

**Marvin S. Fertel
Executive Vice President and Chief Nuclear Officer
Nuclear Energy Institute**

**U.S. House of Representatives
House Committee
Committee on Energy and Commerce
Subcommittee on Oversight and Investigations**

**Washington, D.C.
April 3, 2008**

The Nuclear Energy Institute (NEI), on behalf of the nuclear energy industry, appreciates the opportunity to provide this testimony regarding "Selling the Department of Energy's Depleted Uranium Stockpile: Opportunities and Challenges."

NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plants designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry. NEI's members are the commercial entities that have purchased enriched uranium services from the Atomic Energy Commission, the Department of Energy, and from USEC since its inception.

Nuclear energy currently supplies twenty percent of our nation's electricity supply, and is America's largest source of clean-air, carbon-free electricity, producing no greenhouse gases or other air pollutants. Nuclear energy accounts for 71 percent of the nation's clean-air electricity generation. In 2006, U.S. nuclear plants prevented the discharge of 681 million metric tons of carbon dioxide into the atmosphere. This is nearly as much carbon dioxide as is released from all U.S. passenger cars. The industry is committed to maintaining the benefits of nuclear energy to benefit the United States and the world.

Because of the growing need for additional baseload electricity in the United States, nuclear generating companies' have already submitted 9 license applications. We estimate that at least another 5 applications will be made this year. This could result in 15-20 new operating nuclear plants in 2020, an additional 20GW – 25GW of generating capacity.

In addition to the deployment of new enrichment facilities, the increased focus on new nuclear plant deployment in the U.S. and worldwide has also resulted in a significant increase in the price of uranium. Since March 2006 the spot and long-term price for uranium has risen from \$41.00/lb and \$41.00/lb respectively, to \$71.00/lb and \$95.00/lb, respectively, in March 2008. The increase in uranium prices has stimulated planning for expansion of existing mines and major planning for and development of new uranium mines worldwide, including in the U.S. It also provides a meaningful opportunity for the sale of depleted uranium tails from the DOE enrichment program to

entities that see the value of re-enriching them for sale in the uranium market. In this regard, we understand that the current DOE stockpile of depleted tails is about 40 million pounds of U_3O_8 equivalent at greater than 0.3% U_{235} . At projected long-term uranium prices of between \$70/lb and \$90/lb, these tails have a potential value of between \$2.8B and \$3.6B in the commercial market.

Still more lower-assay material may prove economical for re-enriching as well, increasing the potential return to the government. While recognizing that not all of the tails may be readily re-enriched for sale in the commercial market, it seems clear that the market could use some additional supply and that the government could gain significant value by the sale of the tails for re-enrichment, a situation that was not commercially viable as recently as three years ago. NEI surveyed its utility members regarding potential interest in purchasing tails for re-enrichment. Of the fourteen companies that responded, six companies representing 53 generating units indicated that they would or possibly would be interested in such purchases. Eight companies representing 25 units said they would not be interested.

With regard to the definition of a program for the re-enrichment of DOE tails and their sale into the commercial marketplace, we suggest the following characteristics:

- (1) It is likely market conditions will support the re-enrichment of tails and the sale of uranium into the market over a long period of time. However, the

- program should begin as soon as practicable to provide experience with and greater certainty for the commercial market as well as revenue to the government;
- (2) The sale of tails for re-enrichment by a buyer desiring uranium supply, or the sale by DOE of uranium resulting from contracting for re-enrichment services, should be done in a way that does not undermine the deployment of new uranium mines and conversion facilities in the U.S. In this regard, the aggregate disposition of U.S. government surplus nuclear fuel should not exceed 10 percent of the annual demand in the U.S.;
 - (3) Given the limited domestic enrichment capacity between now and the post-2013 time period, government contracting for re-enrichment of tails should avoid adversely affecting enrichment supply to the commercial market;
 - (4) The government should consider auctions for a portion of the tails being re-enriched, but until approximately 2020, should also contract for enrichment services from USEC, for the re-enrichment of tails that will ultimately be sold into the market by DOE;
 - (5) If the U.S. government determines that a domestic enrichment facility is necessary for national defense purposes, and that the existing Paducah facility is required for those purposes, the exclusive use of the facility over the longer-term for the re-enrichment of tails would likely entail a national security premium that should not be allowed to artificially impact prices in the commercial market; and

- (6) The revenue received by the government associated with the sale of tails for re-enrichment, or uranium derived from re-enriched tails sold by DOE should be dedicated to the GDP – D&D fund, if required to make up the deficits in the fund.

NEI appreciates the opportunity to provide this perspective to the subcommittee and would be happy to answer any questions you may have.