

ACCURACY

PERFORMANCE



ACCOUNTABILITY

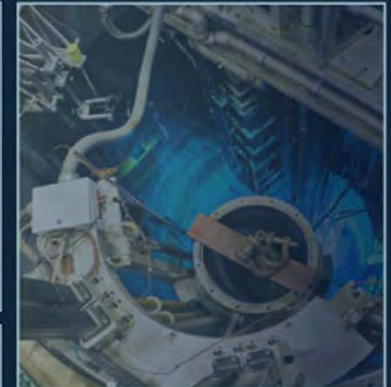


THE NUCLEAR MATERIALS MANAGEMENT AND SAFEGUARDS SYSTEM (NMMSS)

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USERS ANNUAL TRAINING MEETING

 MAY 20-23, 2013 - ST. LOUIS, MISSOURI 



# Import/Export & Obligation Review

Presented by:  
Mitch Hembree  
NMMSS



# Import/Export & Obligations Review

## Primary Driver for Import/Export & Foreign Obligations

- License required to import/export nuclear material
- Foreign obligations = Assurances that material or equipment is transferred pursuant to an Agreement for Peaceful Nuclear Cooperation
- Agreements for Cooperation are necessary, per Section 123 of the Atomic Energy Act of 1954, as amended
- Allow U.S. to trade nuclear material and equipment with foreign countries

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# Import/Export & Obligations Review

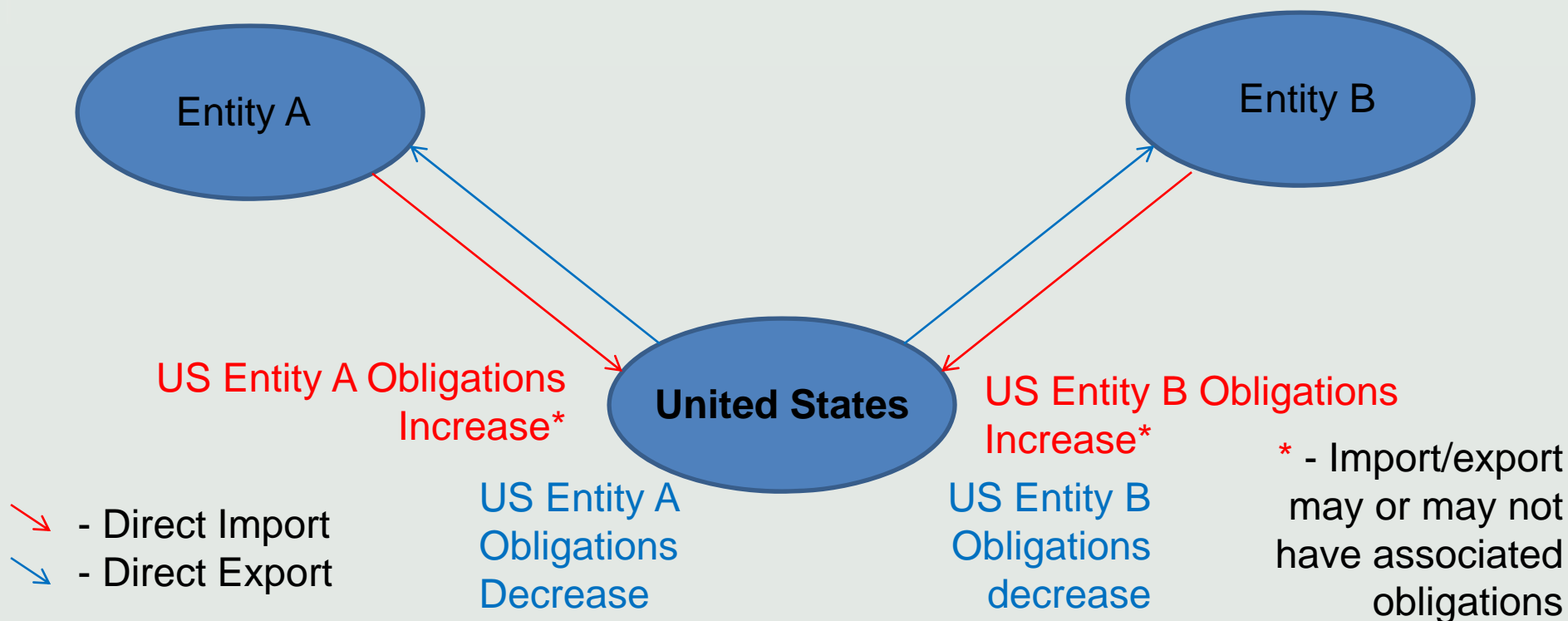
## Conditions that Drive Imports/Exports & Obligations

