

The Nuclear Materials Management and Safeguards System (NMMSS)



2015 Annual
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Training
Meeting

Accuracy

Accountability

Performance



May 11-14, 2015

Las Vegas, NV

Nuclear Material Import/Export License – Uses & Reporting processes

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Overview



- What is a Nuclear Regulatory Commission (NRC) import/export license?
 - Licenses for imports
 - Licenses for exports
 - Export license monitoring
- Highlights of imports/exports in 2014
 - Nuclear material imported to the U.S.
 - Nuclear material exported from the U.S.
 - Types of materials shipped
 - Typical uses and applications
- What is required to import/export?
- How to report import/export transactions to NMMSS
- Common reporting issues and tips to avoid them



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NNSA



What is a Nuclear Regulatory Commission (NRC) import/export license?



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Licenses for Imports



- Imports of nuclear material for civilian uses
 - Licensed by NRC (Office of International Programs)
 - Most imports are granted a “General License”
 - Imports that require a specific NRC license
 - Import shipment of 100 kilograms or more of irradiated nuclear fuel
 - Imports of radioactive waste
 - Imports of a formula quantity of special nuclear material
 - 2 kilograms or more of plutonium or U-233
 - 5 kilograms or more of U-235 contained in high-enriched uranium



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Licenses for Exports



- Exports of nuclear material for civilian uses
 - Licensed by NRC (Office of International Programs)
 - Three categories of exports authorized by the NRC:
 - License Exempt “Lic-Exempt”
 - General License “Gen-Lic”
 - Specific License



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Licenses for Exports (continued)



- The export of IAEA safeguards samples are granted an “Exemption” by the NRC
 - 100 grams, or less, of SNM per year from a facility
 - 5 kilograms, or less, per year of source material from a facility
- These exports as documented on the DOE/NRC Form 741, “15. EXPORT OR IMPORT TRANSFERS: LICENSE NO.,” as “LIC-EXEMPT”



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Licenses for Exports (continued)



- Some exports of small quantities of nuclear material are usually granted a “General License” by the NRC
 - Exports of 0.001 effective kilograms, or less, per shipment of special nuclear material
 - 1 gram of plutonium or 1 gram of U-233
 - 10 kilograms of 1% enriched uranium
 - Exports of 3 grams or less of SNM contained in sensing components in instruments
 - SNM in fuel elements that are replacements for damaged or defective unirradiated fuel elements previously exported
 - Exports of 10 kilograms or less, per shipment of source material, not to exceed 1,000 kilograms of source material to any one country in a calendar year



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Licenses for Exports (continued)



- Exports of greater quantities of nuclear materials require an NRC issued “Specific License”
 - Specific license specifies:
 - Quantity of nuclear material that may exported
 - Chemical/physical form of nuclear material
 - Intermediate nuclear facilities that material may be exported
 - Name of nuclear facility that is to receive nuclear material
 - Expiration date for license



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Export License Monitoring



- The NRC has several methods to monitor import & export license compliance
 - Inspections by NRC inspectors
 - NMMSS reporting by U.S. facility
 - IAEA matching foreign government shipment and receipt reports with U.S. Government shipment and receipt reports

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Highlights of Imports/Exports in 2014

