

4.3 – Congressional Research Service Report: AUKUS Nuclear Cooperation

December 11, 2021

This Congressional Research Service (CRS) report explains the substance of the “Agreement between the Government of the United States of America, the Government of Australia, and the Government of the United Kingdom of Great Britain and Northern Ireland (the “United Kingdom”) for the Exchange of Naval Nuclear Propulsion Information,” as well as provisions of the Atomic Energy Act (AEA) of 1954, as amended (P.L. 83-703; 42 U.S.C. §§2153 et seq.), concerning the content and congressional review of such agreements.



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AUKUS Nuclear Cooperation

On December 1, 2021, President Joseph Biden submitted to Congress an “Agreement among Australia, the United Kingdom, and the United States for the Exchange of Naval Nuclear Propulsion Information.” This In Focus explains the agreement’s substance, as well as provisions of the Atomic Energy Act (AEA) of 1954, as amended (P.L. 83-703; 42 U.S.C. §§2153 et seq.), concerning the content and congressional review of such agreements.

An accompanying message to Congress explains that the agreement would permit the three governments to “communicate and exchange Naval Nuclear Propulsion Information and would provide authorization to share certain Restricted Data as may be needed during trilateral discussions” concerning a project to develop Australian nuclear-powered submarines. This project is part of an “enhanced trilateral security partnership” named AUKUS, which the three governments announced on September 15, 2021. The United States has a similar nuclear naval propulsion arrangement only with the United Kingdom pursuant to the bilateral 1958 Mutual Defense Agreement.

The partnership’s first initiative, according to a September 15 Joint Statement, is an 18-month study “to seek an optimal pathway to deliver” this submarine capability to Australia. This study is to include “building on” the U.S. and UK nuclear-powered submarine programs “to bring an Australian capability into service at the earliest achievable date.” The study is “in the early stages,” according to a November 2021 non-paper from Australia, the United Kingdom, and the United States, which adds that “[m]any of the program specifics have yet to be determined.”

Agreement Details

The agreement, which the governments signed on November 22, 2021, permits each party to exchange “naval nuclear propulsion information as is determined to be necessary to research, develop, design, manufacture, operate, regulate, and dispose of military reactors.” As noted, this information includes restricted data; the AEA defines such data to include “all data concerning ... the use of special nuclear material in the production of energy.” The AEA and 10 C.F.R. Part 810.3 define special nuclear material as plutonium, uranium-233, or enriched uranium.

The agreement, which entered into force on February 8, 2022, is to remain in force until December 31, 2023, when it will “automatically extend for four additional periods of six months each.” Any party may terminate its participation in the agreement with six months written notice. Should any party abrogate or materially violate the agreement, the other parties may “require the return or destruction” of any transferred data.

The agreement includes provisions to protect transferred data. For example, no party may communicate any information governed by the agreement to any “unauthorized persons or beyond” the party’s “jurisdiction or control.” In addition, a recipient party communicating such information to nationals of a third AUKUS government must obtain permission from the originating party. The agreement includes an appendix detailing “security arrangements” to protect transferred information.

Related Nuclear Cooperation Agreements

The AEA authorizes and contains requirements for nuclear cooperation agreements governing both civil and military applications. The United States has nuclear cooperation agreements with both Australia and the United Kingdom that are relevant to the AUKUS agreement. The United Kingdom is a nuclear-weapon state under the nuclear Nonproliferation Treaty (NPT); Australia is not a nuclear-weapon state.

Civil Nuclear Cooperation Agreements

The United States and Australia first concluded a civil nuclear cooperation agreement in 1957. Those governments updated that agreement in 1979 and renewed it in 2010. Australia sells around 36% of its \$1 billion in uranium exports to the United States. The United States is also a major processor of Australian uranium sold to other countries. Australia does not currently possess any nuclear power plants, but it operates one research reactor. This agreement “specifically prohibits the transfer of restricted data under it,” as well as “sensitive nuclear technology, sensitive nuclear facilities and major critical components.”

As a nonnuclear-weapon state under the NPT, Australia has a comprehensive International Atomic Energy Agency (IAEA) safeguards agreement. Such agreements, according to the agency, are designed “to provide credible assurance to the international community that nuclear material and other specified items are not diverted from peaceful nuclear uses.”

