

NRC OFFICE OF INTERNATIONAL PROGRAMS

**PUBLIC MEETING
OCTOBER 19, 2004**

PROPOSED RULE

**SECURITY ENHANCEMENTS FOR EXPORTS
AND IMPORTS OF CERTAIN NUCLEAR AND
RADIOACTIVE MATERIALS**



Welcome and Introduction

- Purpose and Objectives
- Format
 - Presentation
 - Question & Answer Session with NRC Panel

Welcome and Introduction

- Information Packages
- Sign-In Sheet

Presentation Overview

- NRC Current Export/Import Licensing Regulations
- New Security Realities Post 9/11
- Revisions to IAEA Code of Conduct
- Proposed Rule Revising Part 110 Regulations

NRC Current Export/Import Licensing Regulations

- Apply to special nuclear, source and byproduct materials, as well as nuclear facilities/equipment
- Require use of a general or specific license
- Establish review and approval criteria

New Security Realities Post 9/11

- Threat of radiological terrorism
 - “Dirty Bombs”
 - Radioactive dispersal devices “RDDs”
- Comprehensive security reviews initiated by NRC domestically

New Security Realities Post 9/11 (cont.)

- “High risk sources” identified by NRC/DOE
- Security orders Additional Security Measures (ASMs) issued to domestic licensees of the NRC and Agreement States
- Revised IAEA Code of Conduct (Code) adopted September 2003

Revised IAEA Code of Conduct

- Countries urged to follow Code's guidelines to:
 - Develop & implement harmonized measures to ensure safety & security of radioactive sources
 - Establish a qualified regulatory body
 - Adopt safety and security requirements
 - Monitor adherence to requirements

Revised IAEA Code of Conduct (cont.)

- For exports and imports of radioactive sources listed in Annex 1, Table 1 of the Code as Categories 1 and 2, Countries should establish requirements for:
 - Prior notice by the exporting Country
 - Consent by the importing Country

Proposed Revisions to Part 110 Regulations (cont.)

- Reflect relevant provisions of the revised Code
- Require specific (instead of general) licenses to export or import “high risk sources”

Proposed Rule Overview

- Reflects changes to nuclear and radioactive material security policies
- Reflects international efforts
 - IAEA Code of Conduct (Code)

Proposed Rule Overview cont.

- Rule intended to conform NRC's export/import regulations to Code
 - Intent is to cover export/import bulk material, as well as the sealed radioactive sources covered by the Code

Proposed Rule Overview cont.

- The rule applies to all nuclear and radioactive sources posing significant risks
 - Prior notification needed before shipment
 - Countries receiving Category 1 or Category 2 radioactive sources should have the regulatory capability to manage them consistent with international safety and security standards

Proposed Rule Overview cont.

- Requirements for advanced notification to NRC of shipments should parallel domestic NRC requirements in the ASMs

Proposed Rule Overview cont.

- Rule requires specific license for a small number of “high-risk” nuclear and radioactive material exports and imports as listed in Appendix P

Appendix P to Part 110 – High Risk Radioactive Material

Radioactive Material	Category 1		Category 2	
	Terabequerels (Tbq)	Curies (Ci)	Terabequerels (Tbq)	Curies (Ci)
Americium-241:.....	60	2,000	.6	20
Americium-241/Be:.....	60	2,000	.6	20
Californium-252:.....	20	500	.2	5
Curium-244:.....	50	1,000	.5	10
Cobalt-60:.....	30	800	.3	8
Cesium-137:	100	3,000	1	30
Gadolinium-153:.....	1,000	30,000	10.0	300
Iridium-192:.....	80	2,000	.8	20
Plutonium-238:.....	60	2,000	.6	20
Plutonium-239/Be1:.....	60	2,000	.6	20
Promethium-147:.....	40,000	1,000,000	400.0	10,000
Selenium-75:.....	200	5,000	2.0	50
Strontium-90:.....	1,000	30,000	10.0	300
Thulium-170:.....	20,000	500,000	200.0	5,000
Ytterbium-169:.....	300	8,000	3.0	80

1 The limits for Pu-238 and Pu-239/Be in this table apply for imports to the U.S. The limits for exports of Pu-238 and Pu-239/Be can be found in § 110.21.

