

**Statement of R. Shane Johnson
Chief Operating Officer for Nuclear Energy
U.S. Department of Energy
before the
Subcommittee on Energy
Senate Committee on Energy and Natural Resources on
S. 3233, the Surplus Uranium Disposition Act of 2010**

June 15, 2010

Introduction

Thank you, Madam Chairman, Ranking Member Risch, and Members of the Subcommittee. I appreciate this opportunity to appear before you and comment on legislation under consideration by the Committee, as well as to provide information on the Department of Energy's management and disposition of its excess uranium.

The Administration continues to view nuclear power as an important element in its strategy to increase energy security and combat climate change. A strong domestic nuclear industry supports the expansion of clean, carbon-free nuclear energy in the United States. To date, the Department of Energy has awarded conditional commitments for loan guarantees for the construction of both a new nuclear power plant and a new uranium enrichment facility, and the Department is considering additional loan guarantee applications in both of these areas. The Department also sees the necessity of managing its excess uranium inventory in a manner that is consistent with and supportive of the maintenance of a strong domestic nuclear industry achieving our climate and energy goals while at the same time supporting Departmental missions and objectives.

Excess Uranium Inventory

To start, I would like to provide the Subcommittee with an overview of the Department's excess uranium inventory. The Department of Energy holds a significant inventory of uranium that exceeds government needs. This inventory contains uranium in various forms and includes highly enriched uranium ("HEU"), low enriched uranium ("LEU"), natural uranium, and depleted uranium hexafluoride, all of which must be actively managed. The natural uranium equivalent contained in this inventory corresponds to about three years of supply for current U.S. nuclear power plants. The uranium held in this inventory is a valuable asset both in terms of its monetary value and in the role it could play in achieving vital Departmental missions and maintaining a healthy domestic nuclear fuel infrastructure. However, a significant amount of this inventory requires further processing before it is considered marketable. The long lead times anticipated for processing some of our uranium materials would reduce the annual amount of uranium that could enter the market.

For non-proliferation reasons, the Department already has an active program for down-blending much of its excess HEU into LEU. The Department will continue to down-blend HEU to promote non-proliferation objectives.

The Department's current excess uranium inventory also contains a considerable amount of natural uranium in the form of uranium hexafluoride. This uranium meets commercial-grade specifications and does not require further processing to be marketable. Some of this is domestic natural uranium that was declared excess to U.S. defense needs while other quantities were purchased from Russia to support the U.S.-Russia HEU Purchase Agreement.

The excess uranium in the Department's inventory also includes depleted uranium hexafluoride that was generated from the government's prior uranium enrichment activities. Making this depleted uranium hexafluoride useable could require considerable processing, depending on the uranium's form, assay level, and degree of contamination. Some of this material—especially that with higher assay levels or about 10 percent of DOE's total inventory of depleted uranium hexafluoride—is potentially marketable subject to the market price of uranium.

Management of Excess Uranium

Next, I will describe how the Department manages its excess uranium inventory. DOE's Office of Nuclear Energy (NE), Office of Environmental Management (EM), and the National Nuclear Security Administration (NNSA) are the organizations within DOE responsible for the Department's excess uranium inventories. These offices coordinate the identification of transactions that are planned or under consideration, or that may be considered by DOE in the future, for disposition of DOE's excess uranium consistent with the following principles.

First, the Department has broad authority under the Atomic Energy Act (AEA), as amended, to loan, sell, transfer or otherwise utilize its inventories of depleted, natural and enriched uranium. In exercising this authority, the Department must act consistently with other relevant statutory provisions, including the National Environmental Policy Act and section 3112 of the USEC Privatization Act. Section 3112 imposes limitations on certain specified transactions, including the sale and transfer of natural or enriched uranium to certain domestic end users of material from the Department's inventory. Under this section, the Secretary must determine that a proposed sale or transfer of natural or LEU, with the exception of certain sales to select non-commercial entities or for national security purposes, "will not have an adverse material impact on the domestic uranium mining, conversion, or enrichment industry." We often refer to this procedure as a "Secretarial Determination."

Second, the Department should maintain sufficient uranium inventories at all times to meet the current and reasonably foreseeable needs of Departmental missions.

Third, the Department undertakes transactions involving non-U.S. Government entities in a transparent and competitive manner, unless the Secretary of Energy determines in writing that overriding Departmental needs dictate otherwise.

