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## Nuclear Cooperation: Part 810 Authorizations

Secretary of Energy Rick Perry told Congress in late March that he had approved Part 810 authorizations for Saudi Arabia. Under U.S. law, nuclear-related exports require an export license or other authorization. The Atomic Energy Act (AEA) of 1954, as amended (P.L. 83-703; 42 U.S.C. §2153 et seq.), requires a peaceful nuclear cooperation agreement (known as a “123” agreement after the relevant section of the AEA) for the export of commodities under Nuclear Regulatory Commission (NRC) export licensing authority (10 C.F.R. 110). These include nuclear reactors and U.S.-origin special nuclear material, which the regulation defines as plutonium, uranium-233, or enriched uranium. The AEA also requires a 123 agreement for exports involving “restricted data,” defined as “all data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy.” (For more information about 123 agreements, see CRS Report RS22937, *Nuclear Cooperation with Other Countries: A Primer*.)

### Part 810 Authorizations

Section 57.b.(2) of the AEA allows for limited forms of nuclear cooperation related to the “development or production of any special nuclear material outside of the United States” if that activity has been authorized by the Secretary of Energy following a determination that it “will not be inimical to the interest of the United States.” Such authorizations are known as “Part 810 authorizations” after 10 C.F.R. Part 810, which describes “generally authorized” activities and activities that require the Secretary of Energy’s “specific authorization.” Some activities are “generally authorized” only for certain “generally authorized destinations.” “Generally authorized activities” are not to involve sensitive nuclear technology, which 10 C.F.R. Part 810.3 defines as any information unavailable to the public “which is important to the design, construction, fabrication, operation, or maintenance” of certain proliferation-sensitive facilities.

#### Generally Authorized Activities

In addition to activities by persons conducting work for the IAEA, 10 C.F.R. Part 810.6 generally authorizes the following activities:

- “engaging directly or indirectly in the production of special nuclear material at facilities in countries or with entities” that are generally authorized destinations;
- transferring, under certain conditions, technology to foreign nationals of countries that are not generally authorized destinations if such nationals are working at an NRC-licensed facility;

- engaging in specified safety and emergency response activities at International Atomic Energy Agency (IAEA)-safeguarded or NRC-licensed nuclear facilities;
- participating in State Department-approved exchange programs “in consultation with DOE”;
- implementing the U.S.-IAEA safeguards agreement;
- extracting, under certain conditions, Molybdenum-99 for medical use.

Part 810 authorizations are not required for NRC-licensed exports of components and materials and do not require the United States to have a 123 agreement with the recipient’s government. However, 10 C.F.R. Part 810.9 includes the existence of a 123 agreement as a factor for the Secretary of Energy to consider when determining that a specifically authorized activity “will not be inimical to the interest [sic] of the United States.” Moreover, the list of “generally authorized destinations” is “based principally on the United States agreements for civil nuclear cooperation,” according to guidance from the National Nuclear Security Administration (NNSA).

#### Activities Requiring Specific Authorization

The following activities require specific authorization:

- activities listed in 10 C.F.R. Part 810.2(b) with any foreign entity that is not a generally authorized destination;
- providing “sensitive nuclear technology to any foreign country or entity”; or
- engaging in or assisting with a subset of the activities listed in Part 810.2(b) if such engagement or assistance involves a foreign country or certain foreign nationals.

#### Content

Part 810 authorizations cover transfers of technology, defined by 10 C.F.R. Part 810.3 as “assistance or technical data required for the development, production or use of any plant, facility, or especially designed or prepared equipment” for a number of nuclear activities related to development or production of any special nuclear material; these activities are listed in 10 C.F.R. Part 810.2(b). Part 810 regulations define assistance to include “instruction, skills, training, working knowledge, [and] consulting services,” all of which “may involve the transfer of technical data.” According to the regulations, technical data may be

in such forms as blueprints, plans, diagrams, models, formulae, engineering designs, specifications, manuals, and instructions written or recorded on other media or devices such as disks, tapes, read-only memories, and computational methodologies, algorithms, and computer codes

that can directly or indirectly affect the production of special nuclear material.

No Part 810 authorizations may permit “any activity ... intended to provide assistance in designing, developing, fabricating, or testing a nuclear explosive device.”

