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

FORM 11-K

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

For the fiscal year ended December 31, 2005

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.
2 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 and Supplemental Schedule

As of December 31, 2005 and 2004

Together with Report of Independent Registered Public Accounting Firm

USEC Savings Program

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Schedules omitted because there were no such items:

For the year ended December 31, 2005:

- Reportable transactions
 - Nonexempt transactions
 - Leases in default or classified as uncollectible
 - Loans or fixed-income obligations in default
-

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, 2005 and 2004, 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. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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, 2005 and 2004, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were 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 audits 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/ Grant Thornton LLP

Baltimore, Maryland
June 20, 2006

USEC Savings Program
Statements of Net Assets Available for Benefits

In thousands

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
Assets:		
Investments at fair value	\$ 258,435	\$ 238,403
Participant loans receivable	4,925	4,773
Liabilities:		
Excess contributions due to participants	—	(47)
Net assets available for benefits	<u>\$ 263,360</u>	<u>\$ 243,129</u>

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,	
	2005	2004
Changes in net assets:		
Interest and dividends	\$ 8,516	\$ 6,557
Net appreciation in fair value of investments	6,843	10,586
Contributions:		
Participants	15,625	14,452
USEC	5,775	5,506
Distributions to participants	(16,508)	(9,819)
Administrative expenses	(20)	(18)
Net increase	20,231	27,264
Net assets available for benefits, beginning of year	243,129	215,865
Net assets available for benefits, end of year	<u>\$ 263,360</u>	<u>\$ 243,129</u>

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. 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 percent and 50 percent of eligible compensation in .5 percent 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. For each payroll period, USEC provides a 100 percent matching contribution for the first 3 percent of each participant's eligible earnings and a 50 percent matching contribution for the next 2 percent. Effective January 1, 2005, for certain employees not covered by a company pension plan, USEC provides a 200 percent matching contribution for the first 2 percent of the participant's eligible earnings, plus a 100 percent matching contribution for the next 2 percent and a 50 percent matching contribution for the next 2 percent. 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 percent of the participant's vested account balance. In no event can a participant 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, 2005, interest rates on outstanding loans ranged from 5.0 percent to 10.5 percent.

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:

<u>Years of credited service</u>	<u>Percentage</u>
Less than 2	0 percent
2	50 percent
3	100 percent

Vesting requirements under the United States Enrichment Corporation Savings Program were 100% after three years of service and 0% for any term less than three years. Beginning January 1, 2004, employees of United States Enrichment Corporation who participate in a collectively bargained group are eligible to participate in the Plan. The vesting requirements of the United States Enrichment Corporation Savings Program remain in effect for matching contributions and associated earnings (losses) prior to January 1, 2004. Thereafter, vesting requirements for employer matching contributions and associated earnings (losses) are governed by the Plan.

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 \$46,889 in 2005 and \$30,047 in 2004. At December 31, 2005 and 2004, forfeitures available to reduce future contributions were \$94,063 and \$44,666, 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, 2005, investment options consist of 19 mutual funds, the USEC Inc. Stock Fund and a managed fund of short-term bonds and other fixed income securities (the USEC Stable Value Fund). Effective January 1, 2006 the Plan was amended to limit a participant's contributions that can be made to the USEC Stock Fund to 20 percent of their total contributions and to restrict participants 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 at a time when a participant is eligible for an immediate pension under a USEC defined benefit plan or 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 is eligible for an immediate pension under a USEC defined benefit plan or 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. In the event of Plan termination, participants will become 100 percent vested in participating employer matching contributions and associated earnings.

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 valuation and income recognition

The Plan's investments are stated at fair value, based on quoted closing market prices, except for the Stable Value Fund which seeks to maintain a stable \$1 unit price. Participant loans are valued at cost, which approximates fair value. The average yield for the Stable Value Fund was 3.83 percent as of December 31, 2005 and 3.82 percent as of December 31, 2004.

Capital gains or losses, interest and dividend income are recognized according to the schedules maintained by the mutual funds. Gains or losses on the fixed income securities in the Stable Value Fund are recognized over time by adjusting the interest rate credited to the portfolio. 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.

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.

