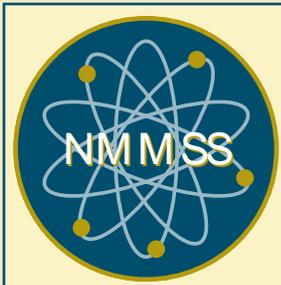


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NRC Reconciliation Training

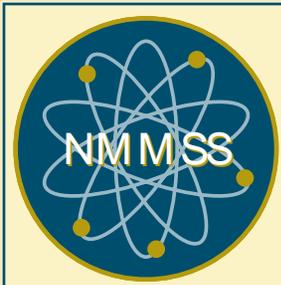
Ron Bonifay
NMMSS



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Database Systems Applied to Reconciliation

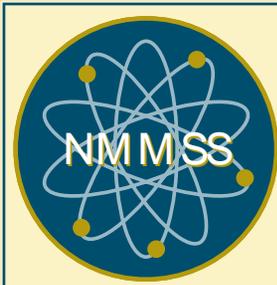
- Transactions
- Inventory
- Material Balance



Role of Transactions

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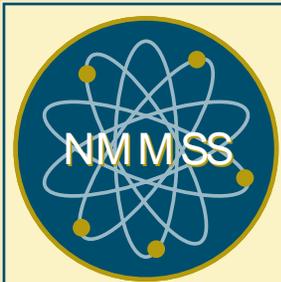
- Used to generate the NMMSS M-742 Report used in reconciliation
- Used to generate facilities book inventory
- Used to report on-site gains and losses with action code “**M**”



Training Objectives for the Transaction System

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- Know how In-Place gains and losses relate to the DOE/NRC Form 742
- List and describe three of the nine In-Place gain inventory change type codes
- List and describe five of the twelve In-Place loss inventory change type codes
- Know that the current guidance contains descriptions of each inventory change type code.



ON-SITE GAINS AND LOSSES

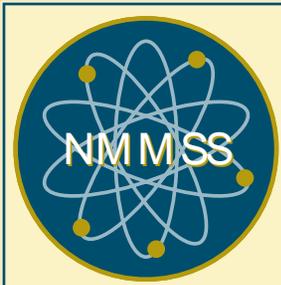
Action Code M

RECEIPTS: (GAINS)

Inventory Change Type (Use Code)	Type of Inventory Change
NP	Production
EN*	From Other Materials (ED,NE,ND,DE,DN,EE)
34	Receipts - Miscellaneous

* Use the correct change code when performing blending operations

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ON-SITE GAINS AND LOSSES

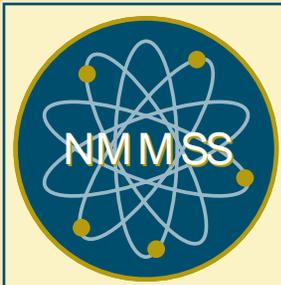
Action Code M

REMOVALS: (LOSSES)

Inventory Change Type (Use Code)	Type of Inventory Change*
TN	Decay
EN*	To Other Materials (ED,NE,ND,DE,DN,EE)
54	Shipments – Miscellaneous
LN	Fission and Transmutation
LD	Normal Operational Losses and/or Measured Discards
MF	Inventory Difference

Please refer to NUREG/BR-0006 for a list of all ICT Codes

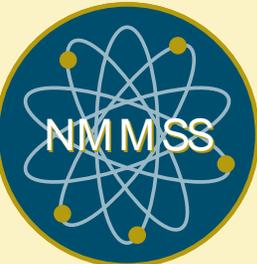
* Use the correct change code when performing blending operations



Special Considerations

Action Code “M” Used for Inventory Adjustments

- Exceptions to normal edit requirements
- One party transactions
- Type 3 (import/export) and type 4 (gross weight) records do not apply
- Inventory change type/use code required



