underlying assets owned by the fund, minus its liabilities, divided by the number of shares outstanding.

Level 2 of the valuation hierarchy includes investments in a collective trust fund and a common stock fund. The NAVs of these investments are provided by administrators of the funds. The collective trust fund is a public investment vehicle with a NAV quoted in a private market. The common stock fund invests in USEC Inc. common stock and an amount of short-term investments to facilitate liquidity for investors. The NAV for each fund is based on the underlying assets owned by the fund, less any expenses accrued against the fund, divided by the number of fund shares outstanding. Investments in these funds are classified within level 2 of the valuation hierarchy because the NAV's unit price is not quoted in an active market; however, the unit price is based on underlying investments which are traded in an active market.

Following are the Plan investments as of December 31, 2010 and 2009 categorized by the fair value hierarchy levels described above (in thousands):

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
December 31, 2010				
Mutual funds:				
Equity/stock funds	\$ 150,154	\$ ---	\$ ---	\$ 150,154
Target date/allocation funds	25,143	---	---	25,143
Bond/fixed income funds	20,719	---	---	20,719
Collective trust fund	---	126,804	---	126,804
Company stock fund	---	4,888	---	4,888
Total investments, at fair value	<u>\$ 196,016</u>	<u>\$ 131,692</u>	<u>\$ ---</u>	<u>\$ 327,708</u>
December 31, 2009				
Mutual funds:				
Equity/stock funds	\$ 134,217	\$ ---	\$ ---	\$ 134,217
Target date/allocation funds	19,353	---	---	19,353
Bond/fixed income funds	15,473	---	---	15,473
Collective trust fund	---	126,758	---	126,758
Company stock fund	---	3,244	---	3,244
Total investments, at fair value	<u>\$ 169,043</u>	<u>\$ 130,002</u>	<u>\$ ---</u>	<u>\$ 299,045</u>

5. Tax status:

The Plan has received a determination letter, dated March 19, 2008, from the Internal Revenue Service (IRS) that the Plan is qualified to be exempt from federal income taxes under certain provisions of the Internal Revenue Code. Pursuant to such provisions, participants are not subject to federal income taxes on their contributions to the Plan, on participating employer contributions to the Plan, or on income accruing to their accounts, until such time as they receive distributions from the Plan. Although the Plan has been amended since receiving the determination letter, the plan administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Internal Revenue Code.

Accounting principles generally accepted in the United States of America require plan management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the Internal Revenue Service. The plan administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2010, there are no uncertain positions taken or expected to be taken that would require recognition of a liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The IRS examined the Plan's 2008 annual return, with no adjustments. The Plan's open audit periods are the years ended December 31, 2007 and 2009. The Plan believes its estimates are appropriate based on current facts and circumstances.

6. Party-in-interest transactions:

Certain Plan investments are shares of mutual funds managed by FMTC. FMTC is the Trustee as defined by the Plan, and these transactions qualify as party-in-interest transactions.

Certain expenses of the Plan are paid by USEC to Fidelity, except participant loan costs and fund investment management expenses that are paid by the participant, and amounted to \$5,425 in 2010 and \$4,250 in 2009.

USEC as a participating employer is a related party. Related party values as of and for the years ended December 31, 2010 and 2009 are as follows (in thousands):

	December 31,	
	2010	2009
Shares of USEC Inc. common stock held by the Plan	791	822
Fair value of USEC Inc. common stock held by the Plan	\$ 4,761	\$ 3,164
Purchases of USEC Inc. common stock by the Plan	\$ 3,182	\$ 2,638
Sales of USEC Inc. common stock by the Plan	\$ 3,486	\$ 3,424

7. Risks and Uncertainties:

The Plan provides for investments in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statement of Net Assets Available for Benefits.

8. Reconciliation to Form 5500:

Net assets available for benefits are reported at fair value on Form 5500. The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500 as of December 31, 2010 and 2009 (in thousands):

	December 31,	
	2010	2009
Net assets available for benefits per the financial statements	\$ 332,169	\$ 305,843
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	1,252	(1,591)
Net assets available for benefits per Form 5500	\$ 333,421	\$ 304,252

The following is a reconciliation of the changes in net assets per the financial statements to the Form 5500 for the years ended December 31, 2010 and 2009 (in thousands):

	December 31,	
	2010	2009
Net increase in net assets available for benefits per the financial statements	\$ 26,326	\$ 51,308
Net change in fair value adjustment of fully benefit-responsive investment contracts	2,843	3,338
Net increase in net assets available for benefits per Form 5500	\$ 29,169	\$ 54,646

9. Subsequent events

As a result of the expiration of the Company's contract with the U.S. Department of Energy to maintain and prepare the Portsmouth gaseous diffusion plant for decontamination and decommissioning (D&D), and the related transfer of certain employees at its Portsmouth, Ohio location to the D&D contractor for the Portsmouth site, USEC has determined that a partial termination of the Plan occurred in 2011. Terminated plan participants became fully vested in their accounts upon termination of employment with USEC and will no longer be eligible to participate in the Plan. Terminated plan participants who were transferred to the D&D contractor but continue to perform services for USEC pursuant to an agreement between USEC and the D&D contractor will not be eligible to receive a distribution from the Plan until the earlier of the date they stop performing services for USEC or terminate employment with the D&D contractor. The Plan was amended during 2011 to reflect these changes.