#### Specific Part 810 Authorization Factors

According to 10 C.F.R. Part 810.9, the Secretary of Energy, in the course of determining if a specific authorization will be inimical to the U.S. interest, must “take into account” several factors, including whether the recipient country has a 123 agreement with the United States and is a party to the nuclear Nonproliferation Treaty (NPT) in compliance with its attendant obligations.

The Secretary of Energy must also take into account

- whether “other nonproliferation controls or conditions exist on the proposed activity”;
- the significance of the transfer “relative to” the country’s “nuclear capabilities”;
- whether the “transferred technology is part of an existing cooperative enrichment enterprise or the supply chain of such an enterprise”;
- the “availability of comparable assistance or technology from other sources”; and
- “other factors that may bear upon” U.S. “political, economic, competitiveness, or security interests.”

The Secretary of Energy may authorize activities “related to the enrichment of source material and special nuclear material” if the recipient’s government provides written nonproliferation assurances and the recipient agrees to specific security and nonproliferation measures. For Part 810 authorizations involving sensitive nuclear technology, the Secretary of Energy must also take into account a number of other nonproliferation, nuclear safety, and nuclear security factors concerning the recipient country’s government.

#### Process

The Secretary may issue the AEA-mandated determination that a proposed activity “will not be inimical” to U.S. interests only after the Secretary receives the Department of State’s concurrence and after consulting with the NRC and the Departments of Commerce and Defense. NNSA assigns applications for Part 810 authorizations to an Export Control Action Officer, who analyzes the application’s information and then, according to NNSA,

obtains an independent DOE laboratory technical review of the proposed transfer; prepares a technical analysis recommending approval or denial; and obtains DOE/NNSA internal legal and policy approval of the preliminary analysis.

Following this process, the officer “transmits the relevant information,” as well as DOE’s recommendation, to the relevant agencies for consultation and concurrence. As part of its review and approval process, the State Department obtains, if necessary, “written nuclear nonproliferation assurances” from the relevant foreign government. After receiving the State Department’s concurrence and input from the other agencies as described above, the officer,

according to NNSA, “prepares the final package for approval by DOE/NNSA staff and the Secretary of Energy.”

#### Congressional Role

Congress does not review Part 810 authorizations, but U.S. law contains several congressional notification requirements. Section 3136(e) of the National Defense Authorization Act for Fiscal Year 2016 (2016 NDAA; P.L. 114-92) requires the Secretary of Energy to submit an annual report of DOE’s review of applications for Part 810 authorizations. The report is to include the number of applications and granted authorizations during the previous year, the length of time for reviewing each application, and a “description of efforts to streamline the review of such applications.” Section 3136 of the 2016 NDAA also contains a number of reporting requirements that apply only to Part 810 authorizations with China and Russia. On April 10, 2019, Senator Edward Markey introduced S. 1127, which would amend the AEA to require the Secretary of Energy to submit periodic reports to Congress describing Part 810 authorizations issued by the Secretary.

Section 123e of the AEA requires the President to keep the Senate Committee on Foreign Relations and the House Committee on Foreign Affairs “fully and currently informed of any initiative or negotiations relating to a new or amended agreement for peaceful nuclear cooperation.” Section 303a of the same law requires the Secretary of Energy and the NRC to keep the Senate and the House committees of jurisdiction “fully and currently informed with respect to the activities of the Secretary and the Commission.”

Part 810.9 provides that DOE may give a copy of a specific Part 810 authorization “to any person requesting it at DOE’s Public Reading Room.” However, DOE does not make public an authorization if “the applicant submits information demonstrating that public disclosure will cause substantial harm to its competitive position.” Some information about seven Part 810 authorizations issued by Secretary Perry for exports to Saudi Arabia has “not been made public because the companies determined that the authorizations contain proprietary business information,” a March 28, 2019, Department of Energy press statement explained. Section 57b of the AEA states that

[a]ny trade secrets or proprietary information submitted by any person seeking an authorization under this subsection shall be afforded the maximum degree of protection allowable by law.

AEA Section 303b requires any government agency to “furnish any information requested” by the Senate and the House committees of jurisdiction “with respect to the activities or responsibilities of such agency in the field of nuclear energy” within their jurisdiction.

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