



Accountability
Performance
Accuracy

The Nuclear Materials Management Safeguards System

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2016

Annual Users Training Meeting

May 9-12, 2016 | New Orleans, LA

NRC Export/Import Licensing 10 CFR Part 110

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■ Legal Basis:

- Atomic Energy Act of 1954
- Nuclear Non-Proliferation Act of 1978
- Treaties, Conventions and Agreements
- Promulgated in 10 CFR Part 110
- No person may export any nuclear material or equipment listed in § § 110.8 and 110.9, unless authorized by a general or specific license issued under 10 CFR Part 110.



Examples of Licensed Commodities

- 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.

NRC Export/Import Licensing Requirements

- In accordance with §110.5, no person may export any nuclear equipment or material listed in §§110.8 and 110.9, or import any nuclear equipment or material listed in §110.9a, unless authorized by either:
 - An NRC **general** export or import license, §§110.21 - 110.27, or
 - An NRC **specific** export or import license, §§110.31- 32, 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, §110.10.

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NRC General Licenses

- Are issued in accordance with 10 CFR Part 110 after rulemaking and coordination with the Executive Branch.
- Are not exemptions or “No License Requireds (NLRs).”
- Authorize exports (§§110.21-110.26) of small quantities of uranium, plutonium, tritium and minor reactor components to specified countries.
- Authorize imports (§§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. §110.54



NRC General Licenses

- Do not authorize exports to embargoed countries, i.e., a specific license is required for exports to the following countries (10 CFR 110.28):

Cuba

Iran

Iraq

Syria

Sudan

North Korea

- Authorize limited exports to restricted destinations – a specific license may be required for exports to (10 CFR 110.29):

Afghanistan

Angola

Burma

Andorra

Djibouti

India

Israel

Pakistan

South Sudan

Libya

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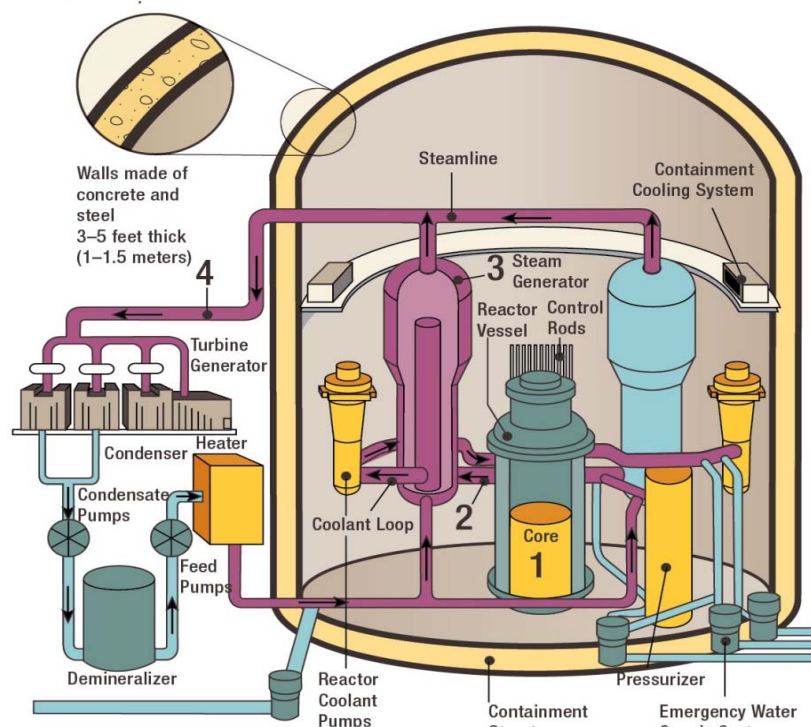
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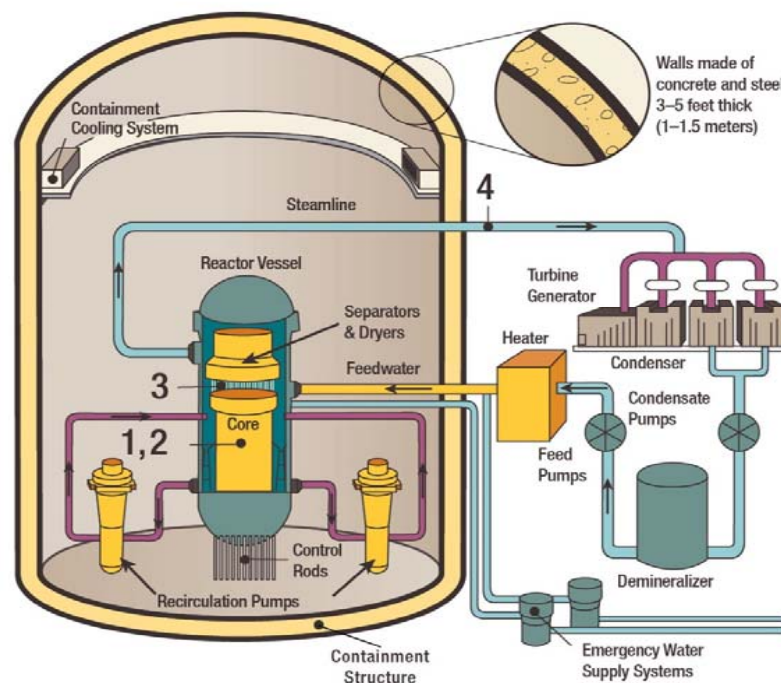
NRC Export/Import Licensing