Fourth, the Department believes, as a general guideline, that the introduction into the

domestic market of uranium from Departmental inventories in amounts that do not exceed 10 percent of average annual domestic demand (approximately 2,000 metric tons of uranium or 5 million pounds of U3O8) in any one year period should not have an adverse material impact on the domestic uranium industry. In fact, the 10 percent guideline was one of industry's recommendations regarding the Department's management of its excess uranium.

The disposition of excess uranium is anticipated to take at least 25 years, consistent with the time envisioned for completing the decommissioning and decontamination of the gaseous diffusion plant sites where much of the excess uranium inventory is stored and for dismantlement of nuclear weapons removed from the national security stockpile. The Department anticipates that in any given year it may introduce less than that amount into the domestic market and that in some years it may introduce more, particularly for national needs.

While the 10 percent guideline appears to be a reasonable rule of thumb, the Department is not exempted from conducting analyses of the impacts of specific sales or transfers on the market prior to entering into these sales or transfers. It is important to note that the Department will assess each and every proposed uranium transaction in the context of all current and other planned DOE transactions.

In July of 2009, the Department announced that it would transfer uranium to USEC Inc. in exchange for accelerated cleanup services to be performed at the Portsmouth Gaseous Diffusion Plant. The subsequent Secretarial Determination placed a limit on this transfer of no more than 300 metric tons of uranium per quarter for a total of 1,125 metric tons of uranium over the combined calendar years 2009 and 2010. In light of this transfer, the Department decided not to conduct additional sales or transfers of uranium it had planned to carry out during calendar years 2009 and 2010 and limited its transactions to the 1,125 metric tons for the accelerated cleanup at Portsmouth and the amount of NNSA's committed transfers related to the blend down of HEU. As a result of coordination among EM, NNSA, and NE, the Department's total actual transfers for 2009 were 3.1 percent of average U.S. reactor demand in 2009 ramping up to 6.6 percent in 2010, significantly less than the 10 percent guideline.

The Administration is seeking an increase of \$184 million in Congressional appropriations for FY 2011 in lieu of bartering uranium for environmental cleanup at the Portsmouth site. Secretary Chu, in testimony at the Senate Energy and Natural Resources Committee's hearing on DOE's FY 2011 budget in February, stated that the Department favors a budgetary approach over bartering uranium to fund environmental cleanup at the Portsmouth site.

Comments on S.3233

It should be clear from the preceding comments that the Department is committed to managing its excess uranium inventories in a manner that: (1) complies with all applicable legal requirements; (2) maintains sufficient uranium inventories at all times to meet the current and reasonably foreseeable needs of DOE missions; (3) undertakes

transactions involving non-U.S. Government entities in a transparent and competitive manner, unless the Secretary of Energy determines in writing that overriding DOE mission needs dictate otherwise; and (4) supports achieving our climate and energy goals while at the same time supporting Departmental missions and objectives.

The Department understands that the Surplus Uranium Disposition Act of 2010, S.3233, also seeks to facilitate an orderly management and disposition of DOE's excess uranium to support a strong domestic nuclear industry. We believe certain provisions of the bill, while well intentioned, may work against meeting that objective and would complicate the Department's ability to meet its own missions. We are especially concerned that the "technical amendment" at the end of the bill would revise the definition of "Commission" in section 11f of the AEA to mean "Nuclear Regulatory Commission" rather than "Atomic Energy Commission." This provision would result in a major change, which we believe was unintended, in how the government deals with nuclear matters and effectively strip DOE of its authorities under the AEA and transfer them to the Nuclear Regulatory Commission. This change would, in effect, undo the Energy Reorganization Act of 1974 and go back to the situation that existed when the Atomic Energy Commission was responsible for implementing all of the authority under the AEA.

Other provisions of the bill are inconsistent with the concept of competition in sales or transfers, and potentially conflict with NNSA and EM commitments.

Conclusion

In considering the management and disposition of the Department's excess uranium inventory, a variety of factors need to be assessed, including DOE's mission needs, energy security, and the flexibility to be responsive to a changing uranium market.

Thank you for this opportunity to testify before you. I look forward to answering your questions and working with the Committee to achieve the Administration's goals of utilizing our valuable uranium assets in a manner that meets energy security needs, reduces the nation's carbon emissions, and supports skilled jobs for American workers.