ACCURACY PERFORMANCE ACCOUNTABILITY

Foreign Obligations Case Study

Presented by:
Mitch Hembree & Len Myers
NMMSS

General 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
These issues are applicable to obligations but were evaluated earlier in the Import/Export Case Study

Obligation Issues to Consider

- Does the license specify appropriate foreign obligations
- Is the correct obligation country code specified
- Does the quantity of obligated material exceed total reported details for that material
- Is the obligation layered (third country obligated)

CASE STUDY 1 – DIRECT IMPORT

A United States DOE facility DOEFAC1 will be receiving a shipment of nuclear material on 8/1/2012 from the Australian facility AUSFAC1 which contain 75,000 grams of Uranium (3000 grams of U235) and 5 kilograms of Plutonium. This shipment is subject to the U.S.-Australian Agreement for Cooperation.

Obligations Case Study

Compare Notice To Industry with Prior Communications

- If a DOE import, receipt of Industry Notice
- Is the quantity stated on the notice consistent
- Is this notice pertinent to shipper and receiver
- Is batch information included
- Are there any 3rd country obligations involved

NOTICE TO SEND TO INDUSTRY

Prior Notification of Proposed Shipment of Nuclear Material from Australia to the United States Pursuant to the U.S.-Australia Agreement for Cooperation

The United States Government advises DOEFAC1 that the following shipment of nuclear material is subject to the U.S.-Australia Agreement for Cooperation and must be tracked in accordance with U.S. rules and regulations.

1. U.S. Reference: ANSTO-999-11
2. Contractual Reference Number – None
3. Shipper's/supplier's name and address: Storage AUSFAC1, KoalaTown, Australia
4. Receiver's name and address DOEFAC1, Intheboonies, AL
5. End user: U.S. DOE
6. Stated end use: Storage at the DOE
7. Expected Date of Shipment: Unknown
8. Batch Number: 11101, 11102, 11103
9. Material Category: LEU, PU
10. Mass (mass of isotope if applicable) 75,000g U (3,000g U235), 5,000g PU
11. Physical Form: Unknown
12. Chemical Form: Unknown
13. Third Country Obligation NONE

Please confirm your receipt of this notice, acknowledging your facility's responsibility to account for the information provided above, by faxing or emailing a signed copy of this form to the person listed below:

For DOE Facilities:

Signature:

Name:

Date:

Comments:

Case 1 Evaluation (Direct Import)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for DOEFAC1 is F08
  - The RIS for AUSFAC1 is RA01
- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the correct NMMSS reporting quantity of enriched uranium in grams
  - The case description shows the quantity of plutonium in kilograms. NMMSS requires plutonium to be reported in grams
- Is the total quantity above NMMSS minimum reporting amount?
  - For enriched uranium and plutonium, NMMSS requires reporting for amounts equal to or greater than 1 gram

THE NUCLEAR MATERIALS MANAGEMENT AND SAFEGUARDS SYSTEM (NMMSS)

NMMSS 2013

USERS ANNUAL TRAINING MEETING

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

Obligations Case Study

Case 1 NMMSS 741 (Receiver Document)

DOE/NRC FORM 741
(8-2008) Previous editions are obsolete
MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150,
Public Laws 83-703, 93-438, 95-91

U.S. DEPARTMENT OF ENERGY
AND
U.S. NUCLEAR REGULATORY

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011
Estimated burden per response to comply with this mandatory collection request: 1 hour and 15 minutes. This
IAEA accounting reports that show changes in inventory of nuclear materials. Send
n estimate to the Records and FOIA Privacy Services Branch (T-5 F53), U.S. Nuclear
ashington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk
n and Regulatory Affairs, NEOB-10202, (3150-0003), Office of Management and Budget,
means used to impose an information collection does not display a currently valid OMB
ay not conduct or sponsor, and a person is not required to respond to, the information

NUCLEAR MATERIAL TRANSACTION REPORT

Action Code: B

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE a. SHIPPER	b. RECEIVER	6. ACTION CODE a. SHIPPER	b. RECEIVER	7. DOCUMENTATION (Only if document is classified SECRET) PAGE OF PAGES COPY OF COPIES SERIES
RA01	F08	15			A		B	