Example: Inventory Adjustment Internal Transaction

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DOE/NRC FORM 741 (4-2005). 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: 04/30/2008	
NUCLEAR MATERIAL TRANSACTION REPORT							
1. SHIPPER'S RIS EEE		2. RECEIVER'S RIS EEE		3. TRANSACTION NO.		4. CORRECTION NO. 053106	
5. PROCESSING CODE A		6. ACTION CODE M		7. DOCUMENTATION (Only if document is classified SECRET)		8. SHIPPER A	
9. NAME AND ADDRESS OF SHIPPER		10. NO OF DATA LINES 5		11. NATURE OF TRANSACTION		12. SHIPPED FOR ACCOUNT OF	
13. SHIPPED TO ACCOUNT OF		14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER		15. EXPORT OR IMPORT TRANSFER: LICENSING		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		22. ACTION DATE a. SHIPMENT b. SHIPPER'S CORRECTION c. RECEIPT d. RECEIVER'S MEASUREMENT e. RECEIVER'S CORRECTION		23. MISCELLANEOUS		24. TOTAL GROSS WEIGHT	
25. TOTAL VOLUME (Waste Transfers Only)		26. SHIPPER'S DATA		27. RECEIVER'S DATA		28. SHIPPER'S DATA	
29. SHIPPER'S DATA		30. SHIPPER'S DATA		31. SHIPPER'S DATA		32. SHIPPER'S DATA	
33. SHIPPER'S DATA		34. SHIPPER'S DATA		35. SHIPPER'S DATA		36. SHIPPER'S DATA	
37. SHIPPER'S DATA		38. SHIPPER'S DATA		39. SHIPPER'S DATA		40. SHIPPER'S DATA	
41. SHIPPER'S DATA		42. SHIPPER'S DATA		43. SHIPPER'S DATA		44. SHIPPER'S DATA	
45. SHIPPER'S DATA		46. SHIPPER'S DATA		47. SHIPPER'S DATA		48. SHIPPER'S DATA	
49. SHIPPER'S DATA		50. SHIPPER'S DATA		51. SHIPPER'S DATA		52. SHIPPER'S DATA	
53. SHIPPER'S DATA		54. SHIPPER'S DATA		55. SHIPPER'S DATA		56. SHIPPER'S DATA	
57. SHIPPER'S DATA		58. SHIPPER'S DATA		59. SHIPPER'S DATA		60. SHIPPER'S DATA	
61. SHIPPER'S DATA		62. SHIPPER'S DATA		63. SHIPPER'S DATA		64. SHIPPER'S DATA	
65. SHIPPER'S DATA		66. SHIPPER'S DATA		67. SHIPPER'S DATA		68. SHIPPER'S DATA	
69. SHIPPER'S DATA		70. SHIPPER'S DATA		71. SHIPPER'S DATA		72. SHIPPER'S DATA	
73. SHIPPER'S DATA		74. SHIPPER'S DATA		75. SHIPPER'S DATA		76. SHIPPER'S DATA	
77. SHIPPER'S DATA		78. SHIPPER'S DATA		79. SHIPPER'S DATA		80. SHIPPER'S DATA	
81. SHIPPER'S DATA		82. SHIPPER'S DATA		83. SHIPPER'S DATA		84. SHIPPER'S DATA	
85. SHIPPER'S DATA		86. SHIPPER'S DATA		87. SHIPPER'S DATA		88. SHIPPER'S DATA	
89. SHIPPER'S DATA		90. SHIPPER'S DATA		91. SHIPPER'S DATA		92. SHIPPER'S DATA	
93. SHIPPER'S DATA		94. SHIPPER'S DATA		95. SHIPPER'S DATA		96. SHIPPER'S DATA	
97. SHIPPER'S DATA		98. SHIPPER'S DATA		99. SHIPPER'S DATA		100. SHIPPER'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.



Example: Inventory Adjustment Internal Transaction

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DOE/NRC FORM 741
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 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
 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 Regulatory Commission, Washington, DC 20503. If a means used to control number, the NRC may not conduct collection.

