



NRC Export/Import Licensing 10 CFR Part 110

Lauren Mayros
International Policy Analyst
Export Controls and Nonproliferation Branch
Office of International Programs

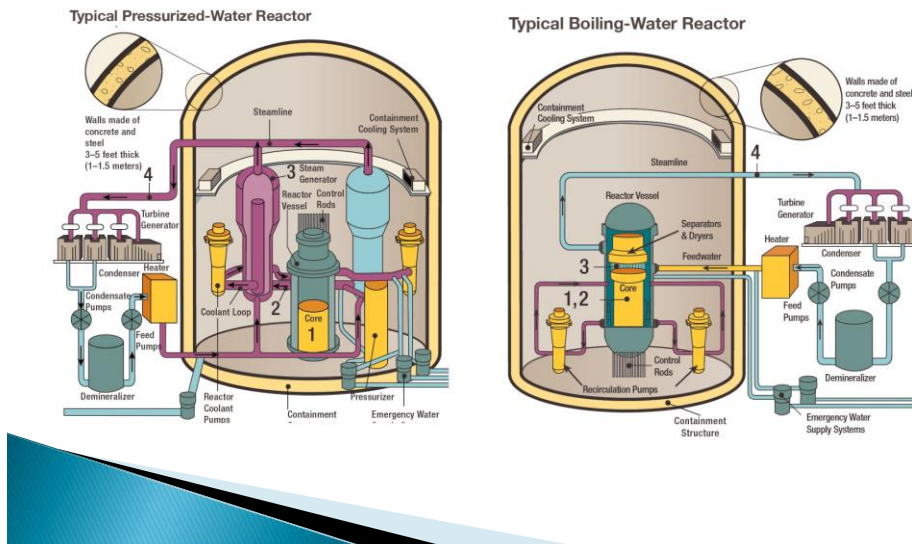
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NRC Jurisdiction

- ▶ **Legal Basis:**
 - Atomic Energy Act of 1954
 - Nuclear Non-Proliferation Act of 1978
 - Treaties, Conventions and Agreements
- ▶ **Exports:** reactors; fuel cycle facilities; components; nuclear grade graphite for nuclear end use; deuterium; source, special nuclear and byproduct materials including when contained in spent fuel or radioactive waste
- ▶ **Imports:** reactors; fuel cycle facilities; source, special nuclear and byproduct materials including when contained in spent fuel or radioactive waste

Nuclear Reactors & Especially Designed or Prepared Equipment



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If Subject to NRC Jurisdiction

- ▶ All exports and imports of NRC-controlled commodities (materials and equipment) must be authorized by either:
 - An NRC **general** export or import license or
 - An NRC **specific** export or import license or
 - An exemption from NRC requirements for a specific or a general license which may be granted in response to an application requesting an exemption or issued on NRC's initiative

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NRC General Licenses

- ▶ Are issued in 10 CFR 110 after rulemaking and coordination with the Executive Branch
- ▶ Are not exemptions (or NLRs)
- ▶ Authorize exports (10 CFR 110.21–110.26) of small quantities of uranium, plutonium, tritium and minor reactor components to specified countries
- ▶ Authorize imports (10 CFR 110.27) of major reactor components, source, special nuclear and/or byproduct materials to authorized recipients
- ▶ Require record keeping and, for certain exports, filing **annual reports** to the NRC



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NRC General Licenses

- ▶ Do not authorize exports to embargoed countries, i.e., a specific license is required for exports to:

Cuba	Iran	Iraq	North Korea
Syria	Sudan		

- ▶ Authorize limited exports to restricted destinations – a specific license may be required:

Afghanistan	Andorra	Angola	Burma
Djibouti	India	Israel	Libya
Pakistan	South Sudan		



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NRC Specific Licenses – Review Process

- ▶ All NRC Form 7 applications made public in ADAMS
- ▶ Some require Federal Register notices
- ▶ Interested parties have up to ~30 days to respond
- ▶ Processing fee ranging from \$1,300 to \$17,700 depends on level of review required (proliferation significance of commodity)
 - Most require interacting with foreign governments and some form of NRC Program Office review
 - Some require review by interested Executive Branch agencies, coordinated by Department of State
 - Some require review and approval by Commissioners

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Criteria for “Major” Exports (XSNM, XSOU, XR)

- ▶ Agreement for Cooperation (123 Agreement)
- ▶ Full-scope IAEA safeguards in recipient non-nuclear weapon states (NNWS)
- ▶ USG must obtain assurances from the foreign government on case-by-case basis that material or equipment will be made subject to 123 Agreement with respect to:
 - No nuclear explosive use or R&D on any nuclear explosive device
 - Adequate physical security will be maintained
 - No retransfer or alteration in form (reprocessing) without prior USG consent
- ▶ Not inimical to common defense and security
- ▶ For XR, not an unreasonable risk to the public health and safety of the U.S.

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Criteria for “Minor” Exports (XCOM, XMAT)

- ▶ USG must obtain assurances from the foreign government on case-by-case basis that:
 - IAEA (full-scope) safeguards will apply in NNWS
 - No nuclear explosive use or R&D on such device
 - No retransfer without prior USG consent
- ▶ Not inimical to common defense and security



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Part 110 Appendix A Illustrative List of Reactor Equipment

- ▶ Especially Designed or Prepared Equipment
- ▶ Definition of “Nuclear Reactor:”
 - Items within or attached directly to the reactor vessel
 - Equipment which controls the level of power in the core
 - Components which normally contain or come in direct with or control the primary coolant of the reactor core



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Illustrative Lists in Part 110 Appendices

- ▶ **Appendix B – Gas Centrifuge Enrichment**
- ▶ **Appendix C – Gaseous Diffusion Enrichment**
- ▶ **Appendix D – Aerodynamic Enrichment**
- ▶ **Appendix E – Chemical or Ion Exchange Enrichment**
- ▶ **Appendix F – Laser-Based Enrichment**
- ▶ **Appendix G – Plasma Separation Enrichment**
- ▶ **Appendix H – Electromagnetic Enrichment**
- ▶ **Appendix I – Reprocessing**
- ▶ **Appendix J – Uranium Conversion**
- ▶ **Appendix K – Plants for the Production of Heavy Water, Deuterium and Deuterium Compounds**
- ▶ **Appendix L – Byproduct Materials**
- ▶ **Appendix N – Lithium Isotope Separation**
- ▶ **Appendix O – Fuel Fabrication**

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Part 110 Appendix P Radioactive Materials

- ▶ In 2005, Part 110 was amended to address the IAEA Code of Conduct on the Safety and Security of Radioactive Sources and its Import/ Export Guidance
- ▶ 16 radionuclides previously authorized for export or import under general license became subject to specific licensing
- ▶ In 2010, Part 110 was amended to allow U.S. parties to import under general license if they are appropriately authorized domestically

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Part 110 Appendix P Radioactive Materials

- ▶ If a device or a source for use in a device contains Appendix P radionuclides (Am-241, Am-241/Be, Cf-252, Cm-244, Co-60, Cs-137, Gd-153, Ir-192, Pu-238, Pu-239/Be, Pm-147, Ra-226, Se-75, Sr-90, Tm-170 or Yb-169) a specific NRC export license may be required



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To contact the NRC
Office of International
Programs

301-415-1780

THANK YOU!!!

Lauren Mayros
301-415-2775
Lauren.Mayros@nrc.gov



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