Shipper:RA01 Receiver:F08

10. NO OF DATA LINES 2

Oblg. Country : 31

MT: 20
50

Total: 75,000;3,000 enriched
5,000;0 plutonium

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	21. OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	31	20	75,000	3,000
2	31	50	5,000	0

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT			
b. SHIPPER'S CORRECTION			
c. RECEIPT	08	01	2012

Date:
8/1/2012

26. SHIPPER'S DATA																		
BACK REFERENCE NUMBER a	LINE NO. b	TYPE OF INV. CHANGE c	IDENTIFICATION (ITEM/BATCH NAME) d	NO. OF ITEMS e	PROJECT NUMBER f	MATERIAL TYPE g	COMP/ FACILITY CODE h	OWNER CODE i	KEY MEAS. POINT j	MEAS. IDENT. k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l	NET WEIGHT m	ELEMENT WEIGHT n	ELEMENT LIMIT OF ERROR o		
	01		11101,11102	2		20		J							75,000		4.0	3,000
	02		11103	1		50		J							5,000			0

26s. SHIPPER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

27s. RECEIVER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

Receiver Detail

Batch Number

MT: 20
50

Total: 75,000;3,000 enriched
5,000;0 plutonium

WARNING: FALSE STATEMENTS ... MAY BE SU ... OR CRIMINAL PENALTIES. NRC
BE COMPLETE AND ACCURAT ... RESPECTS ... 1001 MAKES IT A CRIMINAL O
REPRESENTATION TO ANY DEPA ... OF THE UN ... ANY MATTER WITHIN ITS JURISDI

Case 1 741 Evaluation (Direct Import)

- Is the obligation country code valid?
  - 31 is the correct code for Australian obligations
- By material type, is the total amount obligated less than or equal to the sum of detail lines?
  - Enriched uranium obligation total is equal to the sum of material type enriched uranium detail lines
  - Plutonium obligation total is equal to the sum of plutonium detail lines

THE NUCLEAR MATERIALS MANAGEMENT AND SAFEGUARDS SYSTEM (NMMSS)

NMMSS 2013

USERS ANNUAL TRAINING MEETING

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

Obligations Case Study

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U.S. DEPARTMENT OF ENERGY
AND
U.S. NUCLEAR REGULATORY COMMISSION

NUCLEAR MATERIAL TRANSACTION REPORT

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1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE		6. ACTION CODE		7. DOCUMENTATION (Only if document is classified SECRET)
RA01	F08	15		a. SHIPPER A	b. RECEIVER	a. SHIPPER A	b. RECEIVER	PAGE OF PAGES COPY OF COPIES SERIES

8a. NAME AND ADDRESS OF SHIPPER — b. LICENSE NO. — c. ATTENTION: — d. TELEPHONE:

9a. NAME AND ADDRESS OF RECEIVER — b. LICENSE NO. — c. ATTENTION: — d. TELEPHONE:

10. NO OF DATA LINES 2 — 11. NATURE OF TRANSACTION — 12a. SHIPPED FROM — SHIPPED TO ACCOUNT OF — b. RIS — NO. — DISTRIBUTION OF COPIES

Action Code: A

Date: 6/1/2012

14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER — 15. EXPORT OR IMPORT TRANSFERS: LICENSE NO.

16. MATERIAL TYPE AND DESCRIPTION

23a. — b. CONCISE NOTE ATTACHED — c. UK REPORTABLE? YES NO

Shipper Detail

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	21. OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	31	20	75,000	3,000
2	31	50	5,000	0

24. TOTAL GROSS WEIGHT — 25. TOTAL VOLUME (Waste Transfers Only)

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT	06	01	2012
b. SHIPPER'S CORRECTION			
c. RECEIPT			
d. RECEIVER'S MEASUREMENT			
e. RECEIVER'S CORRECTION			

26. SHIPPER'S DATA

BACK REFERENCE NUMBER a.	LINE NO. b.	TYPE OF INV. CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS. POINT j.	MEAS. IDENT k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.
	01		11101.11102	2		20		J							75.000		4.0	3.000	
	02		11103	1		50		J							5.000			0	

26s. SHIPPER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

27s. RECEIVER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

27. RECEIVER'S DATA

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 STUDY 2 – Retransfer to the U.S.