3. Investments:

The following table presents investments at December 31, 2005 and 2004 that represent 5 percent or more of the Plan's net assets (in thousands):

	<u>2005</u>	<u>2004</u>
USEC Stable Value Fund — Fidelity Managed Income Portfolio II	\$ 111,066	\$ 107,058
American Funds — Growth Fund of America, 935,956 and 956,649 shares, respectively	28,874	26,183
Fidelity Dividend Growth Fund, 601,210 and 644,461 shares, respectively	17,309	18,361
Weitz Partners Value Fund, 641,593 and 708,961 shares, respectively	14,609	16,944
Total individual investments that represent 5 percent or more of the Plan's net assets	171,858	168,546
Other investments	86,577	69,857
Total investments	<u>\$ 258,435</u>	<u>\$ 238,403</u>

Components of the net appreciation in fair value of investments for the years ended December 31, 2005 and 2004 are as follows (in thousands):

	<u>2005</u>	<u>2004</u>
Registered investment companies	\$ 6,877	\$ 10,383
USEC Inc. common stock	(34)	203
Net appreciation	<u>\$ 6,843</u>	<u>\$ 10,586</u>

The Plan provides for investments in various forms of mutual funds, common stock and a managed fund of short-term bonds and other fixed income securities. In general, investments are exposed to various risks, such as interest rate, credit, and overall market volatility risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that material changes in the values of investment securities will occur.

4. Tax status:

The Plan has received a determination letter, dated February 15, 2002, from the Internal Revenue Service 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.

5. Related-party 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 \$4,500 and \$24,631 in 2005 and 2004, respectively.

USEC as a participating employer is a related party. Related party values as of and for the years ended December 31, 2005 and 2004 are as follows (in thousands):

	<u>2005</u>	<u>2004</u>
Shares of USEC Inc. common stock held by the Plan	158	75
Fair value of USEC Inc. common stock held by the Plan	\$1,884	\$ 729
Purchases of USEC Inc. common stock by the Plan	\$4,699	\$2,263
Sales of USEC Inc. common stock by the Plan	\$3,415	\$2,100

**USEC Savings Program, Plan Number 001
Schedule of Assets (Held at End of Year)**

**As of December 31, 2005
(In Thousands)**

ERISA Form 5500 Schedule H, line 4(i)

Issuer	Description of asset	Current value
USEC Stable Value Fund — Fidelity Managed Income Portfolio II*	Commingled Pool of the Fidelity Group Trust for Employee Benefit Plans	\$ 111,066
Morgan Stanley Institutional Fund Trust: Midcap Growth Portfolio — Institutional Class	Growth-Oriented Stock Mutual Fund	4,292
Weitz Partners Value Fund	Value Mutual Fund	14,609
American Funds — Growth Fund of America — Class R5	Domestic Equity Mutual Fund	28,874
American Funds — Investment Company of America — Class R5	Domestic Equity Mutual Fund	12,022
American Funds — New Perspective Fund — Class R5	Growth Mutual Fund that Invests Globally	11,410
Royce Pennsylvania Mutual Fund — Investment Class	Growth Mutual Fund	6,884
USEC Stock Fund*	Company stock fund for USEC Inc.	1,929
Fidelity Contrafund*	Growth Mutual Fund	9,221
Fidelity Growth Company Fund*	Growth Mutual Fund	4,703
Fidelity Diversified International Fund*	Growth Mutual Fund that Invests Internationally	6,843
Fidelity Dividend Growth Fund*	Growth Mutual Fund	17,309
Fidelity Freedom Income Fund*	Asset Allocation Mutual Fund	231
Fidelity Freedom 2000 Fund*	Asset Allocation Mutual Fund	580
Fidelity Freedom 2010 Fund*	Asset Allocation Mutual Fund	3,778
Fidelity Freedom 2020 Fund*	Asset Allocation Mutual Fund	4,154
Fidelity Freedom 2030 Fund*	Asset Allocation Mutual Fund	831

**USEC Savings Program, Plan Number 001
Schedule of Assets (Held at End of Year)**

**As of December 31, 2005
(Thousands)**

ERISA Form 5500 Schedule H, line 4(i)

Issuer	Description of asset	Current value
Fidelity Freedom 2040 Fund*	Asset Allocation Mutual Fund	390
Fidelity Spartan Extended Market Index Fund*	Index Mutual Fund	1,332
Fidelity Spartan US Equity Index Fund*	Index Mutual Fund	11,328
Fidelity US Bond Index Fund*	Income Mutual Fund	6,649
Participant Loans*	Participant notes at interest rates ranging from 5.0% to 10.5% maturing between 1/2006 and 7/2020	4,925
Total Current Value		<u><u>\$ 263,360</u></u>

* Party-in-interest

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 27, 2006

By _____ /s/ W. Lance Wright

W. Lance Wright

USEC Inc.

Chairman

Benefit Plan Administrative Committee

EXHIBIT INDEX

**Exhibit
Number**
23

Description
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 on Form S-8 (No. 333-129410) of USEC Inc. of our report dated June 20, 2006, relating to the financial statements of the USEC Savings Program, which appears in this Form 11-K for the fiscal year ended December 31, 2005.

/s/ Grant Thornton LLP

Baltimore, Maryland
June 27, 2006