



Accountability  
Performance  
Accuracy

The Nuclear Materials Management Safeguards System

# NMMSS

# 2016

## Annual Users Training Meeting

May 9-12, 2016 | New Orleans, LA

# Submitting Changes to Form 741

Suzanne Ani  
*NRC*



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## A Form 741 is required for:

- Transfers, receipts, or adjustments to inventory of special nuclear material in a quantity of 1 gram or more of contained U-235, U-233 or plutonium
- Transfers, receipts, or adjustments to inventory of source material of foreign obligations by 1 kilogram or more
- Imports or exports of 1 kilogram or more of any uranium or thorium source material



# When are corrections to Form 741 required?

- Common reasons to revise a Form 741
  1. Element or isotope weights are incorrect
  2. Item or batch name/number is incorrect
  3. Item count is incorrect
  4. Obligations must be revised
  
- What are the thresholds or guidelines for correcting a Form 741 if a mistake is detected after it is submitted?

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# Submitting corrections to 741s

When information contained on a previously reported Form 741 is not correct, the licensee should submit a corrected 741 as soon as possible to meet the regulatory reporting requirements.



- NRC regulations require that submissions of information by the facilities are complete and accurate.
- NMMSS relies heavily on the quality of the data reported by the facilities.
- Resources – Always!
  - DOE/NRC Program Managers
  - NMMSS Analysts



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# Reporting Material in Transit

Suzanne Ani  
*NRC*





# Requirement to report Form 741s

- Transfers, receipts, or adjustments to inventory of special nuclear material in a quantity of 1 gram or more of contained U-235, U-233 or plutonium
- Transfers, receipts, or adjustments to inventory of source material of foreign obligations by 1 kilogram or more
- Imports or exports of 1 kilogram or more of any uranium or thorium source material

If a facility receives material (**assumes possession, opens the package, measures the material, adds material to inventory, and/or provides physical security**) a Form 741 is required.





# Example #1

- U.S. Company ABC receives special nuclear material from Russia to be repackaged in new containers before export to Japan.
- The material does not carry foreign obligations and it will not enter the U.S. Fuel Cycle.
- Questions:
  1. Does Company ABC need to submit a Form 741?
  2. Does the presence of foreign obligations determine whether or not a Form 741 is required?
- Answers:
  1. Yes. It is an import. Company ABC is receiving material from a foreign source.
  2. No. Whether or not an import has foreign obligations, the receipt of 1 gram or more of special nuclear material must be documented by a Form 741.





## Example #2

- Company JKL receives special nuclear material which is not unloaded from the truck nor processed at the facility.
- Company JKL confirms the external tamper seals on the containers are intact, and the truck is parked within the controlled access area at the facility for a period of time until it is shipped offsite.
- Question: Does Company JKL need to submit a Form 741?
- Answer: Yes. While Company JKL considers this to be material in transit, a Form 741 using shipper's values is completed to document the receipt of the material at the facility.





## Example #3

- A U.S. company is transferring special nuclear material to an overseas company, and the material has been loaded onto a truck for delivery to the shipping port.
- The truck arrives at the shipping port but bad weather prevents the material from being loaded onto the boat, so the truck remains at the port while the weather improves.
- Question: Does the shipping port need to submit a Form 741 to document that the material is temporarily stored at the port?
- Answer: No. A Form 741 is not required for material in transit temporarily stored at the shipping port.



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## Moral of the story...

- If you receive material (**assume possession, open the package, measure the material, add material to inventory, and/or provide physical security**) a Form 741 is required.
- When in doubt, contact the NRC.





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## NRC Case Study- Foreign Obligations Annual Forecast

Mirabelle Shoemaker  
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# Overview

- What is a foreign obligations annual forecast?
- How do the NRC and licensees rely on the annual forecast?
- Examples and Tips



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# What is a foreign obligations annual forecast?

- Notices from one government indicating planned shipments of nuclear material to another government during a calendar year.
- Generally provided in November-December time frame.
- Shipping country is requesting assurances under the terms and conditions of the Agreement for Nuclear Cooperation.





# How do the NRC and licensees rely on the annual forecast?

- NRC notifies facilities of the annual forecast and requests assurances.
- During the year, NRC will forward Annex I notices for specific shipments to be checked against the annual forecast.
- Facilities should keep record of the annual forecast and alert NRC of any receipts that do not match information provided in the annual forecast or the Annex I documentation.





# Example #1

- Company ABC is expecting 200,000 kgs of LEU from a EURATOM supplier during calendar year 2016.
- To date, they have received 190,000kgs of LEU.
- Question- What do you recommend Company ABC do if they expect to receive more than the expected amount of material?
- Answers
  1. Report the import to NMMSS
  2. Notify NRC and request amended forecast
  3. Other options?



