



## CRS Report for Congress

# U.S.-Russian Civilian Nuclear Cooperation Agreement: Issues for Congress

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### Summary

The United States and Russia signed a civilian nuclear cooperation agreement on May 6, 2008. President Bush submitted the agreement to Congress on May 13. This report discusses key policy issues related to that agreement, including future nuclear energy cooperation with Russia, U.S.-Russian bilateral relations, nonproliferation cooperation and Russia's policies toward Iran. This report will be updated.

At their July 2006 summit in St. Petersburg, Presidents Bush and Putin issued a Joint Statement in which they pledged to start negotiations on a civilian nuclear cooperation agreement. The Presidents initialed a negotiated text of the agreement on July 3, 2007.<sup>1</sup> The agreement was signed in Moscow on May 6, 2008 by U.S. Ambassador William Burns and Rosatom Head Sergei Kirienko. On May 13, 2008, President Bush submitted the proposed text to Congress along with the required Nuclear Proliferation Assessment (NPAS) and his determination that the agreement promotes U.S. national security.<sup>2</sup> The annexed classified NPAS was submitted separately. According to the President's letter of submittal, the agreement meets all the terms of the Atomic Energy Act<sup>3</sup> and therefore does not require any exemptions from the law's requirements. Therefore, the agreement will enter into effect after 90 days of continuous session<sup>4</sup> unless Congress enacts a joint resolution of disapproval. Congress could adopt either a joint resolution of approval with (or without) conditions, or stand-alone legislation that could approve or disapprove the agreement.

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<sup>1</sup> Text of Declaration on Nuclear Energy and Nonproliferation Joint Actions, July 3, 2007 [[http://moscow.usembassy.gov/bilateral/joint\\_statement.php?record\\_id=64](http://moscow.usembassy.gov/bilateral/joint_statement.php?record_id=64)]

<sup>2</sup> [<http://www.whitehouse.gov/news/releases/2008/05/20080513-1.html>]

<sup>3</sup> Under section 123.a., codified at 42 U.S.C. 2153(a)), Atomic Energy Act of 1946, ch. 724, 60 Stat. 755 (1946), as amended.

<sup>4</sup> Days on which either House is in a recess of more than three days (pursuant to a concurrent resolution authorizing the recess) do not count toward the total. If Congress adjourns its session *sine die*, continuity is broken, and the count starts anew when it reconvenes.

## Background

The U.S. Atomic Energy Act of 1954 (42 USC 2011 et seq) governs significant nuclear cooperation between the United States and other states.<sup>5</sup> The United States has about two dozen agreements for civil nuclear cooperation in place. Such agreements, known as “123 agreements,” provide the framework and authorization for cooperation, and do not guarantee certain exports, technology, or material. Before significant nuclear exports<sup>6</sup> can occur, the State Department, with the advice of the Department of Energy, negotiates an agreement, which must meet criteria listed in Section 123.a., (1) through (9), 42 U.S.C. 2151.<sup>7</sup> Russia is the only NPT-recognized nuclear weapon state with whom the United States does not yet have a civilian nuclear cooperation agreement. The United States has such agreements for civil nuclear cooperation with: China (1985) and the United Kingdom and France under the U.S.-EURATOM agreement (amended in 1995). In the case of the agreement with China, Members of Congress attached conditions to the joint resolution of approval of the agreement, based on concerns, among others, that China was exporting materials and equipment relevant for nuclear weapons development to non-nuclear weapon states.<sup>8</sup>

Prior to July 2006, Moscow’s nuclear commerce with Iran presented the chief obstacle to U.S.-Russian nuclear cooperation. Several factors may have contributed to the shift in U.S. policy: a tougher line by Moscow since 2003 with respect to Iran, especially Russia’s agreement with Iran to take back spent nuclear fuel from the Russian-built Bushehr reactor; President Bush’s embrace of nuclear power as an alternative to reliance on hydrocarbons; President Bush’s proposals to multilateralize the nuclear fuel cycle and develop proliferation-resistant technologies through the Global Nuclear Energy Partnership (GNEP) (which includes embracing reprocessing technology after decades of U.S. opposition);<sup>9</sup> and Russia’s proposals to host an international fuel center which would store and reprocess spent fuel and enrich uranium for fresh fuel.

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<sup>5</sup> Nuclear cooperation includes the distribution of special nuclear material, source material, and byproduct material, to licensing for commercial, medical, and industrial purposes. These terms, “special nuclear material,” “source material,” and “byproduct material,” as well as other terms used in the statute, are defined in 42 U.S.C. § 2014.

