



Nuclear Regulatory Commission
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CURRENT ENERGY BILLS

HEARING
BEFORE THE
SUBCOMMITTEE ON ENERGY
OF THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED ELEVENTH CONGRESS
SECOND SESSION
ON
S. 679 **S. 3251**
S. 2900 **S. 3396**
S. 3233 **S. 3460**

JUNE 15, 2010



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DOE believes it is in the best interest of both DOE and the uranium industry to retain this flexibility regarding access to its excess uranium inventory. While it is possible that the Department could use the unallocated highly enriched uranium (HEU) among other inventories to create a strategic reserve, the HEU would need to be down blended. The National Nuclear Security Administration is already creating a reliable fuel supply of low enriched uranium (LEU) by down-blending from HEU. This supply would be available to both domestic and international recipients in the event of a market disruption.

Question 3. The DOE's actions to increase the rate at which it releases excess uranium into the market along with the actions of the Department of the Interior to withdraw Federal lands from exploration and mining taken together may have significant impact on domestic uranium mining in the U.S. Is it the Administration's intent to bring a halt to domestic uranium production?

Answer. No, the Administration certainly does not intend to halt domestic uranium production, and the Department does not believe its release of limited amounts of excess uranium into the market has resulted in a material adverse impact on the domestic uranium mining industry. As a result of close coordination among the offices within DOE responsible for the disposition of excess uranium inventories, the Department's total actual transfers for 2009, including transfers for accelerated cleanup services and for NNSA's pre-existing commitments, were 3.1 percent of average U.S. reactor demand in 2009, with an anticipated ramp up to 6.7 percent in 2010. This is significantly less material actually transferred than the 10 percent guideline articulated in the Department's 2008 Excess Uranium Inventory Management Plan (the Plan), and less material actually transferred than the amounts anticipated to be transferred for these years under the Plan.

Question 4. About 90 percent of the uranium that is used in U.S. reactors is from foreign sources. Given this large dependence on foreign sources for clean nuclear energy, is it advisable for the DOE to be taking steps that could create a greater dependence on foreign sources in the future?

Answer. DOE does not believe its releases of uranium relative to the total uranium market have resulted in a greater dependence on foreign sources of uranium. However, to increase domestic uranium enrichment capacity, a critical element of the fuel cycle for nuclear power reactors, the Department has made available \$4 billion in loan guarantees for the deployment of advanced enrichment technology in the United States.

Question 5. In 2008, DOE's total excess uranium inventory was the equivalent of 150 million pounds of U_3O_8 . What is the amount of excess uranium inventory held by the department today?

Answer. The amount of DOE's excess uranium inventory at the conclusion of calendar year 2010 will be the equivalent of around 128 million pounds of U_3O_8 , or the equivalent of 49,300 metric tons uranium (MTU). The decline of DOE's excess uranium inventory from about 153 million pounds of U_3O_8 (the equivalent of 58,900 MTU) presented in the December 2008 DOE Excess Uranium Inventory Management Plan results largely from the National Nuclear Security Administration's (NNSA) shift of previously unallocated U.S. HEU into allocated programs, including a program to provide replacement LEU fuel for research reactors which had previously used HEU (which does not impact the commercial industry) and from the Office of Environmental Management's choice of a non-market disposition path for the off-spec non- UF_6 inventory. A small part of the overall decline does result from DOE's excess uranium entering the commercial market in calendar years 2009 and 2010 as actual and anticipated transfers to USEC for accelerated cleanup services and NNSA's pre-existing commitments. These various reductions in DOE's inventory total 1,954 MTU, equivalent to 5.1 million pounds U_3O_8 .

Question 5a. How much of this material is U.S.-origin natural uranium in the form of UF_6 ?

Answer. The DOE's current inventory of U.S.-origin natural uranium in the form of UF_6 amounts to about 5,156 MTU.

Question 5b. How much of this material is Russian-origin natural uranium in the form of UF_6 ?

Answer. At the conclusion of transfers related to the accelerated cleanup at the Portsmouth Gaseous Diffusion Plant, DOE's inventory of Russian-origin natural uranium in the form of UF_6 at the end of calendar year 2010 will be about 11,315 MTU.

Question 5c. How much of this material is off-spec non- UF_6 uranium?

Answer. As of the end of calendar year 2008, DOE identified 4,462 metric tons of uranium as off-spec non- UF_6 . DOE has made several attempts to sell or reuse this material to avoid or mitigate disposal costs and responsibilities. Of the 4,462 metric tons, approximately 1,515 metric tons have been disposed of as of June 30,