- Direct Import
- Direct Export
- Indirect Import
- Indirect Export
- Retransfer



# Import/Export & Obligations Review

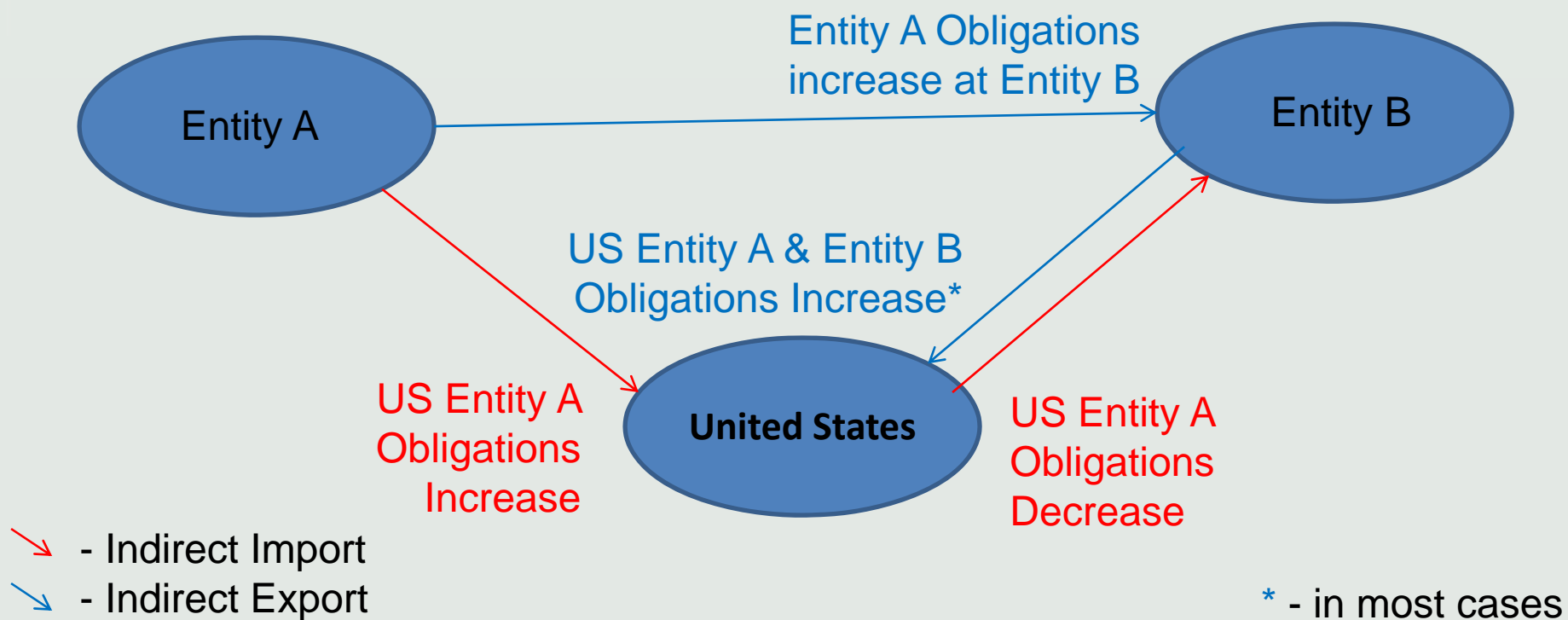
## Direct Import and Export





# Import/Export & Obligations