<sup>6</sup> Significant nuclear cooperation includes the physical transfer of reactors, reactor components, or special nuclear material, source material, and byproduct material, under license for commercial, medical, and industrial purposes.

<sup>7</sup> The Atomic Energy Act also sets out procedures for licensing exports to states with whom the United States has nuclear cooperation agreements. (Sections 126, 127, and 128 codified as amended at 42 U.S.C. 2155, 2156, 2157) Even with a 123 agreement in place, each export of nuclear material, equipment or technology requires a specific export license or other authorization.

<sup>8</sup> See P.L. 99-183 and CRS Report RL33192, *U.S.-China Nuclear Cooperation Agreement*.

<sup>9</sup> See CRS Report RS22542, *Nuclear Fuel Reprocessing: U.S. Policy Development*.

## Nuclear Energy and Nonproliferation Cooperation

Pledging to accelerate nuclear energy cooperation, Presidents Bush and Putin established in July 2006 a working group<sup>10</sup> whose report defined an Action Plan for cooperation that led to the bilateral Presidential Declaration on Nuclear Energy and Nonproliferation of July 3, 2007.<sup>11</sup> U.S. and Russian officials have stated that a 123 agreement is needed in order to implement fully these goals— for example, full scale technical cooperation on fast reactors and demonstration of advanced spent fuel processing and waste management technologies.<sup>12</sup> Possible benefits to the United States from a 123 agreement with Russia include development of advanced nuclear fuel cycle technologies and a future generation of proliferation-resistant reactors<sup>13</sup>, joint commercial partnerships, influence over Russian nonproliferation and nuclear export policies, and improving bilateral cooperation generally.<sup>14</sup> A common argument in favor of the agreement is that the United States could gain from Russian work on reprocessing/advanced fuel cycle research. Since the United States does not operate fast neutron reactors or reprocess, testing of fuels developed under the GNEP program could be done in Russia, including post-irradiation examination. Supporters argue that U.S. partnership in developing these technologies could help ensure that “proliferation-resistance” remains a priority. Critics point out that the agreement risks entrenching the Bush Administration’s policy of accepting reprocessing as a necessary part of the future of nuclear energy (although a future administration and Congress would always have the ability to guide the pace and direction of these developments).

A 123 agreement could provide Russia with access to U.S. nuclear technologies and markets, the right to receive U.S.-origin nuclear materials into Russia for storage or processing, and an improved international image for its nuclear industry. The agreement might also be construed as U.S. approval for Russia’s civilian nuclear industry, thereby enabling Moscow to conclude similar agreements with other countries.<sup>15</sup> Russia could also expand its reach into new nuclear power markets by adding U.S. safety and automated control systems to its exported reactors, or partnering with U.S. multinationals.

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<sup>10</sup> “Joint Working Group on the Development of a Bilateral Action Plan to Enhance Global and Bilateral Nuclear Energy Cooperation,” [<http://www.doe.gov/news/4553.htm>]

<sup>11</sup> [<http://www.whitehouse.gov/news/releases/2007/07/20070703.html>]

<sup>12</sup> This effort would be part of GNEP and the multi-nation Generation IV initiative to develop the next generation of civil nuclear power reactors. Collaboration may also take place under the rubric of the IAEA International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO).

<sup>13</sup> A “proliferation-resistant” reactor is meant to make it more difficult to divert material for weapons use, and often refers to reprocessing technology that would not result in separated plutonium. See [<http://www.gnep.energy.gov/gnepProliferationResistantRecycling.html>]

<sup>14</sup> Richard Lugar and Sam Nunn, “Help Russia Help Us,” *New York Times*, May 30, 2008. [<http://www.nytimes.com/2008/05/30/opinion/30lugar.html?th&emc=th>]

<sup>15</sup> Some have criticized the agreement on this basis – that safety and environmental problems with the Russian nuclear industry remain and therefore it would be premature to give approval. Others counter that only through such an agreement will western safety technology and standards be available to Russia.

A 123 agreement could bolster the nonproliferation regime by promoting a nuclear energy framework that addresses emerging nuclear energy states' fuel needs while dissuading them from pursuing indigenous enrichment and reprocessing technologies. Proposals include the development of multilateral fuel assurances, international fuel service centers, and a new generation of "proliferation-resistant" reactors. Russia has set up the joint venture International Uranium Enrichment Center at Angarsk, which is to be under international safeguards, and is discussing options for hosting an international fuel bank at the site as well. The United States may choose to join the Angarsk consortium in order to have more input into its management, but a section 123 agreement with the United States is not necessary for Russia to proceed with these efforts, unless the United States transfers nuclear material or equipment.