EXPIRES: 04/30/2008

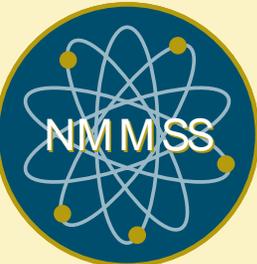
NUCLEAR MATERIAL TRANSACTION REPORT

1. SHIPPER'S RIS EEE		2. RECEIVER'S RIS EEE		3. TRANSACTION NO.		4. CORRECTION NO. 053106		5. PROCESSING CODE a. SHIPPER A		6. ACTION CODE a. SHIPPER M		7. DOCUMENTATION (Only if document is classified SECRET)	
8. NAME AND ADDRESS OF SHIPPER		9. NAME AND ADDRESS OF RECEIVER		10. NO OF DATA LINES 5		11. NATURE OF TRANSACTION		12. SHIPPED FOR ACCOUNT OF		13. SHIPPED TO ACCOUNT OF		14. DISTRIBUTION OF COPIES	
15. EXPORT OR IMPORT TRANSFER: LICENSING		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	
22. ACTION DATE a. SHIPMENT b. SHIPPER'S CORRECTION c. RECEIPT d. RECEIVER'S MEASUREMENT e. RECEIVER'S CORRECTION		23. MISCELLANEOUS		24. TOTAL GROSS WEIGHT		25. TOTAL VOLUME (Waste Transfers Only)		MONTH		DAY		YEAR	
26. SHIPPER'S DATA		26a. SHIPPER'S DATA		SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED		27. RECEIVER'S DATA		SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED		27. RECEIVER'S DATA		SIGNATURE OF AUTHORIZED OFFICIAL AND DATE SIGNED	

BACK REFERENCE NUMBER	LINE NO.	TYPE OF INV. CHANGE	IDENTIFICATION (ITEM/BATCH/NAME)	NO. OF ITEMS	PROJECT NUMBER	MATERIAL TYPE	COMPT. FACILITY CODE	OWNER CODE	KEY MEAS. POINT	MEAS. IDENT.	GROSS WEIGHT	NET WEIGHT	ELEMENT WEIGHT	ELEMENT LIMIT OF ERROR	WEIGHT % ISOTOPE	ISOTOPE WEIGHT	ISOTOPE LIMIT OF ERROR
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
	1	65	ROUNDING BIAS			20	J	J								-1	
	2	TN	DECAY			50	309	J				2			50.00	1	
	3	LN	F & T			20	309	J							80.00	4	
	4	MF	INV. DIFFERENCE			50	J	J				-3					
	5	NP	PRODUCTION			50	309	J				300			33.00	100	

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DOE/NRC FORM 741 (4-2005) PRINTED ON RECYCLED PAPER



Example: Inventory Adjustment Internal Transaction

Training Meeting
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DOE/NRC FORM 741 (4-2005) Previous editions are obsolete. MANDATORY DATA COLLECTION AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150, Public Law 93-703, 93-436, 96-21

U.S. DEPARTMENT OF ENERGY AND NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0003 EXPIRES: 04/30/2008

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NUCLEAR MATERIAL TRANSACTION REPORT

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8.a. NAME AND ADDRESS OF SHIPPER		8. LICENSE NO.		9.a. NAME AND ADDRESS OF RECEIVER		9. LICENSE NO.		10. NO OF DATA LINES 5 12.a. SHIPPED FOR ACCOUNT OF		11. NATURE OF TRANSACTION 13.a. SHIPPED TO ACCOUNT OF		14. DISTRIBUTION OF COPIES	
16. MATERIAL TYPE AND DESCRIPTION				17. U.S. LICENSE NUMBER		18. COUNTRY OF ORIGIN		19. MATERIAL TYPE		20. ORIGINATED ELEMENT WEIGHT		21. DELIVERED ISOTOPE WEIGHT For Shipment (Gross Net)	
14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER				15. EXPORT OR IMPORT TRANSFER LICENSE NO.				22. ACTION DATE		MONTH (MM) DAY (DD) YEAR (YYYY)		23. REPORT	

NUCLEAR MATERIAL TRANSACTION REPORT

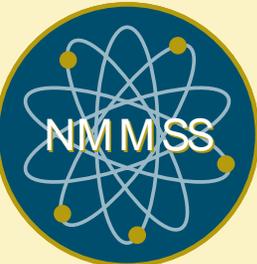
Washington, DC 20503. If a means used to control number, the NRC may not conduct the information collection.