The 1958 U.S. nuclear cooperation agreement with the European Atomic Energy Community (Euratom), renewed in 1995, provided the legal framework for civilian nuclear cooperation between the United States and United Kingdom. In anticipation of the latter’s withdrawal from the European Union (EU), and its legal association with Euratom, the two governments concluded a bilateral nuclear cooperation agreement in 2018. Following the required congressional review period, the new agreement entered into force on December 31, 2020, after the UK withdrawal from the EU. The agreement is to remain in force for 30 years.

US-UK Mutual Defense Agreement

The Atomic Energy Act of 1946 (P.L. 79-585) restricted the sharing of nuclear weapons information with foreign governments, including the United Kingdom. However, an October 1957 Declaration of Common Purpose issued by President Dwight Eisenhower and UK Prime Minister Harold MacMillan stipulated that Eisenhower would request Congress to amend the Atomic Energy Act “as may be necessary and desirable to permit” bilateral nuclear cooperation. (For more information, see CRS Insight IN11762, *New Developments in the United States’ Strategic and Defense Ties with Australia*, by Bruce Vaughn.) Congress adopted an amendment to the Atomic Energy Act in 1958 (P.L. 85-479) authorizing U.S. government transfer to foreign governments of information, as well as certain components, related to nuclear weapons. This amendment also authorizes the export of nuclear reactors and related information for naval propulsion.

In 1958, the United States and United Kingdom concluded the U.S.–UK Mutual Defense Agreement (MDA). The United States subsequently transferred a nuclear plant and associated reactor fuel to the United Kingdom for use in a submarine. The agreement, which the two parties amended in 2014, “provides the necessary requirements for the control and transmission of submarine nuclear propulsion technology, atomic information and material between the UK and US, and the transfer of non-nuclear components to the UK.” The 2014 amendment extended the MDA until 2024.

Atomic Energy Act Requirements

The AEA includes requirements for the content of nuclear cooperation agreements, related presidential determinations and other supporting information for submission to Congress, conditions affecting the implementation of an agreement, and procedures for Congress to consider and approve the agreement. (For more information, see CRS Report RS22937, *Nuclear Cooperation with Other Countries: A Primer*, by Paul K. Kerr and Mary Beth D. Nikitin.)

Section 144 c. (2): Military Nuclear Reactor Data

This section permits the Nuclear Regulatory Commission and Department of Defense, with presidential authorization, “to communicate or exchange with that nation Restricted Data concerning research, development, or design, of military reactors.” The President must determine that “the proposed cooperation” and data communication “will promote and will not constitute an unreasonable risk to the common defense and security.”

Section 123

AEA section 123 contains provisions governing nuclear cooperation agreements’ content, as well as associated congressional review procedures. Section 123 a. states that the proposed agreement is to include the terms, conditions, duration, nature, and scope of cooperation and lists

mandatory criteria for the agreement. This section mandates that nuclear cooperation agreements pursuant to AEA section 144 c. (2) contain

- a guarantee that safeguards on transferred nuclear material and equipment continue in perpetuity;
- a provision requiring the application of comprehensive IAEA safeguards to be applied in nonnuclear-weapon states;
- a prohibition on the retransfer of material or restricted data without U.S. consent;
- a requirement that the recipient state maintain physical security on transferred nuclear material;
- a prohibition on the recipient state’s use of transferred items or technology for any nuclear explosive device or for any other military purpose; and
- a provision specifying the U.S. right to demand the return of transferred nuclear materials and equipment, as well as any special nuclear material produced through their use, if the cooperating state detonates a nuclear explosive device or terminates or abrogates an IAEA safeguards agreement.

Section 123 d. specifies the procedure for congressional approval of agreements such as the AUKUS agreement.

Congress has the opportunity to review a nuclear cooperation agreement for 60 days of continuous session. The President must submit the text of the proposed agreement, along with required supporting documents, to the House Foreign Affairs Committee, the Senate Foreign Relations Committee, and the House and Senate Armed Services Committees. The agreement may enter into force after the end of the 60-day period unless, during that time, Congress adopts a joint resolution disapproving the agreement and the resolution becomes law.

At the beginning of this 60-day period, joint resolutions of approval or disapproval, as appropriate, are to be automatically introduced in each house. During this period, the committees are to hold hearings on the proposed agreement and “submit a report to their respective bodies recommending whether it should be approved or disapproved.” If no committee has reported the requisite joint resolution of approval or disapproval by the end of 45 days, it is automatically discharged from further consideration of the measure. After the joint resolution is reported or discharged, Congress is to consider it under expedited procedures, as established by Section 130 i. of the AEA.

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