



Commerce Controls and the Nuclear Power Industry

presented by

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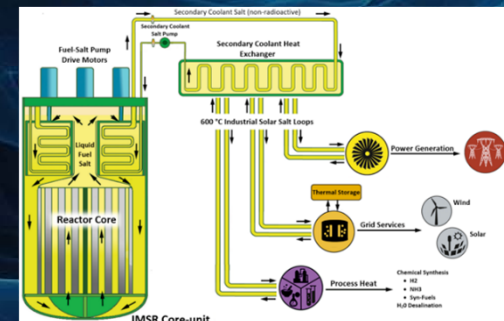
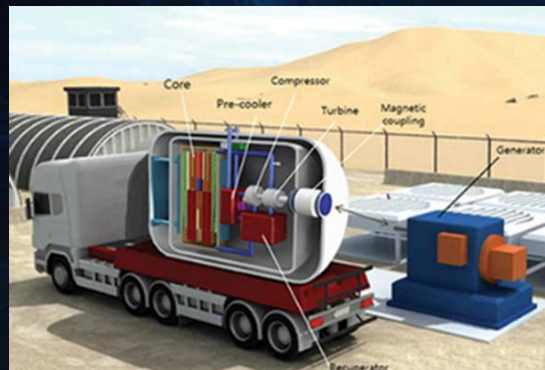
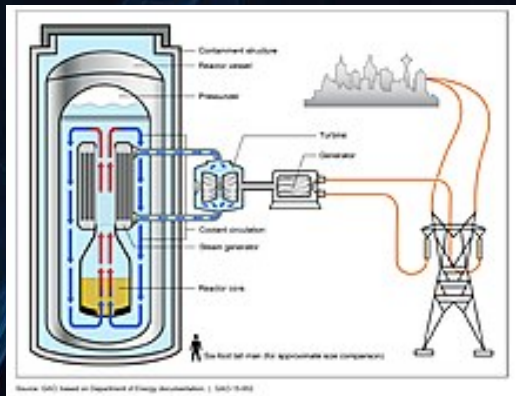


Commerce Jurisdiction (nuclear power related items)

- Balance of plant – turbines, generators, switching gear, pipes and valves
- Health and safety equipment – radiation detection and monitoring, fire safety, facility security
- General infrastructure, telecommunications, tools and maintenance equipment
- Materials and Manufacturing Equipment

What about Advanced Reactor?

- Are current export controls broad enough to capture new reactor technologies?
- Are there any new materials, or dual use components that need to be added?





Common Nuclear Power-related ECCNs

- 2A290 (NP2, AT1) – Generators, turbines, heat exchangers designed or intended for use in a nuclear reactor
- 2A291 (NP2, AT1) – Process controls systems and parts/components specially designed for use in nuclear power plants
- 1C234 (NP1, AT1) – Zirconium with low hafnium content – metal, alloys, compounds, manufactured parts



The EAR and The CCL

- The Export Administration Regulations (EAR) list the items (includes software and technology) controlled in the Commodity Control List (CCL)
- Items are well defined with technical parameters and reasons for controls
- License Requirements for the same item may vary based on final destination or end use.



End Use Restrictions Apply

- Section 744.2 (Catch-All /EPCI)
- Restricted end uses
 - Nuclear Explosive Activities
 - Unsafeguarded Nuclear Activities
 - Specific Nuclear Activities
 - Heavy Water Production, Isotope Separation....

§ 744.2 RESTRICTIONS ON CERTAIN NUCLEAR END-USES

(a) General prohibition

In addition to the license requirements for items specified on the CCL, you may not export, reexport, or transfer (in-country) to any destination, other than countries in Supplement No. 3 to this part, an item subject to the EAR without a license if, at the time of export, reexport, or transfer (in-country) you know¹ that the item will be used directly or indirectly in any one or more of the following activities described in paragraphs (a)(1), (a)(2), and (a)(3) of this section:

(1) **Nuclear explosive activities.** Nuclear explosive activities, including research on or development, design, manufacture, construction, testing or maintenance of any nuclear explosive device, or components or subsystems of such a device.^{2 3}

(2) **Unsafeguarded nuclear activities.** Activities including research on, or development, design, manufacture, construction, operation, or maintenance of any nuclear reactor, critical facility, facility for the fabrication of nuclear fuel, facility for the conversion of nuclear material from one chemical form to another, or separate storage installation, where there is no obligation to accept International Atomic Energy Agency (IAEA) safeguards at the relevant facility or installation when it contains any source or special fissionable material (regardless of whether or not it contains such material at the time of export), or where any such obligation is not met.

(3) **Safeguarded and unsafeguarded nuclear activities.** Safeguarded and unsafeguarded nuclear fuel cycle activities, including research on or development, design, manufacture, construction, operation or maintenance of any of the following facilities, or components for such facilities:⁴

(i) Facilities for the chemical processing of irradiated special nuclear or source material;

(ii) Facilities for the production of heavy water;

(iii) Facilities for the separation of isotopes of source and special nuclear material; or

(iv) Facilities for the fabrication of nuclear reactor fuel containing plutonium.



Implementation

- “Knows” provision
- “Is Informed” provision
- “U.S. Persons” provision
- Crossover provision



Entity List

Entities known to be involved in proliferation or other activities contrary to US foreign policy or national security interests are included on the Entities List, which requires a license when exporting where one otherwise would not be needed



COUNTRY	ENTITY	LICENSE REQUIREMENT	LICENSE REVIEW POLICY	FEDERAL REGISTER CITATION
PAKISTAN	<p>Pakistan Atomic Energy Commission (PAEC), a.k.a., the following alias:</p> <p>-Power Plant Workshops,</p> <p>P.O. Box 1114, Islamabad;</p> <p>and the following three subordinate entities:</p> <p>-National Development Complex (NDC), a.k.a., the following two aliases:</p> <p>-National Development Centre; <i>and</i></p> <p>-National Defense Complex,</p> <p>Fateh Jang, Punjab, Rawalpindi, Pakistan; <i>and</i> P.O. Box 2216, Islamabad, Pakistan;</p> <p>-Pakistan Institute for Nuclear Science and Technology (PINSTECH),</p> <p>Nilore, Islamabad;</p> <p>-Nuclear reactors (including power plants), fuel reprocessing and enrichment facilities, all uranium processing, conversion and enrichment facilities, heavy water production facilities and any collocated ammonia plants.</p>	For all items subject to the EAR.	Case-by-case for all items listed on the CCL. Presumption of approval for EAR99 items.	63 FR 64322, 11/19/98. 65 FR 14444, 03/17/00. 66 FR 50090, 10/01/01. 77 FR 58006, 9/19/12.



Russia and China Issues

- Nuclear Sector is Trade Possible?
- Entity List Additions
 - China General Nuclear Power Group (and others)
- CBW Act Sanctions
 - Includes the denial of NP controlled items
- 744.21 Military End Use/User (MEU)
 - One more list to know



QUESTIONS ?

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