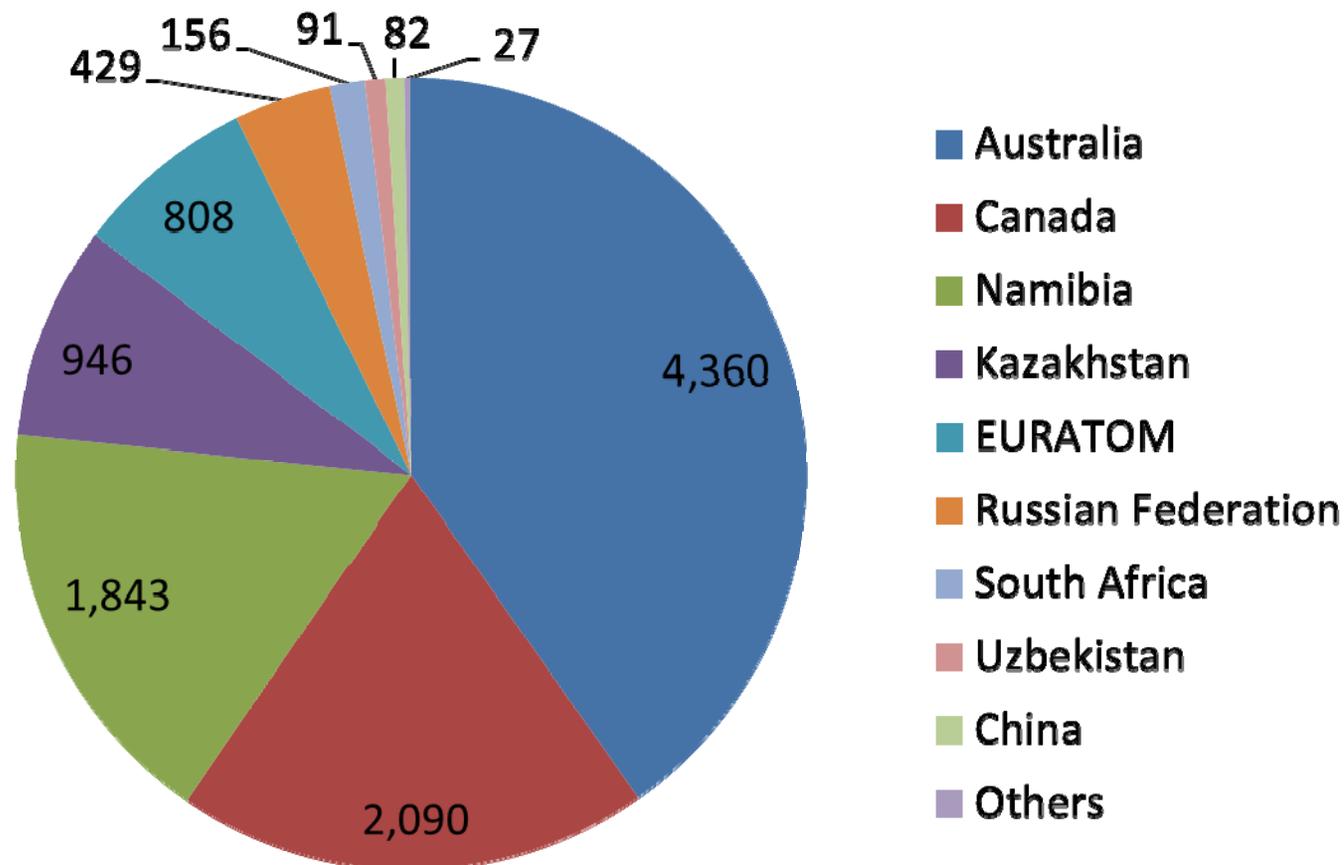
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Nuclear Material Imported to the US (Metric Tons)

