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Policy Update

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Preliminary Analysis of the U.S. Department of Energy's Fiscal Year 2006 Nonproliferation Budget Request

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The Department of Energy (DOE) fiscal year (FY) 2006 budget proposal for its global threat reduction programs is an increase of approximately \$130 million over the fiscal 2005 funding level. However, the budget reflects shifting priorities, including additional funds for new or expanded international threat reduction programs. The budget for nuclear security in Russia and the former Soviet states is larger than in FY 2005, primarily because of large increases in a few programs. However, some key activities are cut, particularly in the nuclear material security and weapon scientist redirection areas.

Budget Highlights:

- A net 17% increase for the International Nuclear Materials Protection and Cooperation program (+\$48.7 million, to \$343.4 million), though within this budget Russian activities would be cut and increases provided primarily for projects outside of Russia and the former Soviet Union (FSU).
- A net 200% increase for the program to facilitate the shut-down of Russia's plutonium production reactors (+\$88.0 million, to \$132.0 million).
- A net \$4.3 million increase in the Global Threat Reduction Initiative (GTRI) (to \$98.0 million), but there are also cuts in some GTRI activities and the initiative has absorbed some DOE programs funded previously in other parts of the budget.
- A \$2.8 million cut for the newly renamed Global Initiative for Proliferation Prevention (GIPP), known formerly as the Russian Transition Initiatives (RTI) program, which is focused on redirecting weapons scientists.
- A net \$40.0 million increase for Fissile Materials Disposition. This total includes a reduction (-\$34.5 million) for construction of U.S. plutonium disposition facilities, offset by an increase (+\$74 million) in U.S. operation and maintenance activities. Funding for Russian plutonium disposition activities would be slightly increased (+\$0.5 million).

Key Budget Themes:

- **Globalizing Threat Reduction**

In recent years, DOE has spent a small portion of its funding on cooperative nuclear security efforts in countries beyond Russia and the former Soviet states. Examples include the Megaports program to assist with screening of cargo at major ports around the world, and international radiological threat reduction. In the fiscal year 2005 defense authorization act, Congress provided DOE with expanded authority to pursue nonproliferation projects outside the FSU.

For fiscal 2006, DOE builds on this authority in several areas, including:

- Changing the RTI program to the Global Initiative for Proliferation Prevention to broaden its scope and give it the flexibility to pursue WMD facility conversion and expertise redirection in new countries, including Iraq and Libya, as future opportunities arise.
- Increasing the International Nuclear Materials Protection and Cooperation (MPC&A) budget for activities outside of the FSU, including:
 - An additional \$58.9 million for the Megaports program, which focuses little direct attention on Russia or the post-Soviet states.
 - Approximately \$32 million in new money to secure nuclear material in non-FSU nations.
- Focusing greater attention on the Global Threat Reduction Initiative. The GTRI program has absorbed some existing programs that were previously funded under other sections of the nonproliferation budget. The FY 2006 request adds funds for some GTRI activities and reduces amounts for others.
 - Plus-ups include: the RERTR program (+\$5.9 million); U.S. radiological threat reduction (+\$5.3 million); Kazakhstan spent fuel disposal (+\$6.0 million); and return of U.S.-origin spent fuel from foreign research reactors (+\$4.2 million).
 - Decreases include: Repatriation of Russian-origin spent fuel (-\$0.5 million); international radiological threat reduction (-\$0.7 million); and funds to pursue removal of nuclear materials from vulnerable international sites that are not addressed by other programs (-\$6.0 million). Funds are also eliminated to purchase Russian highly-enriched uranium for U.S. research reactors until these reactors are converted to low-enriched uranium (-\$9.9 million).

- **Ending Russian Plutonium Production**

The fiscal year 2006 budget calls for a significant boost in resources for the Elimination of Weapons-Grade Plutonium Production (EWGPP) program. This program is designed to facilitate the closure of Russia's three remaining operational plutonium production reactors. These reactors – two in Seversk, one in Zheleznogorsk – continue to operate to produce heat and electricity for surrounding communities. But they also produce a combined 1.2 metric tons of weapon-grade plutonium each year. This program will facilitate the shut-down of these plants by furnishing alternative fossil fuel-based generating capacity. DOE proposes a

large increase for the program in anticipation of significantly expanded facility construction activities at the Seversk site during 2006.

- **Trimming Key Nuclear Security Programs**

The budget reduces FY 2006 funding for Russia-focused components of the MPC&A program, including the programs to: secure nuclear material at Rosatom Weapons Complex facilities (-\$1.8 million); enhance security of Russian Strategic Rocket Forces and Navy warhead sites (-\$23.0 million); downblend Russian highly-enriched uranium to low-enriched levels (-\$2.0 million); promote sustainability for MPC&A upgrades (-\$11.0 million); and install radiation detection equipment at borders and transportation hubs through the Second Line of Defense program (-\$5.0 million). The reduction in funding for the Russian Navy sites is due to the substantial completion of that work.