A U.S. NRC facility IDOOBLGS will be receiving a shipment of nuclear material on 10/8/2012 from a facility in Sweden (IMASWEDE) which contain the following:

- 750,000 grams of uranium (5,500 grams of U235) subject to U.S.-Euratom Agreement for Cooperation
- 2,500,000 grams of uranium (110,000 grams of U235) subject to U.S. Australia/Euratom combination Agreement for Cooperation
- 2,550,000 grams of uranium (117,000 grams of U235) subject to U.S. Canada/Euratom combination Agreement of Cooperation

Obligations Case Study

Compare Notification of Import with Prior Communication

- NRC notifies facilities of foreign obligation notices from agreement entities
- Are the following items consistent
  - Shipper and receiver
  - Shipment date
  - Mass
  - Third country obligations

EURATOM

Prior Notification of US Import

1	Shipper:	IDOOBLGS		
2	Receiver:	IMASWEDE		
3	Receipt RIS:	F10		
4	Date of shipment:	8/1/2012		
5	Category of Material:	LEU		
		Element	Isotope	
6	Mass:	5,800,000	232,500	
7	Physical form:	fuel rods		
			Element	Isotope
8	Third country obligations:	Canada	2,500,000	110,000
		Australia	2,550,000	117,000

Total Uranium
5,050,000;227,000

Case 2 Evaluation (Retransfer)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for IDOOBLGS is F10
  - The RIS for IMASWEDE is RW01
- Is the reporting unit used appropriate for NMMSS reporting?
  - The case description shows the correct NMMSS reporting quantities of enriched uranium in grams
- Is the total quantity above NMMSS minimum reporting amount?
  - For enriched uranium and plutonium, NMMSS requires reporting for amounts equal to or greater than 1 gram

Obligations Case Study

Case 2 NMMSS 741 (Receiver Document)

DOE/NRC FORM 741
(8-2008) Previous editions are obsolete
MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150,
Public Laws 83-703, 93-438, 95-91

U.S. DEPARTMENT OF ENERGY
AND
U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011

NUCLEAR MATERIAL TRANSACTION REPORT

Action Code: B

Shipper:RW01 Receiver:F10

Total: 5,800,000 g element,
232,000 g isotope

MT: EG

Oblg. Country :
33 (Euratom)
91 (Australia/Euratom)
92 (Canada/Euratom)

Date: 9/08/2012

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE a. SHIPPER	b. RECEIVER A	6. ACTION CODE a. SHIPPER	b. RECEIVER B
RW01	F10	9989					

10. NO OF DATA LINES 6

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	21. OBLIGATED ISOTOPE WEIGHT For Enriched Ura
1	33	EG	750,000	5,500
2	91	EG	2,500,000	110,000
3	92	EG	2,550,000	117,000

c. RECEIPT 09 08 2012
d. RECEIVER'S MEASUREMENT
e. RECEIVER'S CORRECTION

Receiver Detail

Batch Number

# of Items: 2310

Material Type: EG

Total Weight: 5,800,000 g element
232,000 g isotope

27. RECEIVER'S DATA

01	B2001	700	EG	J	1,350,000	4.4	60,500
02	B2011	10	EG	J	75,000	1.3	1,000
03	B3999	400	EG	J	280,000	2.14	6,000
04	B409	400	EG	J	795,000	3.774	30,000
05	B100	200	EG	J	350,000	4.3	15,000
06	B009	600	EG	J	2,950,000	4.07	120,000

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Obligations Case Study

Case 2 NMMSS 741 (Shipper Document)

DOE/NRC FORM 741
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MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150.
Public Laws 83-703, 93-438, 95-91

U.S. DEPARTMENT OF ENERGY AND U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011
Estimated burden per response to comply with this mandatory collection request: 1 hour and 15 minutes. This information is required for IAEA accounting reports that show changes in inventory of nuclear materials. Send comments regarding burden estimate to the Records and FOIA Privacy Services Branch (T-5 F53), U.S. Nuclear ... DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk ... latory Affairs, NEOB-10202, (3150-0003), Office of Management and Budget, ... ed to impose an information collection does not display a currently valid OMB ... duct or sponsor, and a person is not required to respond to, the information