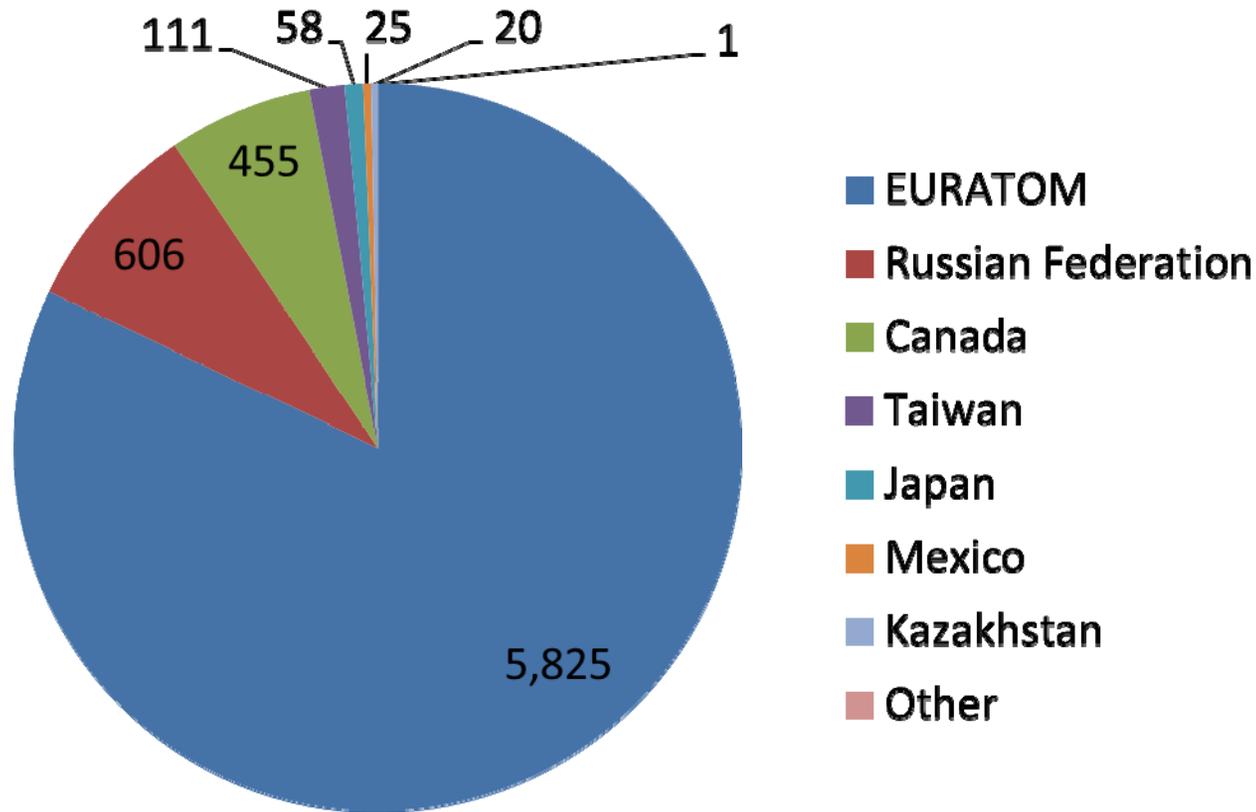


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Nuclear Material Exported from US (Metric Tons)



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Materials Imported



- Normal Uranium
- Depleted Uranium
- Low-Enriched Uranium
- High-Enriched Uranium
- Plutonium
- Thorium

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Materials Exported



- Normal Uranium
- Depleted Uranium
- Low-Enriched Uranium
- High-Enriched Uranium



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Uses of Imports



NNSA



- Natural uranium to conversion and enrichment plants
- Enriched uranium to fuel fabrication plants
- Return of spent fuel from foreign research reactors

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Uses of Exports



- Natural uranium to conversion and enrichment plants
- Enriched uranium to fuel fabrication plants and reactors

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**What is required to
import/export?**



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Requirements for Imports and Exports



- Valid license to import/export
- If material is foreign obligated, does the license authorize import/export
- Satisfy appropriate Agreements for Cooperation guidelines
- Appropriate prior notifications performed
- Report import/export to the NMMSS



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How to report import/export transactions to NMMSS

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NMMSS Reporting of Import/Export



- Report on a DOE/NRC Form 741
 - Valid License entry
 - LIC-EXEMPT
 - GEN-LIC
 - Specific license number
 - U.S. facility reports both the shipper and receiver information for imports
 - U.S. facility reports only shipper information for exports
 - An entry for the BATCH name is required on import or export transactions. Importers must use the batch name used by the shipper.



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NMMSS Reporting of Import/Export



- NRC provides copies of all licenses to NMMSS
- NMMSS monitors import/export license
 - Is the license active
 - Are the consignee(s) authorized by the license
 - Is the quantity of material less than or equal to the license quantity limits

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Common reporting issues and tips to avoid them



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Export Reporting Issues



■ Exports of nuclear material:

- DOE/NRC Form 741, Box 15: EXPORT OR IMPORT TRANSFERS
LICENSE NO: make sure that you use a valid NRC export license number
- Exporting more nuclear material than authorized by NRC export license
- DOE/NRC Form 741, Box 24: SHIPPER'S DATA: each fuel assembly being exported should be listed as a separate line with the applicable weights
- Exports of one or more reportable units of nuclear material should be documented as a shipper to receiver transaction on DOE/NRC Form 741, not as an on-site inventory adjustment, i.e., A-M transaction



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Import Reporting Issues



■ Import of nuclear material:

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- Use the shipper's batch name to document receipt

