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Final Report on Work Performed

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Period: January 15-September 30, 1997

Period Highlights

- Completion of Holdren-Velikhov Commission report to Presidents Clinton and Yeltsin on plutonium disposition
- Briefings to Secretary of Energy, Deputy National Security Adviser, Director of ACDA
- Preparation for and presentation to IAEA Fuel Cycle Symposium
- Analysis of nonproliferation implications of options for managing research reactor fuel at Savannah River

Introduction. During the period, consultant work focused on providing support to DOE by: (1) serving as the U.S. Executive Secretary for the U.S.-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium; (2) serving as the U.S. representative to an IAEA working group on management of plutonium, convened in preparation for a global symposium on the future of the nuclear fuel cycle, and making an invited presentation to that symposium; and (3) drafting a comprehensive analysis of the nonproliferation implications of different options for management of aluminum-based research reactor fuels at the Savannah River Site.

U.S.-Russian Independent Scientific Commission. During January and February, consultant was fully responsible for all preparations for the February meeting of the U.S.-Russian Independent Scientific Commission on Disposition of Excess Weapons Plutonium (commonly known as the Holdren-Velikhov Commission), including playing the principal role in drafting the Commission's final report. Consultant was then responsible for redrafting the final report during and after that meeting, based on discussions there, and played a central role in the negotiations between the U.S. and Russian participants before, during, and after that meeting. Consultant reached final agreement with the Russian participants on the report and associated transmittal letter during travel to Moscow in May 1997. The Commission's Final Report, with extensive recommendations on next steps to accomplish disposition of excess weapons plutonium, was transmitted to President Clinton and President Yeltsin on June 1, 1997. In response, President Yeltsin signed a decree in July establishing a high-level Russian interagency task force, chaired by the Commission's Russian co-chairman, Yevgeniy Velikhov, to develop Russia's strategies for plutonium disposition and for international cooperation in this field, including preparations for the negotiations with the United States recommended in the Commission's report. President Clinton described the report as a "critical basis for further progress" in this area, and called

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on the Commission to continue its existence in order to review progress in implementing its recommendations.

With U.S. Commission co-chairman John Holdren, consultant briefed Secretary of Energy Peña, Deputy National Security Adviser James Steinberg, and Arms Control and Disarmament Agency (ACDA) Director John Holum on the Commission's report and next steps that needed to be taken. The briefing for Peña and other DOE senior staff took place in preparation for the Secretary's first trip to Russia in July, and included a broad-ranging discussion of steps to be taken to improve security for nuclear materials in Russia in general. During the July-September period, consultant continued to be actively engaged in follow-up and additional briefings related to the Commission's report. Copies of the Commission's final report and the transmittal letter to the President were provided to DOE.

IAEA Fuel Cycle Symposium. In June, 1997, in cooperation with the Nuclear Energy Agency of the OECD, the IAEA held the "International Symposium on Nuclear Fuel Cycle and Reactor Strategies: Adjusting to New Realities." At DOE's request, consultant served as the U.S. representative to the IAEA working group on management of plutonium, which prepared a "key issue paper" on that subject for presentation at the Symposium. Consultant traveled to Vienna for meetings of the working group, and drafted much of the key issue paper the group prepared. At DOE's request, consultant prepared and presented an invited paper at the Symposium describing the U.S. plutonium disposition program, and the U.S. position on reprocessing and civilian use of plutonium. Each of these papers will be published in IAEA books from the Symposium in January 1998. Copies of each of these papers were provided to DOE.

Management of Research Reactor Fuel. At DOE's request, consultant prepared a comprehensive analysis of the nonproliferation implications of different options for management of aluminum-based research reactor fuel at the Savannah River Site. This analysis considered, in particular, the impact on U.S. nonproliferation policy of a possible decision to reprocess this material, compared to other options such as melting and blending it for direct geologic disposal.