- **Liability Delay In Disposition Program**

While an increase is requested for the overall fissile material disposition budget (+\$40.0 million, to \$653.1 million from \$613.1 million), the DOE proposal would reduce the amount of funding for construction of U.S. plutonium disposition facilities by approximately \$34.5 million from the current level. A substantial increase (approximately \$74 million) would be provided for the operation and maintenance segment of the fissile material disposition budget. The funding cut for, and the delay in, constructing U.S. disposition facilities is attributed to the ongoing dispute with Russia over the unresolved liability terms of the implementing agreement. Some officials are cautiously optimistic that a new proposal on liability language put forward recently by the United States will be accepted by Russia, ending this chapter of the U.S.-Russian liability impasse. But even agreement on plutonium disposition liability will not settle the continuing controversy surrounding the liability provisions of the CTR Umbrella Agreement which expires in 2006.

- **Russian Weapons Scientists GIPPed**

The Energy Department proposes to phase-out its WMD expertise redirection efforts at the nuclear weapon design city of Snezhinsk this year and begin drawing down its activities in the corollary city of Sarov. Instead, the GIPP anticipates shifting its attention in Russia during fiscal 2006 to the challenge of redirecting nuclear weapons-related workers, engineers, and technicians associated with the shut-down of the plutonium production reactors in Seversk and Zheleznogorsk, as well as considering other global opportunities.

*FY 2006 DOE Budget Requests for Selected Global Threat Reduction Programs
(All amounts in \$ millions)*

Program	Fiscal Year 2005 Appropriation	Fiscal Year 2006 Request	Increase/Decrease
<i>Nonproliferation and International Security (N&IS)</i>			
Warhead and Fissile Material Transparency	\$16.4	\$13.5	-\$2.9
International Nonproliferation Export Controls	\$6.9	\$5.9	-\$1.0
International Nuclear Security	\$8.9	\$5.6	-\$3.3
Kazakhstan BN-350 shutdown	\$1.5	\$1.5	---
<i>Subtotal, Nonproliferation and International security</i>	<i>\$33.7</i>	<i>\$26.5</i>	<i>-\$7.2</i>
<i>International Nuclear Materials Protection and Cooperation (MPC&A)</i>			
Navy Complex	\$15.0	\$6.5	-\$8.5
Strategic Rocket Forces	\$62.0	\$47.5	-\$14.5
Rosatom Weapons Complex	\$88.0	\$86.2	-\$1.8
Civilian Nuclear Sites and Non-Russia/FSU MPC&A	\$14.7	\$47.3	+\$32.6
Material Consolidation and Conversion	\$30.0	\$28.0	-\$2.0
National Programs and Sustainability	\$41.0	\$30.0	-\$11.0
Second Line of Defense core program	\$29.0	\$24.0	-\$5.0
Megaports	\$15.0	\$73.9	+\$58.9
<i>Subtotal, MPC&A</i>	<i>\$294.7</i>	<i>\$343.4</i>	<i>+\$48.7</i>
<i>Global Initiatives for Proliferation Prevention (formerly Russian Transition Initiatives)</i>			
Global Initiatives for Proliferation Prevention	\$40.7	\$37.9	-\$2.8
<i>Subtotal, GIPP</i>	<i>\$40.7</i>	<i>\$37.9</i>	<i>-\$2.8</i>
<i>HEU Transparency Implementation</i>			
HEU Transparency Implementation	\$20.8	\$20.5	-\$0.3
<i>Subtotal, HEU Transparency Implementation</i>	<i>\$20.8</i>	<i>\$20.5</i>	<i>-\$0.3</i>
<i>Elimination of Weapons Grade Plutonium Production (EWGPP)</i>			
Seversk activities	\$34.2	\$127.5	+93.3
Zheleznogorsk activities	\$5.0	\$2.5	-\$2.5
Crosscutting and Technical Support Activities	\$0.6	\$2.0	+1.4
DOD funding re-appropriation	\$4.2	\$0	-\$4.2
<i>Subtotal, EWGPP</i>	<i>\$44.0</i>	<i>\$132.0</i>	<i>+\$88.0</i>
<i>Russian Plutonium Disposition</i>			
VVER-1000 reactors modifications	\$3.0	\$3.5	+\$0.5
BN-600 reactor conversion	\$3.5	\$3.5	---
Licensing, regulations, and other program support	\$5.9	\$5.4	-\$0.5
Packaging, transport, and storage	\$2.1	\$1.7	-\$0.4
Implement MOX fuel fab facility design	\$19.0	\$22.0	+\$3.0
U.S. technical support	\$9.5	\$9.5	---
U.S. Support for MOX fuel fab design	\$20.5	\$18.4	-\$2.1
<i>Subtotal, Russian plutonium disposition activities</i>	<i>\$63.5</i>	<i>\$64.0</i>	<i>+\$0.5</i>
<i>Global Threat Reduction Initiative (GTRI)</i>			
Reduced Enrichment for Research and Test Reactors	\$18.8	\$24.7	+\$5.9
Russian Research Reactor Fuel Return	\$15.2	\$14.7	-\$0.5
Kazakhstan spent fuel disposition	\$2.0	\$8.0	+\$6.0
HEU Research Reactor Fuel Purchase	\$9.9	\$0	-\$9.9
U.S. foreign research reactor fuel return	\$4.5	\$8.7	+4.2
U.S. radiological threat reduction	\$7.5	\$12.8	+5.3
International radiological threat reduction	\$24.8	\$24.1	-\$0.7
Emerging threats	\$11.0	\$5.0	-\$6.0
<i>Subtotal, GTRI</i>	<i>\$93.7</i>	<i>\$98.0</i>	<i>+\$4.3</i>
TOTAL	\$591.1	\$722.3	+\$131.2