Impacts of Proposed Rule

- Largest impact will be to companies exporting radionuclides:
 - Americium-241
 - Cobalt-60
 - Iridium-192
 - Cesium-137

Based on NRC's data collected through the review of export/import shipments by U.S. companies

Impacts Continued

- 32 Export/Import companies will need to comply with proposed specific license requirements
- Need of assessment of countries' regulatory structure
 - Adequate control of material upon receipt
 - Recipient authorization

Impacts Continued

- US imports not significantly affected
 - Code guidance recently implemented for controlling imports
 - Program already in place

License Fees

- NRC fee-based agency
- License application export/import processing fees listed in 10 CFR 171.15
- Appendix P Category 1 application fee:
 - \$10,100
- Appendix P Category 2 application fee:
 - \$5,900

Licensing Appendix P Items: Exports

Documentation Needed

- Specific License application
 - NRC Form 7
 - Available on the NRC website
 - <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc7.pdf>
 - Attach pertinent documentation
 - Demonstrates Importer of material, in other country, is authorized
 - Ex: Import certificate/license

Licensing Appendix P Items: Exports cont.

- Prior notification to importing government authority
- Appendix P, Category 1 exports
 - Consent of import on a government-to-government basis

Export Approval Criterion (10 CFR 110.42)

- Export is found non-inimical
 - By U.S. Government
 - Including Executive Branch
- Commission's Considerations
 - Technical and administrative capability of country
 - Regulatory structure
 - Recipient authorization

Export Approval Criterion (10 CFR 110.42) Cont.

- Commission's Considerations cont.
 - Appendix P, Category 1 material
 - Government consent to import
 - Alternative arrangements
 - When questions arise about receiving
 - If Commission authorizes
 - Prior notification to importing country
 - NRC notification of individual shipments

Licensing Appendix P Items: Imports

- Current general license in 110.27 will be limited to:
 - Individual shipments less than amounts in Appendix P, Category 2

Documentation Needed

- Application filed by letter
 - Application will provide information listed in Sections 110.31-32

Import Approval Criterion (See 110.43 & .45)

- Non-inimical determination by NRC
- Does not constitute an unreasonable risk
 - Public health or safety
- U.S. recipient must have authorization
 - To receive and possess

Import Approval Criterion (See 110.43 & .45) cont.

- Prior notification to NRC of individual shipments
 - See 10 CFR 110.50, Terms
- Pertinent documentation provided to NRC
 - Recipient of material is authorized
 - Ex: Import certificate/license
- Appendix P, Category 1 imports
 - NRC provides formal U.S. Government consent to export authority

LICENSE TERMS: NOTIFICATIONS (110.50)

- For exports and imports, the licensee is responsible for notifying NRC and importing country in advance of each shipment. (Note: List of Points of Contact in importing countries available via e-mail, ip@nrc.gov)

- Requirements for notifications
 - made at least 24 hours in advance of each shipment
 - If practical, 10 days notice
- Electronic or in writing
 - Should contain the following seven (7) terms of information:
 - Copy of the license/certificate showing foreign recipient authorized to possess shipment
 - Estimated dates of when the shipment is to begin and end

LICENSE TERMS: NOTIFICATIONS (110.50) cont.

- Exporting or importing facility
- Recipient information
- Radioactive material, and specific activity
- Aggregate activity level
- Number of radioactive sources, description/unique identifiers (e.g., manufacturer, model or serial number)

LENGTH OF LICENSE

- Commission Flexibility in approving specific export/import licenses
 - Appendix P material on a case by case basis
- Foreign country regulatory experience limitations
 - Limited to single shipments

LENGTH OF LICENSE cont.

- NRC will use provision of Section 110.31(e)
 - Issuing broad specific export/import licenses
- License duration consistent with expiration date of recipient's possession authorization

Issuing of Export/Import Licenses cont.

- Shipments meeting or exceeding Appendix P, Category 2
 - Requires prior notification to NRC

Rule Implementation

- Final rule will have a six-month implementation period
- Full implementation will be no later than December 31, 2005

Transshipments

- Shipments passing through U.S. do not require NRC export/import license
 - Section 110.1(b)(6)
- Shipments must comply with DOT, State transportation, and IAEA packing requirements

Transshipments cont.

- Part 110 to be updated at a later date
 - Pending completion of Commission action on security standards applicable to transshipment of nuclear and radioactive material
- Transshipment may become subject to orders, as Commission determines