Nuclear Reactors & Especially Designed or Prepared Equipment

Typical Pressurized-Water Reactor



Typical Boiling-Water Reactor



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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Incorporation of the NSG Trigger List

- The Nuclear Suppliers Group, Part 1 Guidelines – the Trigger List – is reproduced in 14 appendices to NRC's export regulations at 10 CFR Part 110.
- These are “illustrative” lists – NRC can exert control over additional commodities consistent with its statutory authority.
- Incorporates the “especially designed or prepared for” concept in the regulations.



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Illustrative Lists in Part 110 Appendices

- Appendix A – Illustrative List of Reactor Equipment
- 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 M – Categorization of Nuclear Material
- Appendix N – Lithium Isotope Separation
- Appendix O – Fuel Fabrication



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NRC Form 7

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NRC FORM 7
(02-2016)
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0027
Expires: 11/30/2018

APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S)
(See Instructions on Pages 4 and 5)

PART A. FOR NRC USE ONLY

☐ PUBLIC OR ☐ NON-PUBLIC

DATE RECEIVED

LICENSE NUMBER DOCKET NUMBER ADAMS ACCESSION NUMBER

PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS, OR CONSENT REQUESTS
(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

1. NAME AND ADDRESS OF APPLICANT/LICENSEE

1a. NAME OF APPLICANT'S CONTACT

1b. APPLICANT'S REFERENCE NUMBER

1c. PHONE NUMBER

1d. FAX NUMBER

1e. E-MAIL ADDRESS

2. TYPE OF ACTION REQUESTED (Check One)

☐ EXPORT (Parts B, C, E) ☐ IMPORT (Parts B, D, E) ☐ AMENDMENT/RENEWAL (Current License Number:) ☐ CONSENT REQUEST (Parts B, C) (Current License Number:)

3. CONTRACT NUMBER(S) 4. FIRST SHIPMENT DATE 5. LAST SHIPMENT DATE 6. PROPOSED EXPIRATION DATE

PART C. TO BE COMPLETED FOR EXPORT LICENSES, AMENDMENTS, OR RENEWALS
(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT

8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S)

9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S)

10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS FOR NUCLEAR EQUIPMENT INCLUDING TOTAL DOLLAR VALUE OF EQUIPMENT FOR EXPORT

10a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)

10b. MAX ENRICHMENT OR WGT %

10c. MAX ISOTOPE WGT (KG)

11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

NRC FORM 7 (02-2016)

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NRC FORM 7
(02-2016)
10 CFR 110

U. S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT OR IMPORT LICENSE, AMENDMENT, RENEWAL, OR CONSENT REQUEST(S) (Continued)

LICENSE NUMBER DOCKET NUMBER ADAMS ACCESSION NUMBER ☐ PUBLIC OR ☐ NON-PUBLIC

PART D. TO BE COMPLETED FOR IMPORT LICENSES, AMENDMENTS, OR RENEWALS
(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT

13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)

14. NAME(S) / ADDRESS(ES) OF ULTIMATE U. S. CONSIGNEE(S)

12a. NRC EXPORT LICENSE NUMBER(S) (if applicable)

13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)

14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)

13b. INTERMEDIATE USE(S)

14b. ULTIMATE END USE(S)

15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES

15a. MAX TOTAL VOLUME / ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)

15b. MAX ENRICHMENT OR WGT %

15c. MAX ISOTOPE WGT (KG)

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, RENEWALS OR CONSENT REQUEST(S)

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS? ☐ YES ☐ NO

17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED? ☐ YES ☐ NO

18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL

18b. SIGNATURE - AUTHORIZED OFFICIAL

18c. DATE

NRC FORM 7 (02-2016)



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NRC Specific Licenses and 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 \$17,400 and depend 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.



NRC Form 7 Tips To Remember

- Application may be sent through regular mail, but not advisable.
- Review process does not start, until full fee is received.
- A succinct cover letter or email explaining application is helpful.
- If needed, you may contact NRC licensing staff early, for clarity with information needed for license application.
- Pay special attention to listing obligations for material and equipment (e.g. EURATOM, Canada, Australia, and the United States).
- Be cognizant of and accurately reflect the information requested in the blocks.

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NRC Form 7 Tips To Remember (con't)

- Include specific and accurate information for intermediate and end use(s). Block 13
- Be realistic about expiration date requested.
- Describe accurately and succinctly, the equipment, sealed source, or radioactive material to be exported – especially enrichment levels, weight quantity, and minor components.