## Example #2

- Company ABC receives cylinders with batch IDs and weight measurements that do not match any Annex I notification they have on file.
- The cylinders contain material that fall within the annual forecast amount of material to be received, but Company ABC cannot match the batch IDs or weights.
- Question - What should they do?
- Answers
  1. Report the import to NMMSS
  2. Contact NRC for assistance

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# Tips

- Continue to report activity to NMMSS
- Contact the NRC to request an amended foreign obligations annual forecast.
- Notify the NRC if you receive material for which you did not provide assurances.
- Seek NRC's help if you cannot match material received with your records.





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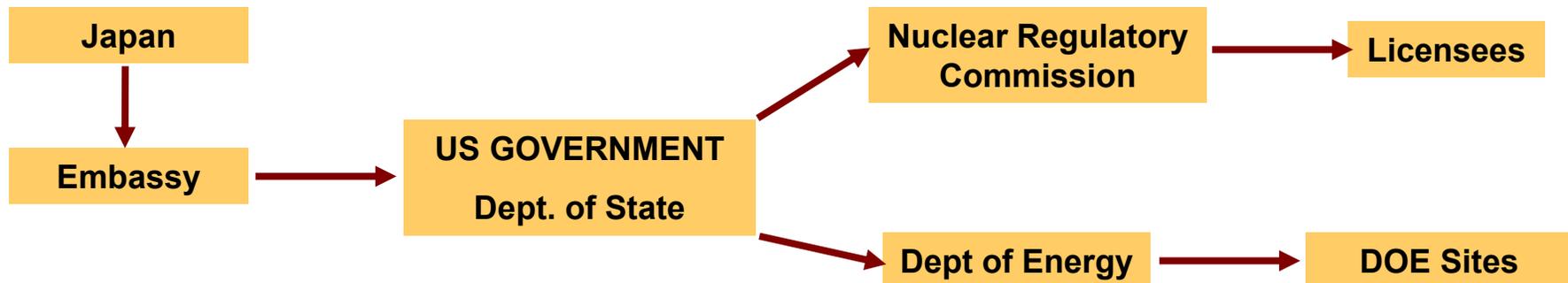
## NRC Case Study- Imports from Japan

Mirabelle Shoemaker  
*NRC*



# Overview

- The U.S. and Japan have an Agreement for Cooperation in place since 1988 until 2018, but it will remain in force until terminated by any party of the Agreement.
- There is no Administrative Arrangement in place, but a similar process of assurances is followed. The majority are NRC cases.





# What are we importing from Japan?

- Very few imports of nuclear material.
- Most of the imports are reactor equipment and components.
- Reactor equipment may be received under the Agreement for Cooperation, requiring foreign obligations tracking.
- U.S. Government prefers Nuclear Suppliers Group conditions for imports of components, which does not require foreign obligations tracking.



# Example #1

- The U.S. imported several reactor vessel closure heads (RVCH) from Japan in the 2003 – 2005 period
- 18 RVCHs were received under the Japanese Agreement.
- Questions
  1. Are the RVCHs foreign obligated?
  2. Is material produced via these RVCHs foreign obligated?
- Answers
  1. The 18 RVCHs are foreign obligated to Japan.
  2. Once these RVCHs are installed, all the nuclear material used and produced in these reactors becomes Japanese obligated nuclear material and tracked in NMMSS.

## Example #2

- Company XYZ imported certain components to be used in fuel assemblies.
- The U.S. Government accepted these components under the NSG conditions: peaceful use, physical security, no retransfers without third party assurances.
- Questions
  1. Are the components foreign obligated?
  2. Is material produced via these components foreign obligated?
- Answers
  1. No, they do not carry foreign obligations.
  2. Once the components are installed in a U.S. nuclear reactor, the material used or produced by using these components has no Japanese foreign obligations.

## Example #3

- Company ABC imports nuclear material in the form of scraps.
- The material is imported under the terms of the Agreement for Cooperation.
- Question
  - 1) If the material is used for uranium recovery, will it carry obligations?
  - 2) If so, which obligations?
- Answer
  1. This material is subject to the terms of the Agreement, therefore, it is Japanese obligated material and tracked in NMMSS.
  2. If any other obligations were assigned to the material, the recovered material will maintain those obligations as well.

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# Tips

- Contact the NRC and keep us informed of any useful information you may obtain from your provider.
- Keep records of communication with the NRC regarding assurances.
- When negotiating imports of material or components for future retransfers, please consult with NRC.