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8.a. NAME AND ADDRESS OF SHIPPER		8. LICENSE NO.		9.a. NAME AND ADDRESS OF RECEIVER		9. LICENSE NO.		10. NO OF DATA LINES 5 12.a. SHIPPED FOR ACCOUNT OF		11. NATURE OF TRANSACTION 13.a. SHIPPER	

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

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NMMSS
 Originator
 Sponsor
 the



Example: Inventory Adjustment Internal Transaction

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**U.S. DEPARTMENT OF ENERGY
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EXPIRES: 04/30/2008

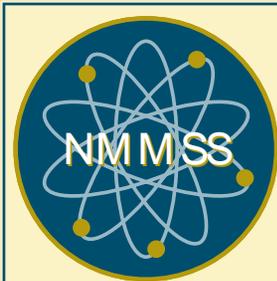
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14. TRANSFER AUTHORITY - CONTRACT, NM DRAFT, OR ORDER NUMBER				15. EXPORT OR IMPORT TRANSFER: LICENSING								16. MATERIAL TYPE AND DESCRIPTION			
23a. MISCELLANEOUS				b. CONCISE NOTE ATTACHED <input type="checkbox"/>				c. UK REPORTABLE? <input type="checkbox"/> YES <input type="checkbox"/> NO				24. TOTAL GROSS WEIGHT			
25. SHIPPER'S DATA				26. SHIPPER'S DATA				27. RECEIVER'S DATA				28. RECEIVER'S DATA			

REFERENCE NUMBER	NO. OF INV. CHANGE	ITEM(S) (ITEMS/DISPATCH NAME)	ITEMS	FURNISH NUMBER	MATERIAL TYPE	FACILITY CODE	INVENTORY CODE	MEAS. IDENT.	GROSS WEIGHT	NET WEIGHT	ELEMENT WEIGHT	ELEMENT LIMIT OF ERROR	WEIGHT % ISOTOPE	ISOTOPE WEIGHT	ISOTOPE LIMIT OF ERROR
1	65	ROUNDING BIAS			20		J							-1	
2		TN DECAY			50	309	J				2		50.00	1	
3		LN F & T			20	309	J				5		80.00	4	
4		MF INV. DIFFERENCE			50		J				-3				
5		NP PRODUCTION			50	309	J				300		33.00	100	

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26. SHIPPER'S DATA	BACK REFERENCE NUMBER	LINE NO.	TYPE OF INV. CHANGE	IDENTIFICATION (ITEM/BATCH NAME)	NO. OF ITEMS	PROJECT NUMBER	MATERIAL TYPE	COMP/FACILITY CODE	OWNER CODE
	a.	b.	c.	d.	e.	f.	g.	h.	i.
	1		65	ROUNDING BIAS				20	
2		TN	DECAY				50	309	J
3		LN	F & T				20	309	J
4		MF	INV. DIFFERENCE				50		J
5		NP	PRODUCTION				50	309	J

23a. MISCELLANEOUS K. CONCISE NOTE ATTACHED
 L. IN REPORTABLE YES

26. SHIPPER'S DATA	BACK REFERENCE NUMBER	LINE NO.	TYPE OF INV. CHANGE	IDENTIFICATION (ITEM/BATCH NAME)	NO. OF ITEMS	PROJECT NUMBER	UNIT
	a.	b.	c.	d.	e.	f.	g.
1		65	ROUNDING BIAS				20
2		TN	DECAY				50
3		LN	F & T				20
4		MF	INV. DIFFERENCE				50
5		NP	PRODUCTION				50

