

A U.S. Government Perspective: Trends in Bilateral Nuclear Cooperation Agreements

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The U.S.-Japan Nuclear Cooperation Agreement has come under the spotlight as we are approaching its expiration date in July 2018. Following President Eisenhower's advocacy for the peaceful use of nuclear energy in 1953, the U.S. formed bilateral nuclear cooperation agreements with various countries and has established an international support system in the field of nuclear energy. These nuclear cooperation agreements are closely related to security since they can lead partner nations to possess nuclear weapons, and debates continue in the country over the nature of such agreements as well as their impact on non-proliferation efforts. How did the U.S. government go about making these rules while promoting the peaceful use of nuclear energy around the world? This report will uncover the trends of the U.S. government in relation to bilateral nuclear cooperation agreements.

The history of 123 Agreements in the U.S.

Currently, the U.S. has bilateral nuclear cooperation agreements (commonly known as 123 Agreements) with over 20 countries. The conditions for such agreements, including the import and export of nuclear materials as well as the equipment and technology necessary for the operation of nuclear power plants, are prescribed under section 123 (Cooperation with Other Nations) of the U.S. Atomic Energy Act of 1954. Upon enactment of this law, 123 Agreements called for the peaceful use of nuclear energy aimed to strengthen alliances with partner nations, while the issue of nuclear security and non-proliferation was seen as a secondary factor. Nonetheless, following India's nuclear tests in May 1974, the U.S. feared that its partnering countries may modify their nuclear energy into military use. This led the country to establish the Nuclear Suppliers Group in 1975, which developed a control system for the export of nuclear materials in the international community.

Furthermore, the U.S. Atomic Energy Act was significantly revised in 1978, and nine clauses were established to standardize nuclear non-proliferation requirements. Accordingly, partner nations must now

conclude 123 Agreements with the U.S. even when they are exporting U.S.-produced nuclear materials or related equipment. Uranium enrichment and reprocessing of spent nuclear fuel in each country are also forbidden without Washington's consent. In this way, 123 Agreements have become an important framework for the U.S. to promote non-proliferation principles while cooperating with other nations.

The Bush Administration's "Golden Standard" and a Promise Towards Non-Proliferation

In 2005, the Bush administration announced that it would engage in nuclear cooperation with India, whose economy had achieved high growth at that time. According to the U.S. Atomic Energy Act, the export of nuclear-related equipment and technology to India, which was not a member of the Nuclear Non-Proliferation Treaty (NPT), was prohibited. Nonetheless, the Bush administration established the Henry Hyde U.S.-India Peaceful Atomic Energy Cooperation Act in December 2006, and a special nuclear cooperation agreement was created between the U.S. and India. India consequently made a concession that placed nuclear facilities, intended for peaceful use, under International Atomic Energy Agency (IAEA) safeguards (which applied to 14 out of 22 nuclear power plants that were operational or under construction). Eight plants, however, remained with the potential for military use. Furthermore, the U.S.-Indian Nuclear Cooperation Agreement, agreed upon in July 2017, permitted the reprocessing of spent nuclear fuel, which resulted in the international community criticizing the U.S. for giving precedence to economic benefit over its non-proliferation policy.

However, in the 123 Agreement concluded in 2009 between the U.S. and the United Arab Emirates (UAE), the renunciation of uranium enrichment and reprocessing in the UAE was stipulated as a legal obligation, and the conditions changed significantly. The Bush administration that proceeded with the negotiations called this clause "the golden standard" and declared it to be the new standard for bilateral nuclear cooperation agreements. This was in stark contrast to the relatively lenient agreement with India, as well as to the cooperation efforts with Japan and the European Atomic Energy Community (EURATOM), that permitted uranium enrichment and reprocessing under certain conditions. In past agreements, if countries wanted to engage in enrichment and reprocessing, all they needed was a consent from the U.S. Besides, the requirements set by the golden standard were not included in the U.S. Atomic Energy Act. The application of the new clause was therefore regarded as a ground-breaking step forward for those who had sought non-proliferation. Influential members of the U.S. Congress and non-proliferation experts supported the golden standard and appealed to the government to make the renunciation of enrichment and reprocessing a condition in negotiating future agreements.

The Obama Administration's Dilemma - "A Realistic Approach" to 123 Agreements

Meanwhile in the Obama administration, the Department of Energy Deputy Secretary of Energy, Daniel Poneman, and the State Department Deputy Secretary of State, Ellen Tauscher, issued a letter dated 10 January 2012 to the House and Senate committees on foreign relations advocating a case-by-case policy in negotiating nuclear cooperation agreements. Such policy would consider the partner nation's legal, political, and economic background, as well as proliferation concerns, when negotiating cooperation agreements. As the Obama administration supported the application of the golden standard in its nuclear cooperation with the Middle East, the U.S. set the U.S.-UAE cooperation as a model case upon concluding 123 Agreements with other Middle Eastern countries. After three years of internal debate, however, the Obama administration in the end chose a case-by-case approach as a practical and realistic policy in negotiating nuclear cooperation with other countries.