Review

## Indirect Import and Export

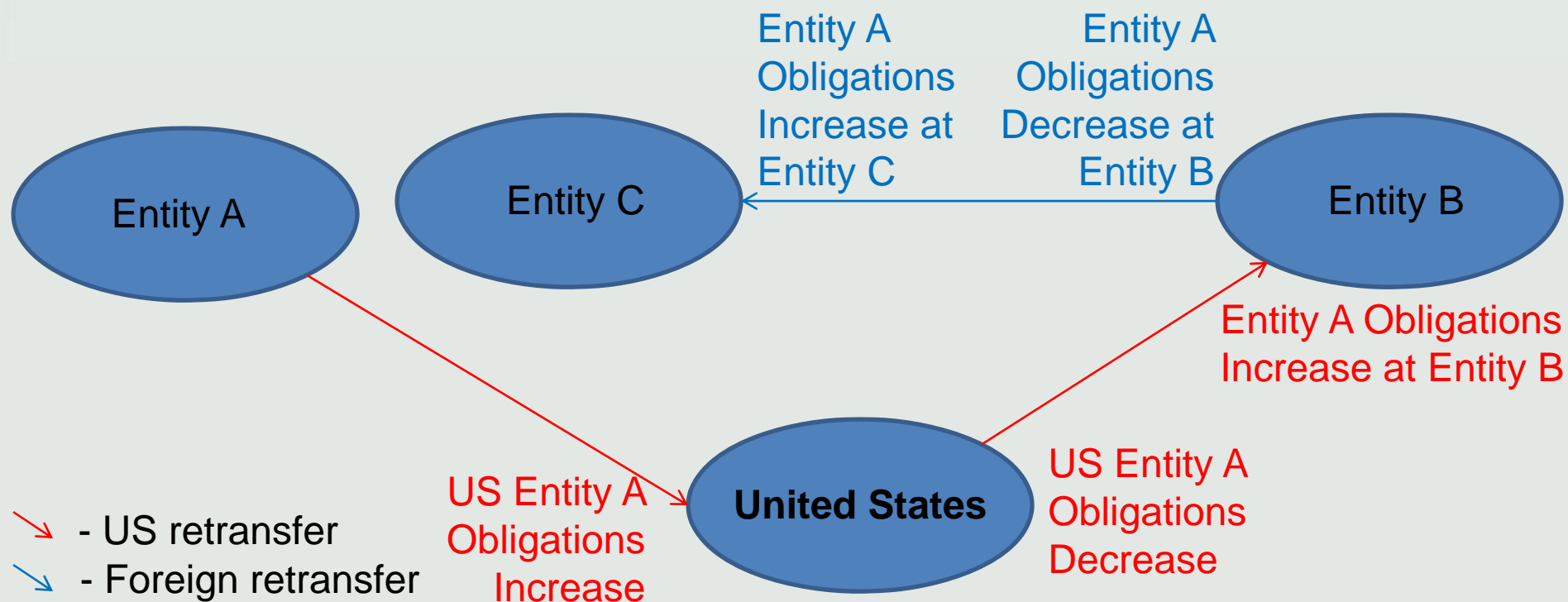






# Import/Export & Obligations Review

## Retransfer



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# Import/Export & Obligations Review