NUCLEAR MATERIAL TRANSACTION REPORT

Action Code: A

Date: 8/1/2012

Shipper's Detail

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE		7. DOCUMENTATION (Only if document is classified SECRET)
RW01	F10	9989		a. SHIPPER A	b. RECEIVER	PAGE OF PAGES COPY OF COPIES SERIES

8.a. NAME AND ADDRESS OF SHIPPER — b. LICENSE NO. — c. ATTENTION: — d. TELEPHONE:

9.a. NAME AND ADDRESS OF RECEIVER — b. LICENSE NO. — c. ATTENTION: — d. TELEPHONE:

10. NO OF DATA LINES 6 — 11. NATURE OF TRANSACTION — 12.a. SHIPPED FOR ACCOUNT OF — b. RIS — 13.a. SHIPPED TO ACCOUNT OF — b. RIS

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14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER

15. EXPORT OR IMPORT TRANSFERS: LICENSE NO.

16. MATERIAL TYPE AND DESCRIPTION

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	21. OBLIGATED ISOTOPE WEIGHT For Enriched Uranium ONLY
1	33	EG	750,000	5,500
2	91	EG	2,500,000	110,000
3	92	EG	2,550,000	117,000

	(MM)	(DD)	(YYYY)
a. SHIPMENT	08	01	2012
b. SHIPPER'S CORRECTION			
c. RECEIPT			
d. RECEIVER'S MEASUREMENT			
e. RECEIVER'S CORRECTION			

23a. — b. CONCISE NOTE ATTACHED — c. UK REPORTABLE? YES NO

24. TOTAL GROSS WEIGHT — 25. TOTAL VOLUME (Waste Transfers Only)

26. SHIPPER'S DATA

BACK REFERENCE NUMBER a.	LINE NO b.	TYPE OF INV CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS POINT j.	MEAS. IDENT k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.
	01		B2001	700		EG		J							1.350.000		4.4	60.500	
	02		B2011	10		EG		J							75.000		1.3	1.000	
	03		B3999	400		EG		J							280.000		2.14	6.000	
	04		B409	400		EG		J							795.000		3.774	30.000	
	05		B100	200		EG		J							350.000		4.3	15.000	
	06		B009	600		EG		J							2.950.000		4.07	120.000	

26s. SHIPPER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

27s. RECEIVER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED

27. RECEIVER'S DATA

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CASE STUDY 3 – Domestic Obligation Exchange

A United States facility DOEFAC1 will be exchanging obligations with U.S. facility IDOOBLGS. The following obligations will be exchanged.

