United States Imports and Exports Case Study

Presented by:
Mitch Hembree & Len Myers
NMMSS
Issues to Consider

- What license is required
- Is the license valid
- Are the shipper and receiver valid NMMSS facilities (RIS)
- Is the reporting unit used appropriate for NMMSS reporting
- Is the quantity above NMMSS minimum reporting requirements

NOTE: for these examples, obligations will not be considered.
A United States enrichment facility Imixstuff will be receiving 18 containers (which contain 6,000,000 grams of Normal Uranium) from the Canadian conversion facility Itsallnatural on June 1, 2012.
Case 1 Evaluation

- Can general license (GEN-LIC) be used as the import license for Case 1?

  1. NRC states that except as provided in (2) and (3), a general license is issued to any person to import byproduct, source, or special nuclear material if the U.S. consignee is authorized to receive and possess the material under the relevant NRC or agreement state regulations.

  2. The general license in (1) does not authorize the import of more than 100 kilograms per shipment of source and/or special nuclear material in the form of irradiated fuel.

  3. (1) does not authorize the import under a general license of radioactive waste.
Case 1 Evaluation (continued)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for Imixstuff is F01
  - The RIS for Itsallnatural is RD01

- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the quantity of normal uranium in grams. NMMSS requires normal uranium to be reported in kilograms.

- Is the total quantity above NMMSS minimum reporting amount?
  - For normal uranium, NMMSS requires reporting for amounts equal to or greater than 1 kilogram.
Case 1 NMMSS 741 (Receiver Document)

Shipper: RD01
Receiver: F01
Action Code: E
Date: 6/1/2012

Receiver Detail
# of Items: 18
Material Type: N
Total Element Weight: 6,000 Kg

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.
Case 1 NMMSS 741 (Shipper Document)

**Action Code:** A

**Shipper’s Detail**

**Date:** 5/1/2012
CASE STUDY 2 - IMPORT

A United States facility Igetstuff will be receiving 1 container of waste material (which contain 6,500 grams element weight and 230 grams isotope weight of Enriched Uranium) from the French facility Imspecial on September 30, 2012.
Case 2 Evaluation

- Can general license *(GEN-LIC)* be used as the import license for Case 2?

  1. NRC states that except as provided in (2) and (3), a general license *(GEN-LIC)* can be used as the import license for Case 2.

  2. The general license in (1) does not authorize the import of more than 100 kilograms per shipment of source and/or special nuclear material in the form of irradiated fuel.

  3. *(1) does not authorize the import under a general license of radioactive waste.*

Can not use GEN-LIC – a specific license must be used for import of radioactive waste.
License Issues to Consider

- Is the license active
- Is the import exceeding quantity limits for the license
- Is this license pertinent to shipper and receiver

License valid from May 6, 2011 through May 6, 2015

Total not to exceed 2,613 kgs of Uranium-235 contained in 58,575 kgs of uranium...
Case 2 Evaluation (continued)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for Igetstuff is F02
  - The RIS for Imspecial is RF02

- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the quantity of enriched uranium in grams. NMMSS requires enriched uranium to be reported in grams.

- Is the total quantity above NMMSS minimum reporting amount?
  - For enriched uranium, NMMSS requires reporting for amounts equal to or greater than 1 gram.
**Case 2 NMMSS 741 (Receiver Document)**

**Shipper:** RF02  
**Receiver:** F02  
**License:** IWAAA

**Action Code:** N (will measure later and report E action code)  
**Date:** 9/30/2012

**Receiver Detail**  
**# of Items:** 1  
**Material Type:** EG

**Total Element Weight:** 6.500 g element 230 g isotope
**Case 2 NMMSS 741 (Shipper Document)**

**Action Code:** A  
**Date:** 8/15/2012  

**Shipper’s Detail**
CASE STUDY 3 - EXPORT

A United States facility SendoutStuff will be shipping 3 container of unirradiated process residues (which contain 150 grams element weight and 6 grams isotope weight of Enriched Uranium) to the facility Imabrit in the United Kingdom on March 15, 2012.
Case 3 Evaluation

- Can general license (GEN-LIC) be used as the export license for Case 3?
  1. NRC states that GEN-LIC can be used for items consisting of low-enriched uranium as residual contamination (17.5 parts per million or less) in any item or substance.
Case 3 Evaluation (continued)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for Sendoutstuff is F03
  - The RIS for Imabrit is RD03

- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the quantity of enriched uranium in grams. NMMSS requires enriched uranium to be reported in grams.