## How are Obligations Associated with Nuclear Material?

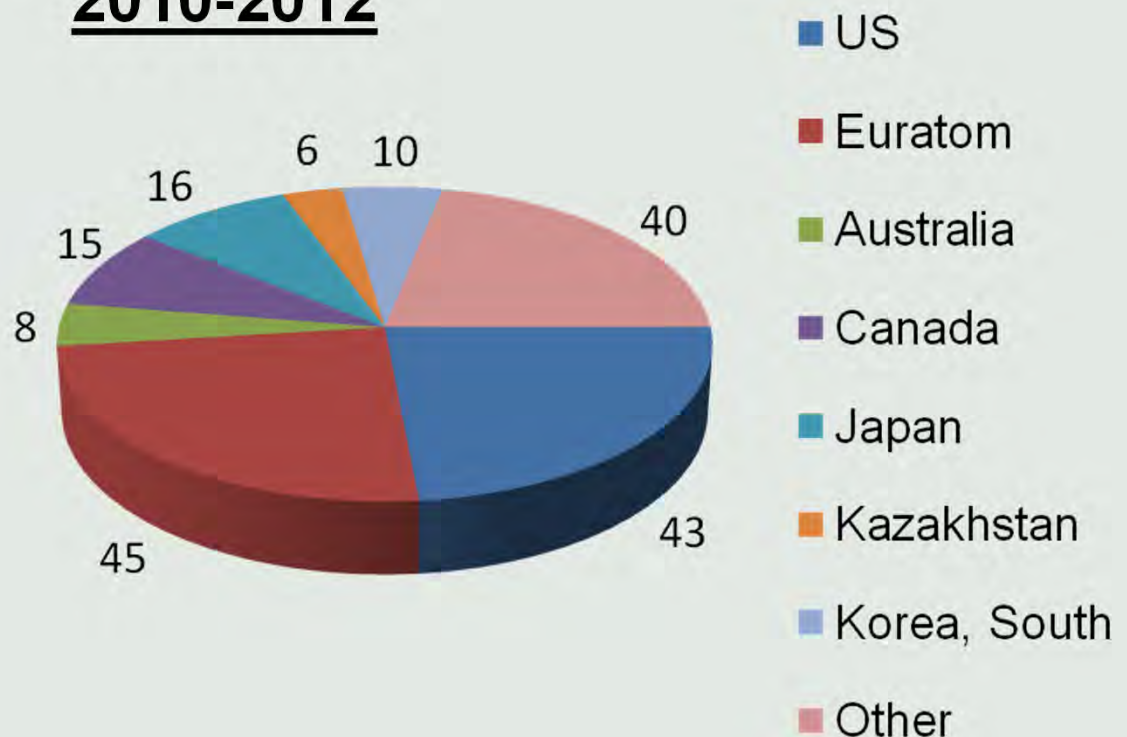
- Imports/exports of material
- Nuclear production/on-site increases
- Retransfers
- Nuclear loss/on-site decreases



# Import/Export & Obligations Review

## Number of Facilities with Import/Export Activity 2010-2012

- Total Entities: 183
- European Atomic Energy Community (Euratom) consists of the following countries: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom



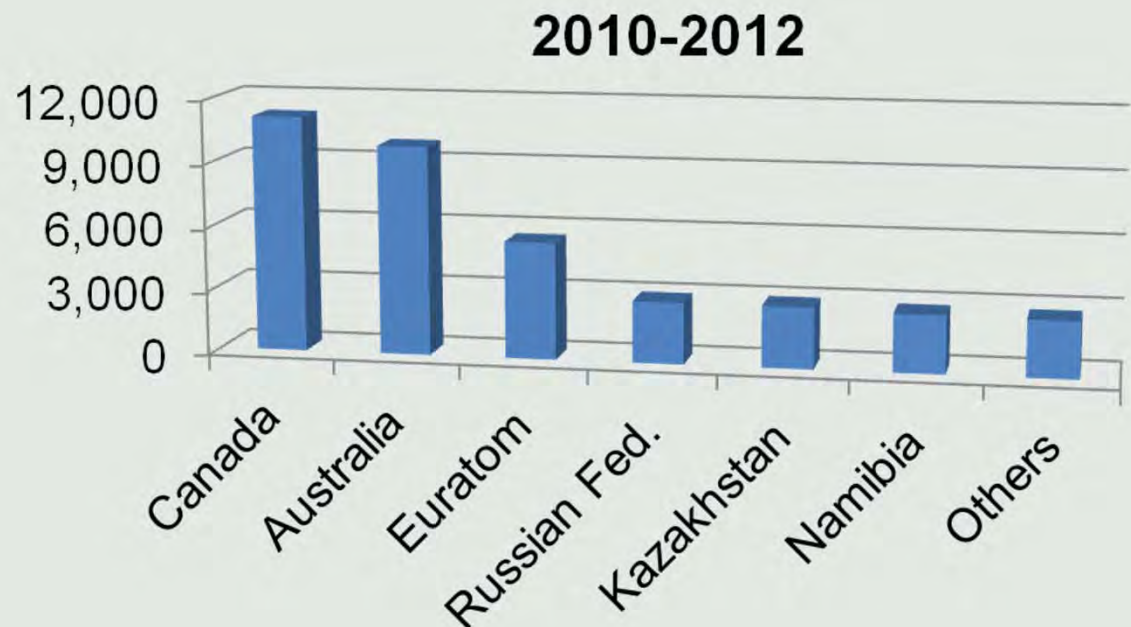




# Import/Export & Obligations Review

## Total Nuclear Material Imported to US (Metric Tons)

- Canada
- Australia
- Euratom
- Russian Federation
- Kazakhstan
- Namibia

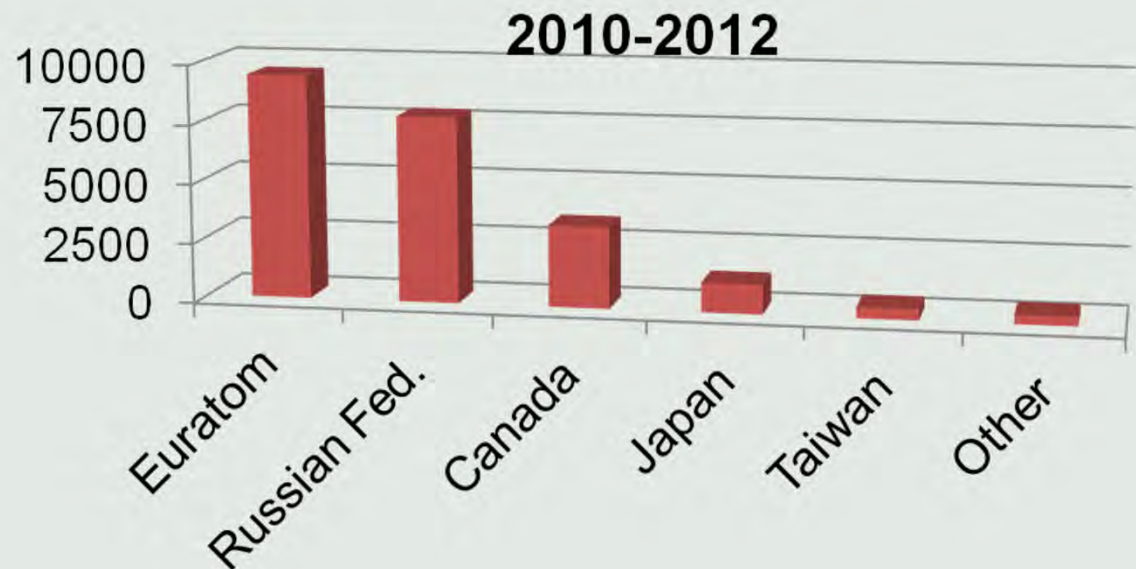




# Import/Export & Obligations Review

## Total Nuclear Material Exported from US (Metric Tons)

- Euratom
- Russian Federation
- Canada
- Japan
- Taiwan

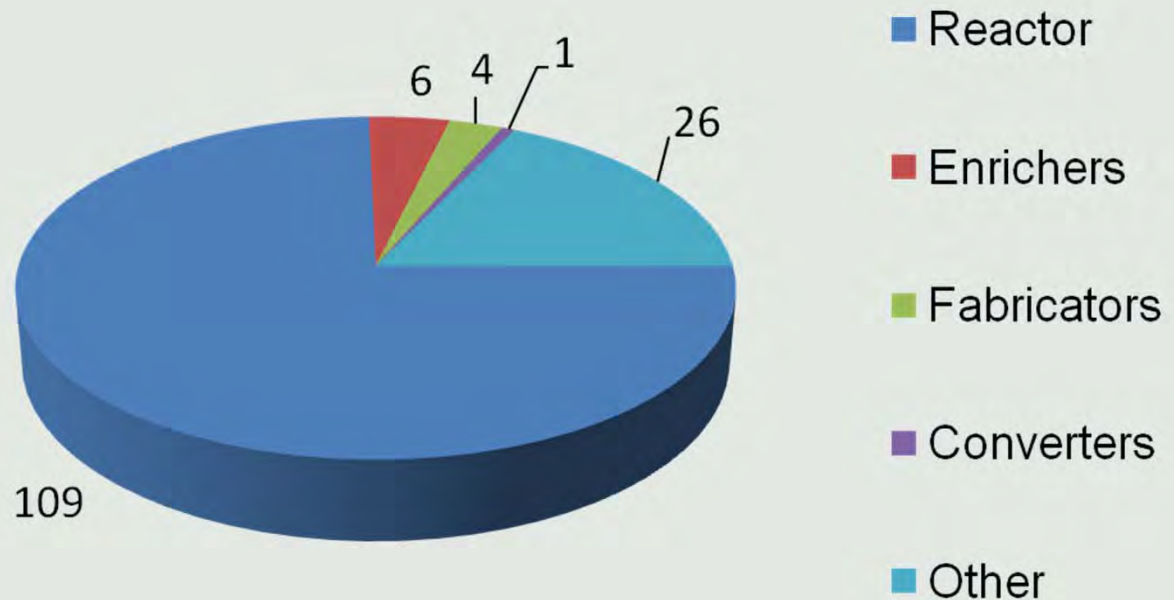