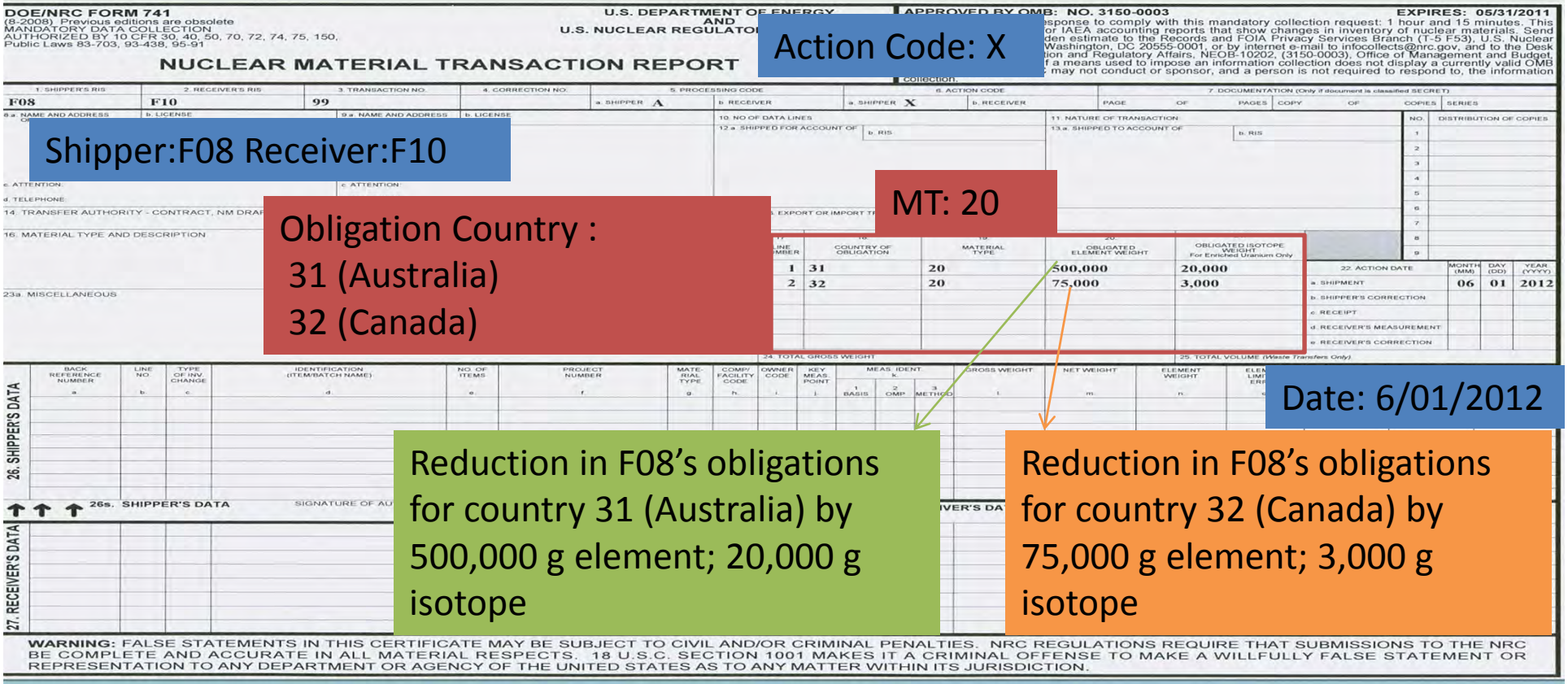
- 500,000 grams of uranium (20,000 grams of U235) obligated to Australia
- 75,000 grams of uranium (3,000 grams of U235) obligated to Canada

Case 3 Evaluation (Obligation Exchange)

- Are the shipper and receiver valid NMMSS RIS?
  - The RIS for DOEFAC1 is F08
  - The RIS for IDOOBLGS is F10
- 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.

Obligations Case Study

Case 3 NMMSS 741 (Shipper Side Exchange)



Obligations Case Study

Case 3 NMMSS 741 (Receiver Side Exchange)

DOE/NRC FORM 741
(8-2008) Previous editions are obsolete
MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150,
Public Laws 83-703, 93-438, 95-91

U.S. DEPARTMENT OF ENERGY AND U.S. NUCLEAR REGULATO

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011

esponse to comply with this mandatory collection request: 1 hour and 15 minutes. This or IAEA accounting reports that show changes in inventory of nuclear materials. Send den estimate to the Records and FOIA Privacy Services Branch (T-5 F53), U.S. Nuclear Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk tion and Regulatory Affairs, NEOB-10202, (3150-0003), Office of Management and Budget, f a means used to impose an information collection does not display a currently valid OMB may not conduct or sponsor, and a person is not required to respond to, the information collection.

NUCLEAR MATERIAL TRANSACTION REPORT

Action Code: Y

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE		6. ACTION CODE		7. DOCUMENTATION (Only if document is classified SECRET)			
F08	F10	99		a. SHIPPER	b. RECEIVER A	a. SHIPPER	b. RECEIVER Y	PAGE OF PAGES	COPY OF COPIES	SERIES	

8a. NAME AND ADDRESS OF SHIPPER | b. LICENSE NO. | c. ATTENTION: | d. TELEPHONE:

9a. NAME AND ADDRESS OF RECEIVER | b. LICENSE NO. | c. ATTENTION: | d. TELEPHONE:

10. NO OF DATA LINES | 12a. SHIPPED FOR ACCOUNT OF | b. RIS

11. NATURE OF TRANSACTION | 13a. SHIPPED TO ACCOUNT OF | b. RIS

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14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER

15. EXPORT OR IMPORT TRANSFERS: LICENSE NO.

16. MATERIAL TYPE AND DESCRIPTION

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	21. OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	31	20	500,000	20,000
2	32	20	75,000	3,000

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT	06	01	2012
b. SHIPPER'S CORRECTION			
c. RECEIPT			
d. RECEIVER'S MEASUREMENT			
e. RECEIVER'S CORRECTION			

23a. MISCELLANEOUS | b. CONCISE NOTE ATTACHED | c. UK REPORTABLE? YES NO

24. TOTAL GROSS WEIGHT | 25. TOTAL VOLUME (Waste Transfers Only)

26. SHIPPER'S DATA

BACK REFERENCE NUMBER a.	LINE NO. b.	TYPE OF INV. CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS. POINT j.	MEAS. IDENT k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.

26s. SHIPPER'S DATA | SIGNATURE OF AU

27. RECEIVER'S DATA | VER'S DA

Increase in F10's obligations for country 31 (Australia) by 500,000 g element; 20,000 g isotope

Increase in F10's obligations for country 32 (Canada) by 75,000 g element; 3,000 g isotope

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CASE STUDY 4 – Correcting Obligations

A U.S. facility Superduper (RIS F08) reported receiving a shipment of nuclear material on 3/1/2012 from the U.S. facility FantasticPlace (RIS F12) which contained 75,000 grams of Uranium (3000 grams of U235) and 5,000 grams of Plutonium. All of the uranium quantities were obligated to Japan. All of the plutonium was obligated to Euratom.

Obligations Case Study

Case 4 NMMSS 741 (Original Document)

DOE/NRC FORM 741
(8-2008). Previous editions are obsolete
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AND
U.S. NUCLEAR REGULATOR

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on and Regulatory Affairs, NEOB-10202, (3150-0003), Office of Management and Budget,
a means used to impose an information collection does not display a currently valid OMB
may not conduct or sponsor, and a person is not required to respond to, the information

NUCLEAR MATERIAL TRANSACTION REPORT

Action Code: A

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE	6. ACTION CODE	7. DOCUMENTATION (Only if document is classified SECRET)
F12	F08	77		a. SHIPPER A b. RECEIVER	a. SHIPPER A b. RECEIVER	PAGE OF PAGES COPY OF COPIES SERIES

Shipper:F12 Receiver:F08

MT: 20
50

Total: 75,000;3,000 enriched
5,000;0 plutonium

Obligation Country :
34 (Japan)
33 (Euratom)

LINE NUMBER	COUNTRY OF OBLIGATION	MATERIAL TYPE	OBLIGATED ELEMENT WEIGHT	OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	34	20	75,000	3,000
2	33	50	5,000	0

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT	03	01	2012
b. SHIPPER'S CORRECTION			

Date: 3/20/2012

BACK REFERENCE NUMBER a.	LINE NO. b.	TYPE OF INV CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS POINT j.	MEAS. IDENT. k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.
	1			1		20		J							75.000		4.0	3.000	
	2			1		50		J							5.000			0	

Shipper Detail

Material Type: 20
50

Total: 75,000;3,000 enriched
5,000;0 plutonium

27s. RECEIVER'S DATA

NOTE: The reported enriched uranium is **INCORRECT**! A correction must be submitted to change the weights to 55,000 element and 2,000 isotope.

WARNING: FALS
BE COMPLETE
REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

Obligations Case Study

Case 4 NMMSS 741 (Correction Option 1)

DOE/NRC FORM 741
(8-2008) Previous editions are obsolete
MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150,
Public Laws 83-703, 93-438, 95-91

NUCLEAR MATER

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011

Correction: 1

Action Code: C

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE		6. ACTION CODE	
F12	F08	77	1	a. SHIPPER A	b. RECEIVER	a. SHIPPER C	b. RECEIV

Original: 75,000; 3,000
Correction 1: -20,000;-1,000
New 34 Total: 55,000; 2,000

MT: 20

Obligation Country :
34 (Japan)

17. LINE NUMBER	18. COUNTRY OF OBLIGATION	19. MATERIAL TYPE	20. OBLIGATED ELEMENT WEIGHT	OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	34	20	-20,000	-1,000