Effective January 1, 2011, the Plan was amended to allow for certain employees who are covered by a collective bargaining agreement between United States Enrichment Corporation and the United Steel Workers, AFL-CIO and its Local 550 and are hired after January 1, 2011 and not eligible to participate in a company pension plan to receive an Enhanced Matching Contribution of up to 7% of eligible earnings.

Form 5500 Schedule H, Line 4(i) - Schedule of Assets (Held at End of Year)

As of December 31, 2010

In Thousands

(a)	(b) Issuer	(c) Description of asset	(e) Current value
	American Funds – Investment Company of America – Class R5	Growth and Income Mutual Fund	\$ 19,020
	American Funds – New Perspective Fund – Class R5	Growth Mutual Fund that Invests Globally	14,948
	American Funds – The Growth Fund of America – Class R5	Growth Mutual Fund	25,175
	Davis NY Venture Fund – Class Y	Growth Mutual Fund	13,067
	* Fidelity Contrafund – Class K	Growth Mutual Fund	15,538
	* Fidelity Diversified International Fund – Class K	Growth Mutual Fund that Invests Internationally	10,951
	* Fidelity Freedom 2000 Fund	Asset Allocation Mutual Fund	672
	* Fidelity Freedom 2005 Fund	Asset Allocation Mutual Fund	246
	* Fidelity Freedom 2010 Fund	Asset Allocation Mutual Fund	4,542
	* Fidelity Freedom 2015 Fund	Asset Allocation Mutual Fund	2,819
	* Fidelity Freedom 2020 Fund	Asset Allocation Mutual Fund	8,248
	* Fidelity Freedom 2025 Fund	Asset Allocation Mutual Fund	1,264
	* Fidelity Freedom 2030 Fund	Asset Allocation Mutual Fund	3,294
	* Fidelity Freedom 2035 Fund	Asset Allocation Mutual Fund	650
	* Fidelity Freedom 2040 Fund	Asset Allocation Mutual Fund	1,707
	* Fidelity Freedom 2045 Fund	Asset Allocation Mutual Fund	631
	* Fidelity Freedom 2050 Fund	Asset Allocation Mutual Fund	376
	* Fidelity Freedom Income Fund	Asset Allocation Mutual Fund	694
	* Fidelity Growth Company Fund – Class K	Growth Mutual Fund	9,407
	* Fidelity Managed Income Portfolio II – Class 2	Commingled Pool of the Fidelity Group Trust for Employee Benefit Plans - at fair value	126,804
	* Fidelity US Bond Index Fund	Income Mutual Fund	20,719
	Goldman Sachs – Mid Cap Value Fund Institutional Class	Growth Mutual Fund	4,939
	MFS Value Fund – Class R4	Growth Mutual Fund	441
	Morgan Stanley Institutional Mid Cap Growth Fund Class I	Growth Mutual Fund	14,079
	Royce Pennsylvania Mutual Fund – Investment Class	Small Company Mutual Fund	9,189
	* Spartan Extended Market Index Fund – Investor Class	Index Mutual Fund	3,024
	* Spartan 500 Index – Investor Class	Index Mutual Fund	10,376
	* USEC Stock Fund	Company stock fund for USEC Inc.	4,888
	* Participant Loans	Interest rates 4.25% to 10.5% maturing through 2025	5,713
		Total Current Value	\$ 333,421

* Indicates a party-in-interest to the Plan.

Column (d) – Cost is not required since the investments are participant directed.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

USEC Savings Program

June 23, 2011

By /s/ W. Lance Wright
W. Lance Wright
USEC Inc.
Chairman
USEC Inc. Benefit Plan Administrative Committee

EXHIBIT INDEX

**Exhibit
Number**

Description

23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement of USEC Inc. on Form S-8 (No. 333-129410 effective November 2, 2005) of our report dated June 23, 2011, accompanying the financial statements and supplemental information included in the Annual Report of USEC Savings Program on Form 11-K for the year ended December 31, 2010.

/s/ Clark, Schaefer, Hackett & Co.

Cincinnati, Ohio
June 23, 2011