- Is the total quantity above NMMSS minimum reporting amount?
  - For enriched uranium, NMMSS requires reporting for amounts equal to or greater than 1 gram.
### Case 3 NMMSS 741 (Shipper Document)

<table>
<thead>
<tr>
<th>Action Code</th>
<th>Date</th>
<th>Total Element Weight</th>
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<tbody>
<tr>
<td>A</td>
<td>3/15/2012</td>
<td>150 g element 6 g isotope</td>
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</tbody>
</table>

**Shipper Detail**
- Shipper: RD03
- Receiver: F03
- # of Items: 3
- Material Type: EG
- Weight: 150 g element
- Isotope: 6 g

**Shipper Information**

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<tr>
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<th>Value</th>
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<tr>
<td>Shipper</td>
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<tr>
<td>Receiver</td>
<td>F03</td>
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<td>Action Code</td>
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<tr>
<td>Date</td>
<td>3/15/2012</td>
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<tr>
<td>Total Element Weight</td>
<td>150 g element 6 g isotope</td>
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<tr>
<td># of Items</td>
<td>3</td>
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<tr>
<td>Material Type</td>
<td>EG</td>
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### Case 3 NMMSS 741 (Receiver Document)

<table>
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<tr>
<th>Action Code</th>
<th>Date</th>
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<tbody>
<tr>
<td>B</td>
<td>3/1/2012</td>
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</tbody>
</table>

#### Receiver Detail

- **Action Code:** B
- **Date:** 3/1/2012
CASE STUDY 4 - EXPORT

A United States facility Superduper will be shipping 25 container of material (which contain 5000 grams of Thorium and 5000 grams of Natural Uranium) to the facility ChinatownCo on January 20, 2012.
Case 4 Evaluation

- Can general license (GEN-LIC) be used as the export license for Case 4?
  1. A general license is issued to any person to export uranium or thorium, other than uranium-230, uranium-232, thorium-227, or thorium-228, in individual shipments of 1 kilogram or less… not to exceed 100 kilograms per calendar year to any one country.

Can not use GEN-LIC due to quantity limits – a specific license must be used for export of this quantity of natural uranium and thorium.
License Issues to Consider

- Is the license active
- Is the export exceeding quantity limits for the license
- Is this license pertinent to shipper

License valid from Jan. 1, 2011 through March 31, 2019

Total for natural uranium and thorium not to exceed 30,000 kgs.
License Issues to Consider (continued)

- Is this license pertinent to receiver

1. Est_Facility
   No 1243
   Esttown
   Estonia

2. Braziltown
   234 State Street
   Sao Paulo
   Brazil

3. Chong Metals
   Shen Town
   Guanghome
   Chins

4. ChinatownCo
   ShiShi Town
   Lion Hill
   Hunan
   China
Case 4 Evaluation (continued)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for Superduper is F04
  - The RIS for ChinatownCo is RP01

- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the quantity of normal uranium and thorium in grams. NMMSS requires normal uranium and thorium to be reported in kilograms.

- Is the total quantity above NMMSS minimum reporting amount?
  - For natural uranium and thorium, NMMSS requires reporting for amounts equal to or greater than 1 kilogram.
### Case 4 NMMSS 741 (Shipper Document)

**Shipper:** F04  
**Receiver:** RP01  
**Action Code:** A  
**Date:** 1/20/2012

**License:** XSOU99999

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<th>Material Type</th>
<th># of Items</th>
<th>Total Element Weight</th>
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<tbody>
<tr>
<td>N</td>
<td>25</td>
<td>5 kg N</td>
</tr>
<tr>
<td>T</td>
<td>0</td>
<td>5 Kg T</td>
</tr>
</tbody>
</table>

**Shipper Detail**

**License:** XSOU99999

**Weight:** 5 kg N  
5 Kg T
Case 4 NMMSS 741 (Receiver Document)

Action Code: B

Date: 3/1/2012

Receiver’s Detail
NMMSS Validation/Verification of Import/Export Activity

- Validation confirms acceptable data as defined in NMMSS
- Verification assures correctness of import/export data
- The following NMMSS attributes are validated:
  - RIS
  - License
  - Date
  - Material type
- Verification of use are identified through facility reconciliation and agreement country reconciliation
Questions?