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT	03	01	2012
b. SHIPPER'S CORRECTION			
c. RECEIPT			
d. RECEIVER'S MEASUREMENT			
e. RECEIVER'S CORRECTION			

26. SHIPPER'S DATA

BACK REFERENCE NUMBER a.	LINE NO. b.	TYPE OF INV. CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS. POINT j.	MEAS. IDENT. k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.
001	1			-1		20		J							-75.000		4.0	-3.000	
101	2			1		20		J							55.000		3.63	2.000	

Material Type: 20

Original: 75,000; 3,000
Correction 1: -75,000;-3,000
Correction 1: 55,000; 2,000
New MT20 Total: 55,000; 2,000

26s. SHIPPER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED — 27s. RECEIVER'S DA

27. RECEIVER'S DATA

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. N
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.

Obligations Case Study

Case 4 NMMSS 741 (Correction Option 2)

DOE/NRC FORM 741
(8-2008) Previous editions are obsolete
MANDATORY DATA COLLECTION
AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150, Public Laws 83-703, 93-438, 95-91

NUCLEAR MATER

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 05/31/2011

Correction: 1

Action Code: C

Original: 75000, 3000
Correction 1: -75000,-3000
Correction 1: 55000, 2000
New 34 Total: 55000, 2000

MT: 20

Obligation Country :
34 (Japan)

1. SHIPPER'S RIS	2. RECEIVER'S RIS	3. TRANSACTION NO.	4. CORRECTION NO.	5. PROCESSING CODE		6. ACTION CODE	
F12	F08	77	1	a. SHIPPER A	b. RECEIVER	a. SHIPPER C	b. RECEIVE

LINE NUMBER	COUNTRY OF OBLIGATION	MATERIAL TYPE	OBLIGATED ELEMENT WEIGHT	OBLIGATED ISOTOPE WEIGHT For Enriched Uranium Only
1	34	20	-75,000	-3,000
2	34	20	55,000	2,000

22. ACTION DATE	MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT	03	01	2012
b. SHIPPER'S CORRECTION			
c. RECEIPT			
d. RECEIVER'S MEASUREMENT			
e. RECEIVER'S CORRECTION			

26. SHIPPER'S DATA

BACK REFERENCE NUMBER a.	LINE NO. b.	TYPE OF INV. CHANGE c.	IDENTIFICATION (ITEM/BATCH NAME) d.	NO. OF ITEMS e.	PROJECT NUMBER f.	MATERIAL TYPE g.	COMP/ FACILITY CODE h.	OWNER CODE i.	KEY MEAS. POINT j.	MEAS. IDENT. k. 1 BASIS	2 OMP	3 METHOD	GROSS WEIGHT l.	NET WEIGHT m.	ELEMENT WEIGHT n.	ELEMENT LIMIT OF ERROR o.	WEIGHT % ISOTOPE p.	ISOTOPE WEIGHT q.	ISOTOPE LIMIT OF ERROR r.
001	1			-1		20		J							-75.000		4.0	-3.000	
101	2			1		20		J							55.000		3.63	2.000	

Material Type: 20

Original: 75000, 3000
Correction 1: -75000,-3000
Correction 1: 55000, 2000
New MT20 Total: 55000, 2000

26s. SHIPPER'S DATA — SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED — 27s. RECEIVER'S DATA

27. RECEIVER'S DATA

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NR 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.

Obligations Case Study

How Does NMMSS Process Obligations

Shipment, Receipt, Obligation Exchange Transactions (741)

Facility Obligation Balances (**for entity/material**)

In-Place Transactions (741)

Obligation quantities increase or decrease Facility obligation balances based on the nature of the action (**for entity/material**)

Facility obligation balances will increase if obligation quantities are positive and decrease if obligation quantities are negative (**for entity/material**)

Obligations Case Study

Summary

Watch the sign of your obligation!
A positive quantity is not always an increase to your obligations!

Licensees
Do not forget to report obligations on your material balance reports.

Obligations are reconciled at facility level as well as with agreement entities

Do not report more obligations than you are shipping or receiving.

Obligations are cumulative.

Review the IA-OBL-05 report to verify Facility Obligation Balances.

Is your obligation layered?
Be sure and use the correct obligation country code.

Obligations Case Study

Questions?