Additionally, a 123 agreement would allow for Russian reprocessing of U.S.-origin spent fuel from third countries (although Russia has not yet decided to do this) or long-term spent fuel storage of such material in Russia.<sup>16</sup> The enrichment of U.S.-obligated reprocessed uranium, and the re-enrichment of U.S. uranium tails or U.S.-origin tails, using Russian enrichment facilities, would also require a 123 agreement.<sup>17</sup> There appears to be interest by Russia in establishing an International Spent Fuel Storage Facility (ISFSF) that could accept U.S.-origin fuel, for example from Taiwan or South Korea, or as part of a Russian fuel leasing and return program for future nuclear power plants abroad.<sup>18</sup> The U.S. may encourage a ISFSF in Russia as a way to prevent countries from pursuing reprocessing technologies.<sup>19</sup> Collaboration between the United States and Russia on providing nuclear fuel cycle services to non-nuclear weapon states could increase the confidence of these states in the services and therefore increase participation.

## U.S.-Russian Relations

The United States and Russia are at odds on a number of foreign policy issues, including the deployment of missile defense systems in Eastern Europe and the expansion of NATO.<sup>20</sup> In this context, cooperation with Russia on nonproliferation, nuclear terrorism prevention, and nuclear energy may have particular value for the bilateral relationship. U.S. Ambassador Burns' remarked at the May signing ceremony that the 123 agreement marks Washington and Moscow's transition from "nuclear rivals" to "nuclear partners." The timing of the agreement's signing, the day before Putin stepped down as Russian

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<sup>16</sup> Under Article 9 of the proposed agreement, the parties would have to agree before this occurred. According to the Atomic Energy Act, this would be considered a subsequent arrangement, under Section 131.

<sup>17</sup> Import of tailings to Russia from European countries was halted in 2007 due to public protest and environmental concerns. "Russia quits uranium tailings imports over safety concerns," *RIA Novosti*, June 22, 2007. Existing contracts will be fulfilled (two with URENCO until 2009, two with EURODIF until 2014).

<sup>18</sup> "Analysis: Storage needs for nuclear growth," *UPI Energy*, May 6, 2008.

<sup>19</sup> The Russian Duma passed a law in 2001 allowing for Russia to accept foreign spent fuel imports, but due to public opposition, Russian officials have stated that Russia does not now plan to import non-Russian-origin spent fuel for storage.

<sup>20</sup> See CRS Report RL33407, *Russian Political, Economic, and Security Issues and U.S. Interests*.

President, is also viewed by some as a culmination of bilateral cooperation between the Bush and Putin administrations.<sup>21</sup> Although a 123 agreement will not itself stipulate new programs or collaborative projects, it may have symbolic value and remove a long-time irritant in bilateral relations. Some critics argue that its symbolic value is a reason not to enact it at this time— it would be an undeserved reward for a Russian government critics view as anti-democratic and repressive, and whose foreign policy often has been at odds with U.S. interests. Some supporters counter by saying that rejecting the proposed cooperation agreement would embolden anti-U.S. sentiment in Russia and ultimately be counterproductive to other areas of cooperation important to U.S. national security.

## Russian Policy Toward Iran

During the Clinton Administration and the early Bush Administration, the United States had a policy not to conclude a civilian nuclear cooperation agreement with Russia while it was building a nuclear power reactor for Iran at Bushehr. After details about Iran's clandestine nuclear activities came to light during 2002-2006, Russia began to step up cooperation with the United States and other countries negotiating with Iran over its nuclear program. Additionally, Russia has insisted on IAEA safeguards on any transfers to Iran's civilian nuclear reactor at Bushehr, on condition that the resulting spent fuel will be returned to Russia, per a February 2005 agreement. Moscow has also invited Tehran to participate in its newly established international uranium enrichment center at Angarsk, as an alternative to an indigenous Iranian enrichment capability— an offer that Iran has rejected. The Bush administration has supported this approach and since 2002 no longer objects to Russia's building the Bushehr nuclear power plant in Iran. President Bush, most recently at the April 2008 summit in Sochi, has praised Russian President Putin for his "leadership" in offering a solution to the Iranian nuclear negotiations. Washington has had less success convincing Moscow to agree with its proposals for tougher sanctions on Iran in the UN Security Council, and Russia has been only reluctantly supportive of U.N. Security Council resolutions (UNSCRs) imposing more limited sanctions on Iran, preferring a primarily diplomatic solution to the crisis. However, President Putin has signed decrees to fully implement UNSCRs 1737, 1747, and 1803.<sup>22</sup>