The U.S. nuclear industry opposed the application of the golden standard fearing the decline of its competitiveness in the international nuclear market. On the other hand, many lawmakers and experts harshly criticized the Obama administration's policy. The New York Times and the National magazine condemned the administration's approach in editorials, and on 14 February 2012, 20 non-proliferation experts submitted a letter to President Obama suggesting the prohibition of uranium enrichment and reprocessing in all future agreements with non-nuclear powers. Conservative John Bolton, who served in the Bush administration as Secretary of State (Arms Control and International Security), and an anti-nuclear liberal, Edward Markey (Democratic Party, State of Massachusetts), co-authored an editorial in The Christian Science Monitor magazine, warning that the Obama administration's policy sacrificed U.S. and international security in exchange of profits for the nuclear industry. They also urged to introduce a bill for more strict congressional reviews for 123 Agreements that fall outside of the golden standard.

In response to this criticism, Thomas Countryman, who served in the Obama administration as U.S. Assistant Secretary of State (Security and Non-Proliferation), stated in 2012 that the U.S. would continue to thoroughly address nuclear non-proliferation, but the implementation of the golden standard was not the only option. As another countermeasure against nuclear proliferation, he mentioned the Nuclear Suppliers Group's 2011 amendment of its guidelines related to the exportation of enrichment and reprocessing. The Obama administration perceived two disadvantages in being the only country endorsing the golden standard. One was the possibility of new agreements fading, when the U.S. nuclear industry was already being driven into a predicament due to its losing competitiveness to Russia and China. Another disadvantage that concerned the administration was the dwindling influence that the U.S. held over non-proliferation. Based on these points, the Obama administration chose a more flexible case-by-case policy, despite being criticized by the U.S. Congress and other experts.

The Trump Administration Disruption of Non-Proliferation Efforts — Negotiating a Nuclear Agreement with Saudi Arabia

Since emerging in 2017, the Trump administration has attracted attention from around the world regarding its nuclear cooperation with other countries. The administration in February 2018 began formal 123 Agreement negotiations with Saudi Arabia and there were varying opinions on whether or not to apply the golden standard to the new agreement. In the meantime, Saudi Arabia has explored the use of nuclear energy in diversifying its energy sources instead of depending on oil alone. The kingdom had promised to rely on international markets for nuclear fuel and not pursue nuclear technologies in the May 2008 U.S.-Saudi Arabia Memorandum of Understanding on Nuclear Energy Cooperation. Yet a report issued by the World Nuclear Association in May 2018 revealed that Saudi Arabia was planning to build 16 nuclear power reactors over the next 20–25 years at a cost of more than \$80 billion.

The U.S. government is hoping for Saudi Arabia to purchase its nuclear technology, and accordingly, Secretary of Energy Rick Perry visited the kingdom early in December 2017. This led to the official negotiation of the 123 Agreement in February 2018, where Secretary Perry claimed that if the U.S. does not cooperate, Saudi Arabia will choose Russia and China as their partners in the field of nuclear energy. Since Saudi Arabia had already procured French and Russian commercial nuclear power plants with relatively lenient non-proliferation requirements, the U.S. nuclear industry wanted to work with Saudi Arabia to protect its dominance in the international market.

From a non-proliferation standpoint, however, if Saudi-opposing Iran manufactures nuclear weapons, there is a possibility of Saudi Arabia proceeding with nuclear development for military use. For that reason, the new agreement must be based on the principle of non-proliferation. In fact, Saudi Arabia has expressed interest in uranium enrichment and reprocessing, and in March 2013, Prince Mohammad claimed that, “if Iran develops nuclear weapons, Saudi Arabia will follow suit as soon as possible.” Concerns were raised in the U.S., and the aforementioned Senator Markey issued a statement saying that the Prince’s remarks confirm suspicions that Saudi Arabia is seeking nuclear energy not only for electrical power, but also for geopolitical power.

Unsurprisingly, the U.S. government also wanted to incorporate the golden standard into the agreement. In November 2017 before official negotiations began, Christopher Ford, then Special Assistant to the President and Senior Director for Weapons of Mass Destruction and Counter-Proliferation on the White House National Security Council, stated that from a non-proliferation standpoint, it was desirable to apply the golden standard in the U.S. nuclear cooperation with Saudi Arabia. Saudi Arabia was still reluctant to implement the clause, leading many experts to worry that the Trump administration, in need of Saudi oil money, would be rushing the conclusion of the agreement and consequently alleviate non-proliferation requirements.

The nuclear cooperation negotiations between the U.S. and Saudi Arabi have resulted in unanticipated consequences for Japan. In April 2018, a U.S. energy policy official expressed fears over Japan’s nuclear fuel cycle and claimed that the country must seek proper management of plutonium in order to explain its unique position to Saudi Arabia, Iran, and China. Just as South Korea did during the negotiations that ended in the conclusion of the 2015 U.S.-South Korea Nuclear Cooperation Agreement, Saudi Arabia may question the U.S. in solely permitting Japan to reprocess its nuclear fuels, and the kingdom may even demand its rights to reprocessing.

Aiming to revitalize the nuclear industry in the U.S., President Trump is currently reviewing the country’s civil nuclear policies. As negotiations continue, experts have raised concerns over how these negotiations may have adverse effects on a nuclear arms race in the Middle East. The outcome of such negotiation will indicate the Trump administration’s direction on the problem of international nuclear security. Furthermore, how will the U.S. go about creating a framework for nuclear cooperation agreements with other countries, while the circumstances of international nuclear proliferation change, as in the case of the North Korea? We will continue to follow the trends of the U.S. in bilateral nuclear cooperation agreements, as the country casts significant influence on the nuclear policies of many countries including Japan.