# Import/Export & Obligations Review

## Number of US Facilities with Obligation Balances Through 2012

Total US Facilities: 183

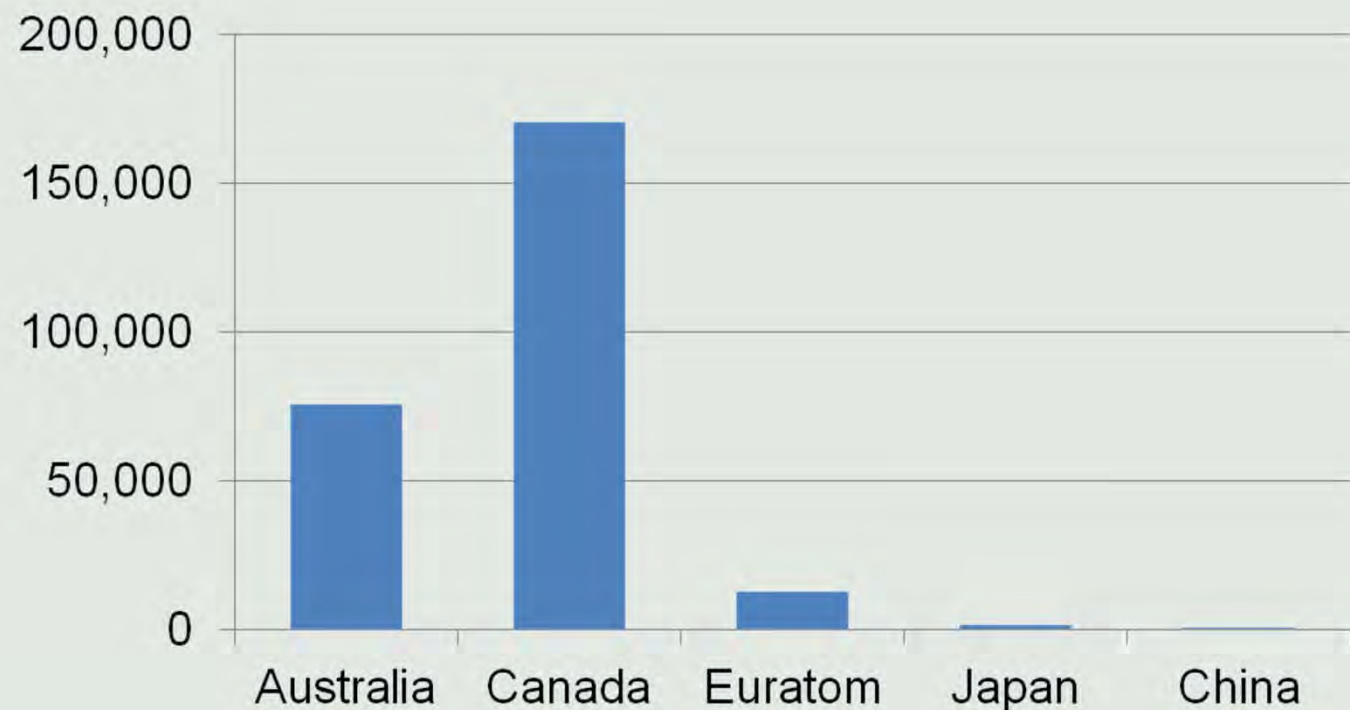




# Import/Export & Obligations Review

## Total Obligations (by Entity) in the U.S. as of January 2012 (Metric Tons)

- Australia
- Canada
- Euratom
- Japan
- China



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# Import/Export & Obligations Review