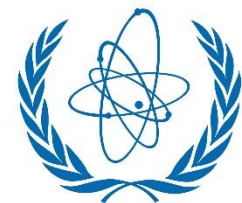




- Annual reports required:
 - For licensees using NRC general or specific license authorizations for exports of americium and/or neptunium (§ 110.23)
 - For exports of components authorized under general license the report must include (§ 110.54(c)):
 - A description of the components keyed to the categories listed in Appendix A.
 - Approximate shipment dates.
 - A list of recipient countries and end users keyed to the items shipped.
- The information required in these annual reports and their due dates are specified in § 110.54(b).

Additional Protocol (AP) Reporting Requirements

- Quarterly reports required:
 - For licensees using NRC general or specific license authorizations for exports of specified equipment and non-nuclear material (2.a.ix), as listed in Annex II of the Additional Protocol to the U.S. – IAEA Safeguards Agreement [INFCIRC/540 (Corrected)]
 - This reporting requirement is also reflected on NRC's Part 110.54(a)(1) and it does not preclude the company to comply with Part 110.54(c) annual reporting requirements under General License.

**IAEA**

International Atomic Energy Agency



Additional Protocol Reporting Requirements Contd.

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- Licensee should determine if facility is considered a “site” or a “location” as per definitions on Part 75.4 and should use form AP-M or AP-13 respectively, found on www.AP.gov, to report directly to Department of Commerce, Bureau of Industry and Security (BIS) every quarter (forms are joint DOC/NRC forms).
- Quarterly deadlines to BIS are: January 15, April 15, July 15, and October 15 of each year

For additional questions on AP reporting:

- Hilary Lane (hilary.lane@nrc.gov)
- Santiago Aguilar (Santiago.Aguilar@nrc.gov)



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Form AP-13 (Locations) & Form AP-M (Sites)

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FORM APPROVED: OMB NO. 0694-0135

U.S. DEPARTMENT OF COMMERCE Bureau of Industry and Security U.S. NUCLEAR REGULATORY COMMISSION Office of Nuclear Materials Safety and Safeguards ADDITIONAL PROTOCOL REPORT FORM AP-13: EXPORT OF EQUIPMENT AND NON- NUCLEAR MATERIAL		Date Received (Leave Blank)
Submit a separate form for each export of specified equipment or non-nuclear material listed in Supplement 3 of this Handbook from your site.		
13.1	Reporting Code (once assigned):	
13.2	Annex II reference number:	
13.3	Identify the Exported Item:	
	Item Dimensions:	
	Capacity (Volume):	
	Throughput:	
	Material of Construction:	
	Serial or Model Number(s):	
	Name and address of manufacturer:	
	Key Specifications of non-nuclear material:	
Any additional information that will help identify the item:		
13.4	Quantity exported:	<input type="checkbox"/> Items <input type="checkbox"/> Kg <input type="checkbox"/> Tons
13.5	Name of importing company or organization:	
	Street Address:	City:
	Province:	Country:
13.6	Date of Export (mm-dd-yyyy):	
13.7	<input type="checkbox"/> Check this box if a Continuation Form (Form AP-16) has been used to provide additional information for any of the above questions.	

FORM APPROVED: OMB NO. 0694-0135

U.S. DEPARTMENT OF COMMERCE Bureau of Industry and Security U.S. NUCLEAR REGULATORY COMMISSION Office of Nuclear Material Safety and Safeguards ADDITIONAL PROTOCOL REPORT FORM AP-M: EXPORT OF EQUIPMENT AND NON- NUCLEAR MATERIALS		Date Received (Leave Blank)
Submit a separate form for each export of specified equipment or non-nuclear material listed in Supplement 3 of this Handbook from your site.		
M.1	Site Reporting Code (once assigned):	
M.2	Annex II reference number:	
M.3	Identify the Exported Item:	
	Item Dimensions:	
	Capacity (Volume):	
	Throughput:	
	Material of Construction:	
	Serial or Model Number(s):	
	Name and address of manufacturer:	
	Key Specifications of non-nuclear material:	
Any additional information that will help identify the item:		
M.4	Quantity exported:	<input type="checkbox"/> Items <input type="checkbox"/> Kg <input type="checkbox"/> Tons
M.5	Name of importing company or organization:	
	Street Address:	City:
	Province:	Country:
M.6	Date of Export (mm-dd-yyyy):	
M.7	<input type="checkbox"/> Check this box if a Continuation Form (Form AP-P) has been used to provide additional information for any of the above questions.	





Recent Enforcement Actions

- Failure to report exports under general and specific licenses in accordance with Annex II of the Additional Protocol. §10 CFR 110.54(a)(1)
 - The export of major reactor components without obtaining a specific license. § 110.5, 110.31, and 110.32
 - Failure to obtain a specific license before the export of NRC licensable equipment and sources. §110.5
 - The export of components and equipment, requiring a specific, license to destinations not permitted to be exported under the NRC general license. §110.26
 - Failure to submit annual reports for exports of reactor components by February 1 of each year. § CFR 110.26
- **Note:** In some cases, a civil penalty may be imposed, in accordance with NRC Enforcement Policy. Self-disclosure is encourage and will be taken into account when assessing a civil penalty.



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QUESTIONS?

THANK YOU!!!

- To contact the NRC Office of International Programs
- Andrea R. Jones
301-415-2309
Andrea.Jones2@nrc.gov