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

22. ACTION DATE				MONTH (MM)	DAY (DD)	YEAR (YYYY)
a. SHIPMENT				05	31	2006
b. SHIPPER'S CORRECTION						
c. RECEIPT						
d. RECEIVER'S MEASUREMENT						
e. RECEIVER'S CORRECTION						

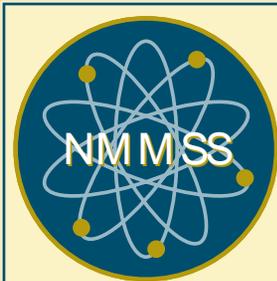
25. TOTAL VOLUME (Waste Transfers Only)

ELEMENT WEIGHT	ELEMENT LIMIT OF ERROR	WEIGHT % ISOTOPE	ISOTOPE WEIGHT	ISOTOPE LIMIT OF ERROR
n.	o.	p.	q.	r.
			-1	
2		50.00	1	
5		80.00	4	
-3				
300		33.00	100	

27. RECEIVER'S DATA

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND CRIMINAL PENALTIES. THIS CERTIFICATE MUST BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. § 1011. THIS CERTIFICATE IS A REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES.

DOE/NRC FORM 741 (4-2005)



ICT Code Comparison for Gains Relationship to the MBR

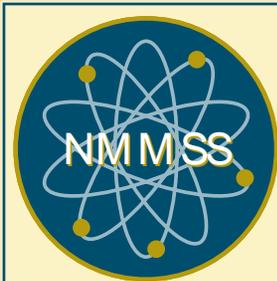
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DOE/NRC Form 742

SECTION A		MATERIAL ACCOUNTABILITY	
7. DOE/NRC 740M ATTACHED	<input type="checkbox"/> YES <input type="checkbox"/> NO	A. ELEMENT WEIGHT	B. ISOTOPE WEIG
8. BEGINNING INVENTORY -- U.S. GOVT-OWNED			
9. BEGINNING INVENTORY -- NOT U.S. GOVT-OWNED			
RECEIPTS			
11. PROCUREMENT FROM DOE	RIS		
FROM:			
13. PROCUREMENT -- FOR THE ACCOUNT OF DOE			
14. DOD RETURNS -- USE A			
15. DOD RETURNS -- USE B			
16. DOD RETURNS -- OTHER USES			
21. PRODUCTION			
22. FROM OTHER MATERIALS	a. ICT b. ICT c. ICT		
30. RECEIPTS REPORTED TO DOE/NRC ON DOE/NRC 741 (not listed elsewhere)			
FROM:	RIS		
34. RECEIPTS -- MISC			

Handwritten annotations on the form:

- A yellow box containing "NP" is placed next to row 21.
- A yellow box containing "Blending Codes: ED, DE, EN, NE,..." is placed next to row 22.
- Arrows point from the "NP" box to row 21 and from the "Blending Codes" box to row 22.

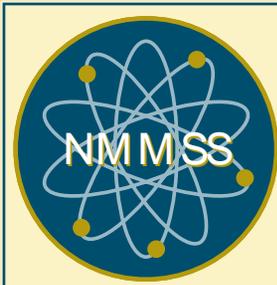


ICT Code Comparison for Losses Relationship to the MBR

DOE/NRC Form 742

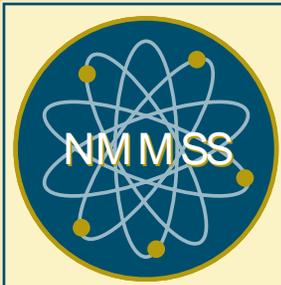
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SECTION A (Continued)	MATERIAL ACCOUNTABILITY	
	A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
54. SHIPMENTS -- MISC		
58. DONATED MATERIAL -- TO U.S. GOVT BY OTHERS		
59. DONATED MATERIAL -- TO OTHERS BY U.S. GOVT		
65. ROUNDING BIAS		
71. DEGRADATION TO OTHER MATERIALS a. ICT b. ICT	← Blending Codes: ED, DE, EN, NE,...	
72. DECAY	← TN	
73. FISSION AND TRANSMUTATION	← LN	
74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS	← LD	
75. ACCIDENTAL LOSSES		
76. APPROVED WRITE-OFFS		
77. INVENTORY DIFFERENCE	← MF	
80. ENDING INVENTORY -- U.S. GOVT OWNED		
81. ENDING INVENTORY -- NOT U.S. GOVT OWNED		
82. TOTAL (lines 41-81)		
83. BIAS ADJUSTMENT		