## Uses for Imported/Exported & Obligated Material

- Conversion and enrichment plants
- Enriched uranium to fuel fabrication plants
- Return of spent fuel from foreign research reactors
- Fuel assemblies for foreign reactors
- Nuclear production





# Import/Export & Obligations Review

## Import/Export Material Types

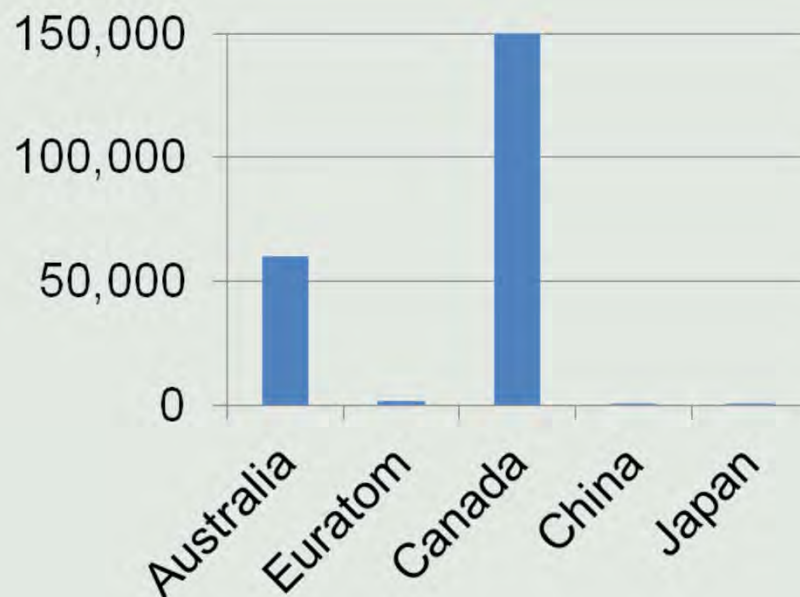
Type	Domestic Code	Import/Export Code	Reportable Unit of Measurement
Depleted Uranium	10	D	Kilogram Uranium
Enriched Uranium	20	EG	Gram Uranium Gram U-235
Plutonium	50	P	Gram Plutonium
Natural Uranium	81	N	Kilogram Uranium
Thorium	88	T	Kilogram Thorium



# Import/Export & Obligations Review

## Distribution of Depleted Uranium (MT 10)

Obligations 2011 Inventory  
(Metric Tons)

