



DIVISION OF
CORPORATION FINANCE
MAIL STOP 7010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

November 29, 2007

Mr. John Barpoulis
Senior Vice President and Chief Financial Officer
2 Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817

Re: USEC, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2006
Filed February 27, 2007
File No. 1-14287

Dear Mr. Barpoulis:

We have reviewed your Form 10-K and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2006

Financial Statements

Note 4 – Inventories, page 91

1. We note your disclosure stating that generally title to uranium provided by customers remains with the customer until delivery of LEU, at which time title to LEU is transferred to the customer, and title to uranium is transferred to USEC.

However, you further explain that delivery of LEU (to fabricators for your customers) occurs in advance of transferring title to your customers. Please address the following points:

- (a) Tell us how the uranium provided to you by the customers (who in turn purchase LEU from you) is valued when you record it as a cost of sale; and indicate to what extent and the manner by which that value is factored into the sale price of LEU.
 - (b) Tell us your rationale for not recording the purchase of the uranium from your customers until title to the LEU held by the fabricators is transferred, given that you must process the uranium before you have a saleable product.
2. We note your disclosure indicating that if the fabricator elects to order less LEU from you than you are required to deliver to your customers, the fabricator may purchase LEU from other sources to satisfy your customer order obligations, which in turn creates an obligation for you to deliver SWU and uranium to the fabricator. We understand this may be satisfied as future bulk deliveries are made. Since your agreement with customers is for the sale of LEU at the fabricators, tell us why you describe the obligation as one that would require you to deliver SWU and uranium, rather than LEU. Please also tell us how you value LEU, SWU and uranium owed to the fabricator; and explain how this compares to the cost you record on the sale of LEU to the customer that you did not provide. Please include details sufficient to understand your basis for any differences in these amounts.

Note 5 – Purchase of Separative Work Units Under Russian Contract, page 92

3. We note your disclosure on page 44 stating that you must transfer to Russia natural uranium equivalent to the natural uranium component of LEU delivered to you. We understand that you utilize some of the uranium you obtain from other customers to satisfy your delivery obligations to TENEX under the Russian contract. However, you indicate that as prices of uranium have increased, your customers have utilized contractual flexibility to deliver lesser quantities of uranium for the same fixed quantity of LEU, thereby causing a mismatch between the amount of uranium that you must transfer to TENEX in exchange for the amount of Russian LEU delivered to you, and the amount of uranium you are able to obtain from other customers in conjunction with the sale of LEU. Please address the following points:
 - (a) Tell us how you reflect the transfer of natural uranium to TENEX in your financial statements; and explain how this arrangement relates to the \$4.6

billion in payments you describe under this heading, and the obligation to pay a total of \$7.6 billion to the Russian Executive Agent through 2013.

- (b) Tell us how you account for the difference between the value of uranium you will need to deliver under the Russian contract, plus the fixed purchase obligation of \$7.6 million, and the value of the SWU component you will acquire. Please include details sufficient to understand your basis and rationale.
- (c) Tell us how you account for the difference between the value of LEU you are required to deliver to your other customers and the uranium they deliver to you, given the contractual flexibility. Please identify the authoritative guidance you have relied upon in establishing your methodology.

Schedule 14A

Filed March 22, 2007

- 4. Please confirm in writing that you will comply with the following comments in all future filings. Provide us also with an example of the disclosure you intend to use. Please understand that after our review of your responses, we may raise additional comments.

Executive Compensation

Compensation Discussion and Analysis

Setting Executive Compensation, page 21

- 5. Describe or identify the “commercially available survey data related to general industry executive compensation” that you use to identify market-median and other market elements related to your compensation program, such as your annual incentive payments.

Elements of Executive Compensation

Total Direct Compensation

Base Salary, page 23

6. Identify the actual performance factors or goals that you consider in setting base salary and discuss whether, for each named executive officer, he or she met such goals. In addition, identify the component companies that make up the market to which you refer. See Item 402(b)(2)(xiv) of Regulation S-K.

Annual Incentive

Performance Measures, page 25

7. In addition to the five enumerated key performance objectives, you state that individual named executive officers had key performance objectives specifically tailored to their areas of responsibility. Specifically identify all of the performance objectives for each named executive officer and discuss more fully how you determine the actual amount of annual incentive awarded for each named executive officer by discussing whether, and the extent to which, he or she met such objectives.

Post-Employment Compensation

Severance Arrangements

Change in Control Agreements, page 30

8. Describe and explain how you determined the appropriate payment and benefit levels under the various circumstances that trigger payments or provision of benefits under the severance and change of control plans. See Item 402(b)(1)(v) and 402(j)(3) of Regulation S-K.

Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under

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the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tracie Towner at (202) 551-3744 or Karl Hiller, Branch Chief, at (202) 551-3686 if you have questions regarding comments on the financial statements and related matters. Please contact Donna Levy at (202) 551-3292 or me at (202) 551-3745 with any other questions.

Sincerely,

H. Roger Schwall
Assistant Director