



2000 Plutonium Management and Disposition Agreement

Office of the Spokesman
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Secretary of State Hillary Rodham Clinton and Russian Foreign Minister Sergey Lavrov signed the Plutonium Disposition Protocol on Tuesday, April 13.

Overview

- The Plutonium Disposition Protocol represents an essential step in the nuclear disarmament process.
- The Protocol makes arms reductions irreversible by ensuring that United States and Russia will transparently dispose weapon-grade plutonium from their respective defense programs, thereby preventing the plutonium from ever being reused for weapons or any other military purpose.
- The Protocol, thus, exemplifies the Parties' obligations under Article VI of the Non-Proliferation Treaty and their goals for nuclear disarmament and nuclear security.
- By updating the 2000 Plutonium Management and Disposition Agreement (PMDA), each country will proceed to complete and operate facilities that will dispose of at least 34 metric tons of this plutonium by using it as fuel in civil power reactors to produce electricity.
- Combined, this represents enough material for approximately 17,000 nuclear weapons.
- The PMDA also provides that additional weapon-grade plutonium declared excess, as arms reductions go forward, should be disposed under the same or comparable transparency and other terms.
- Disposition activities on both sides will be subject to monitoring and inspections, to provide confidence that the Parties are disposing of weapon-grade plutonium in accordance with the terms and conditions of the Agreement.
- U.S. cooperation with the Russian program will be limited to the \$400 million pledged in 1999-2000 subject to future appropriations, 25 percent of which will now be spread out over the decades of verified disposition.
- Russia's implementation of its disposition will no longer be contingent on additional U.S. and other donor funding.

Background

The Plutonium Management and Disposition Agreement (PMDA) signed by Vice President Gore and Russian Prime Minister Kasyanov in 2000 committed each side to dispose of no less than 34 metric tons of weapon-grade plutonium. The Protocol is essential for full implementation of the PMDA since the Russian program set forth in 2000 proved incompatible with Russia's nuclear energy strategy and was, thus, not financially viable. Russia's announcement of its nuclear strategy in 2006, and clarification of its preferred disposition approach in 2007, provided a basis for the two sides to update the PMDA via this Protocol in a manner that coincides with that strategy.

Existing nuclear arms reductions agreements have already led to the removal of weapon-grade plutonium from the U.S. and Russian defense programs. More is envisioned to be removed as further reductions take place. The PMDA, as amended by the Protocol, details the goals, monitoring and other conditions to ensure that disposition of that plutonium is transparent and irreversible.

The Protocol enhances the rights, obligations, principles and measures for monitoring and inspecting each side's disposition activities and their end products, thereby ensuring that this material will never again be used for nuclear weapons or any other military purpose. On March 12 the U.S. and Russian Co-Chairmen of the PMDA's Joint Consultative Commission also approved a number of key elements clarifying how monitoring and inspections will be developed and carried out.

Weapon-grade plutonium, unlike weapon-grade uranium, cannot be blended with other materials to make it unusable in weapons. But it can be fabricated into mixed oxide uranium-plutonium (MOX) fuel and irradiated in civil nuclear power reactors to produce electricity. This irradiation results in spent fuel, a form that is not usable for weapons or other military purposes and a form that the Protocol prohibits being changed any time in the future unless subject to agreed international monitoring measures and only for civil purposes.

The amended PMDA will provide that this weapon-grade plutonium be disposed by irradiating it in light water reactors in the United States and in fast-neutron reactors operating under certain nonproliferation conditions in the Russian Federation. The U.S. MOX fuel fabrication facility being constructed at the Department of Energy's Savannah River Site is planned to begin operation in 2016; Russia has already fabricated MOX fuel on a limited basis and is in the process of constructing/modifying fuel fabrication facilities capable of producing MOX fuel at levels required to meet the PMDA's disposition rate.

Both countries plan to begin disposition by 2018. The PMDA does not call for strict linkages in the timing of their respective programs, but both countries are to seek to proceed in parallel to the extent practicable.

Entry into force of the PMDA, as amended by this Protocol, and of the 2006 Protocol containing liability protections, will enable new cooperation to go forward between the United States and the Russian Federation. The Protocol reflects the previous U.S. pledge to contribute up to \$400 million for Russian disposition program activities. Up to \$300 million may be used for construction and development activities (including development of the monitoring and inspection regime). At least \$100 million would be allocated over the disposition period on a fixed rate per metric ton of confirmed disposed material.

Specific milestones for U.S. contributions will be agreed by the Department of Energy and the Russian State Corporation for Atomic Energy (Rosatom). The Department of Energy currently has \$17 million for this cooperation; the rest will be subject to the availability of appropriated funds and the U.S. budgetary review process. The Department is currently seeking \$113 million for FY 2011 for Russian fissile materials disposition, \$100 million of which is included under the PMDA pledge.

The Department of Energy and Rosatom will, under the amended PMDA, seek financial assistance from other countries. However, the amended agreement, unlike the 2000 Agreement, makes clear that Russian disposition will not be contingent on obtaining any additional U.S. or other assistance.

Next steps include (1) fulfillment of each Party's requirements for and entry into force of the PMDA, as amended by the Protocol, along with the Protocol of 2006 containing liability provisions; (2) consultations and negotiations with the International Atomic Energy Agency on verification measures under the PMDA; and (3) development of mutually agreed milestones for the U.S. \$400 million contribution and related contracts in anticipation of entry into force.