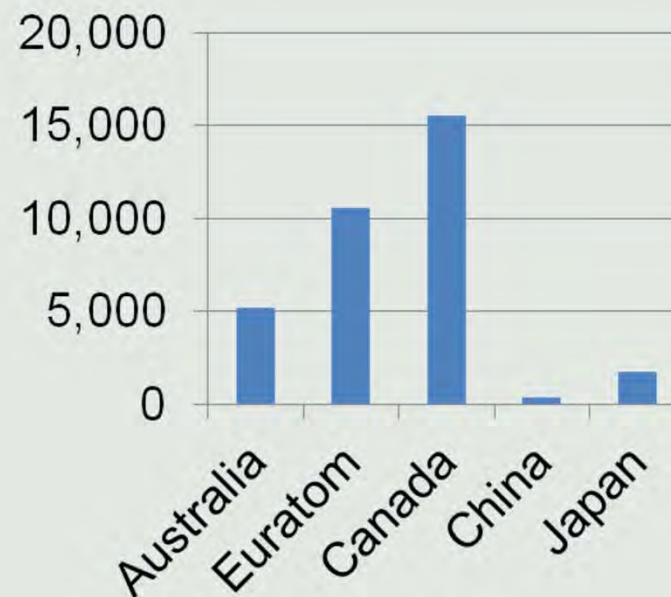




# Import/Export & Obligations Review

## Distribution of Enriched Uranium (MT 20)

### Obligations 2011 Inventory (Metric Tons)

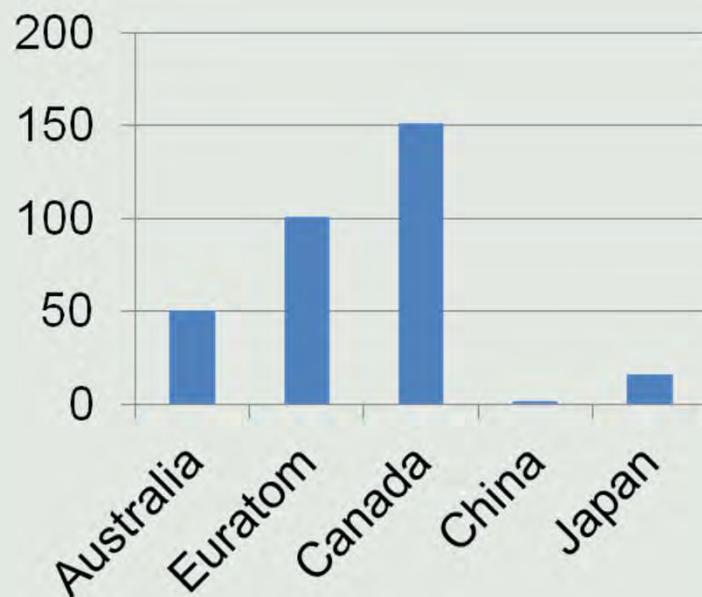




# Import/Export & Obligations Review

## Distribution of Plutonium (MT 50)

Obligations 2011 Inventory  
(Metric Tons)

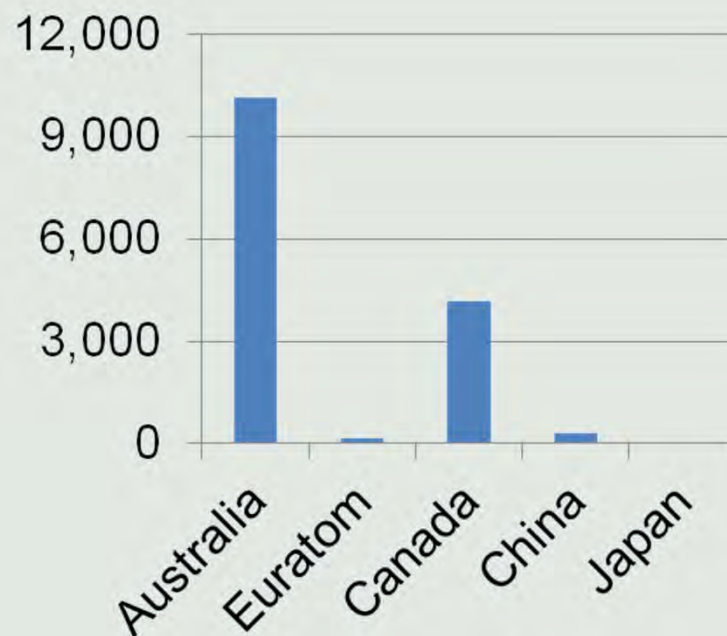




# Import/Export & Obligations Review

## Distribution of Natural Uranium (MT 81)

### Obligations 2011 Inventory (Metric Tons)







# Import/Export & Obligations Review

## NMMSS Obligation Activities

- Monthly obligation inventory reports sent to various Agreement Countries
- Annual obligation inventory reports send to various agreement entities

Entity	Required	Monthly	Annually
Australia	✓	✓	✓
Canada	✓	✓	✓
Euratom	✓	✓	✓
Japan	✓	✓	✓
Switzerland	✓	✓	✓
China			✓
Chile			✓
Brazil			✓
Argentina			✓



# Import/Export & Obligations Review

## New NMMSS Obligation Activity

- Maintain transfer and retransfer information contained in foreign government notifications or other diplomatic documents from U.S. Agreement partners
- Pair foreign government notifications to NMMSS transaction data (transit matching)
- Perform notification follow-up with facilities as necessary based on transit matching activity
- Investigate inquiries from Agreement partners concerning foreign obligated nuclear material

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# Import/Export & Obligations Review

## Import/Export Process & Requirements

Wednesday  
May 22, 2013  
8:30AM

## Overview of Obligations Accounting

Thursday  
May 23, 2013  
8:30AM

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# Import/Export & Obligations Review

## Questions?