

Recent Developments in U.S.-Russian Nonproliferation Cooperation

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On October 3, 2016, Russian President Vladimir Putin issued a decree suspending participation in a bilateral U.S.-Russia weapons [plutonium disposal](#) agreement (the 2000 [Plutonium Management and Disposition Agreement](#), or PMDA). The next day, Russia [suspended](#) participation in a 2013 cooperative agreement on nuclear- and energy-related research and terminated a third from 2010 on exploring options for converting research reactors from weapons-usable fuel.

These agreements are part of a suite of nonproliferation and nuclear security agreements the two countries concluded starting in the 1990s to prevent diversion of weapons-usable nuclear materials. Russia's recent steps contribute to a continuing decline in U.S.-Russian nonproliferation cooperation that accelerated in 2014 after Russia's invasion of Ukraine. At the same time, Russia has not suspended its participation in the [New START](#) arms control agreement that reduces nuclear warheads.

Russia's suspension of the PMDA came at a time of uncertainty for the agreement. The PMDA requires the United States and Russia to each convert 34 metric tons of weapons-grade plutonium, retained from Cold War-era production, to a form unusable for nuclear weapons. This is enough plutonium for [17,000](#) nuclear weapons. The agreement was amended in 2006 and 2010 to accommodate a change to the Russian plan and to establish liability protections. Article 3.1 of the 2010 Protocol states that the parties may agree "in writing" if they choose "other measures" of disposition, and the PMDA has a Joint Consultative Commission (JCC) to address implementation issues. The two countries agreed to begin plutonium disposition by 2018, with the International Atomic Energy Agency (IAEA) verifying implementation.

On the U.S. side, a plant to convert the plutonium into mixed oxide (MOX) fuel is being built at the Department of Energy's (DOE's) Savannah River Site in South Carolina. Due to the growing cost of the MOX plant, the Obama Administration [proposed](#) changing the U.S. plan from processing plutonium into MOX fuel to an option known as "dilute and dispose," a change that would require congressional approval. (DOE's FY2015 budget justification said the lifecycle cost estimate for the MOX program had risen to \$30 billion; by September 2016, those [estimates](#) had further

risen to \$50-\$60 billion.) In FY2015, the Administration proposed placing the facility in "cold standby" while studying other plutonium disposition options. Instead, Congress appropriated \$345 million to continue construction at a reduced level and required DOE to study alternative disposition approaches. DOE received \$340 million in FY2016 to continue construction. In its FY2017 budget request, the Administration proposed terminating the project and instead pursuing the dilute and dispose option.

In response to these evolving U.S. plans, Russian officials, including President Putin, [claimed](#) even before the PMDA suspension that the dilute and dispose method would not fall under the terms of the agreement and said that any changes would require Russian approval. They also expressed concern that the United States might use the plutonium for weapons in the future. Some U.S. experts have [countered](#) that the dilute and dispose method could irreversibly alter the weapons-grade plutonium if it were blended with lower-grade plutonium, and therefore would be acceptable for meeting nonproliferation goals.

In response to the PMDA suspension, White House spokesman Josh Earnest [said](#) that the Russian decision "to unilaterally withdraw from this commitment is disappointing." In an October 4 [interview](#) with Russian media, U.S. Under Secretary for Arms Control Rose Gottemoeller said that the United States was committed to implementing the PMDA and had been transparent with Russian counterparts about the debate over the disposal method. She said the United States was willing to work with Russia to resolve technical questions and expressed confidence about the irreversibility of the dilute and dispose method. She reiterated that Congress would have to approve a change.

The Russian suspensions come at a time of increased tension in U.S.-Russia relations due to the collapse of a recent ceasefire agreement in Syria the two countries had brokered. The same day Russia suspended the PMDA, the State Department [announced](#) the United States was suspending its "participation in bilateral channels with Russia" to sustain the Cessation of Hostilities in Syria, citing Russia's failure "to live up to its own commitments." In a [statement](#) on the PMDA suspension, the Russian Foreign Minister said Moscow's decision was "a signal to Washington that it cannot use the language of force, sanctions and ultimatums with Russia while continuing to selectively cooperate with our country only when it benefits the U.S."

The political context of the PMDA suspension was further visible in the draft law on the PMDA suspension President Putin submitted to Russia's parliament. The legislation [includes](#) a wide-ranging and unlikely list of conditions the United States must meet before Russia will return to the agreement, including changes to NATO's force structure, removal of sanctions against Russia, and compensation for damages it has incurred. An explanatory [note](#) attached to the legislation said that Russia intended to keep the 34 metric tons of plutonium out of weapons use and remained committed to nuclear nonproliferation. The [statements](#) suspending the other two nuclear-related agreements said that "Russia will preserve the possibility of resuming cooperation under the Agreement when that is justified by the general context of relations with the United States."

The suspensions might not have immediate practical impact. Both sides have said they will continue to work on pledges made under the PMDA. Moreover, a study on research reactor conversion had been completed, and joint research work had already been frozen. Nevertheless, the PMDA and research reactor conversion agreements were the two most prominent ongoing bilateral nuclear security projects in Russia. Even if both sides dispose of the weapons plutonium separately, verification provisions would be lost.

More broadly, the suspensions are part of an ongoing decline in U.S.-Russian nonproliferation cooperation. Cooperation had already narrowed after the 2013 [expiration](#) of the Nunn-Lugar [Cooperative Threat Reduction](#) (CTR) Umbrella Agreement. Still, the United States and Russia continued to collaborate on ongoing projects and hoped to expand nuclear research work. Some cooperation also continued on cleaning out weapons-grade material in third countries, most recently from [Poland](#).

Joint efforts deteriorated further after Russia's actions in Ukraine starting in March 2014. In April 2014, the U.S. Department of Energy put certain joint research projects and meetings [on hold](#). In December 2014, Russia [informed](#) the United States that it would no longer accept U.S. assistance in securing nuclear materials. The FY2015 National Defense Authorization Act (NDAA) ([P.L. 113-291](#), §3122) stated that nuclear security activities in Russia were to be completed no later than 2018 (except for activities under the PMDA). The FY2016 NDAA ([P.L. 114-92](#), §3121) went

further, prohibiting U.S. nonproliferation assistance funding to Russia except with a national security waiver. The FY2017 NDAA contains similar provisions.