The NPAS that accompanies the proposed US-Russia 123 agreement says that the United States “has received assurances from Russia at the highest levels that its government would not tolerate cooperation with Iran in violation of its UN Security Council obligations.” Reportedly, there may have been recent intelligence indicating that Russian entities have transferred sensitive nuclear technology to Iran. But this activity was ended by high-level Russian governmental intervention and assurances were given to the highest levels of the U.S. government.<sup>23</sup> This information may be included in the

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<sup>21</sup> Maria Danilova, “Officials: US, Russia to Sign Civil Nuclear Agreement,” *Associated Press*, May 6, 2008.

<sup>22</sup> “Medvedev Likely to Face Problems with Iran,” *RIA Novosti*, May 13, [http://en.rian.ru/analysis/20080513/107253545.html]

<sup>23</sup> “Prospects for a U.S.-Russian Agreement for Peaceful Nuclear Cooperation in Congress: Robert Einhorn and Jon Wolfsthal,” Remarks at the Carnegie Moscow Center, April 15, 2008 [http://www.carnegie.ru/en/news/78128.htm]

classified annex to the NPAS. Additionally, Russian entities may be continuing their ballistic missile-related transfers to Iran.<sup>24</sup>

Russian cooperation with Iran remains a potential obstacle to approval of the agreement by Congress. The 2006 Iran Freedom Support Act (P.L. 109-293) gives the sense of Congress that no nuclear cooperation agreement should be entered into with a country that is assisting the nuclear program of Iran. The Iran Counter-Proliferation Act of 2007 (HR1400), passed by the House, would prohibit any “agreement for cooperation between the United States and the government of any country that is assisting the nuclear program of Iran or transferring advanced conventional weapons or missiles to Iran.” Similarly, the Senate is considering S. 970 which specifically prohibits a 123 agreement with Russia until “Russia has suspended all nuclear assistance to Iran and all transfers of advanced conventional weapons and missiles to Iran” or “Iran has completely, verifiably, and irreversibly dismantled all nuclear enrichment-related and reprocessing-related programs.” The Security through Termination Of Proliferation Act of 2008 (H.R. 6178, introduced on June 4, 2008) includes similar provisions, including that a nuclear cooperation agreement with a country proliferating to Iran, North Korea or Syria may not enter into force. These bills, as well as letters sent to the President from Members of Congress after submittal of the 123 agreement to the Congress, show a continued linkage between Russia’s policies towards Iran and support for a bilateral civilian nuclear accord.

Some argue that maximum leverage has already been gained in coaxing Russian behavior on Iran in exchange for the signing of a 123 agreement, and that there will be opportunities in the future to exercise further leverage if necessary, since each transaction under a 123 agreement must be approved subsequently.<sup>25</sup> Supporters may also see the 123 agreement as a way to encourage Russia to continue pressing Iran on such issues as the Bushehr reactor’s fuel provisions. Some argue that engaging Russia on the scientific level would improve transparency, and could provide a deterrent to Russian technical cooperation with Iran. Possible consequences of Congress disapproving the agreement could be Russia pulling back from cooperation with the United States on Iran policy and nonproliferation goals. This could include decreased transparency at nuclear sites. It might affect the willingness of Russia to enter into future bilateral agreements, such as a future HEU-LEU blend-down agreement.

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<sup>24</sup> The 2006 Director of National Intelligence report to Congress on WMD Acquisition says that “Russian entities have supplied a variety of ballistic missile-related goods and technical know-how to China, Iran, India, and North Korea. Iran's earlier success in gaining technology and materials from Russian entities and continuing assistance by such entities, probably supports Iranian efforts to develop new longer-range missiles and increases Tehran's self-sufficiency in missile production.”

<sup>25</sup> Thomas Graham, “The Friend of My Enemy,” *National Interest Online*, April 1, 2008 [<http://www.nationalinterest.org/Article.aspx?id=17266>]; Einhorn, Gottemoeller, McGoldrick, Poneman, Wolfsthal, “The U.S.-Russian Civil Nuclear Agreement: A Framework for Cooperation,” CSIS, May 2008. [[http://www.csis.org/component?option=com\\_csis\\_pubs/task/view/id,4499/type,1/](http://www.csis.org/component?option=com_csis_pubs/task/view/id,4499/type,1/)]