NMMSS Users Annual Training Meeting
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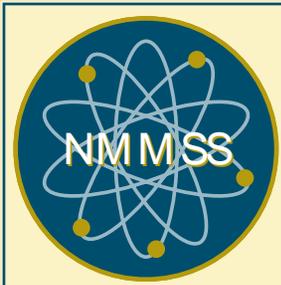
The Inventory System



Training Objectives for the Inventory System

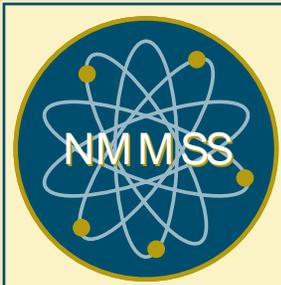
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- Determine when a Physical Inventory Listing (PIL) needs to be reported to NMMSS.
- Identify the correct methods to be used to report inventory data to the NMMSS



Objectives - continued

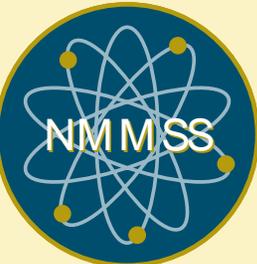
- Be able to locate where the inventory reporting instructions are in the NRC NUREG/BR-0007
- Understand reporting assay codes for enriched uranium and composition codes related to the PIL.



Physical Inventory Listing (PIL) Reporting Instructions

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- Reports are to be made and filed within 60 days of the start of the physical inventory taking for most facilities.
- Licensees who are authorized to possess special nuclear material (SNM) in a quantity totaling more than 350 grams of contained U-235, U-233, plutonium, or any combination thereof.



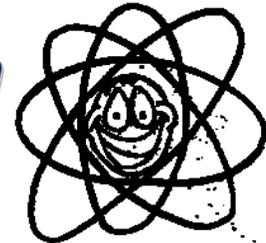
Inventory Defined

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The



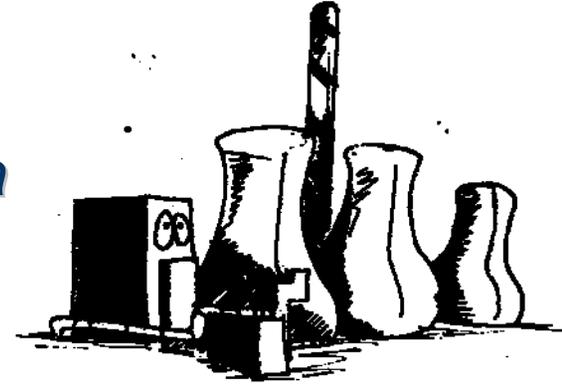
of a given



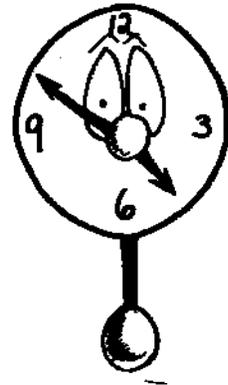
material in the

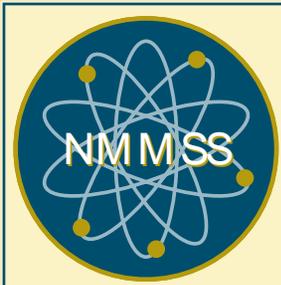


of a



at a specified point in

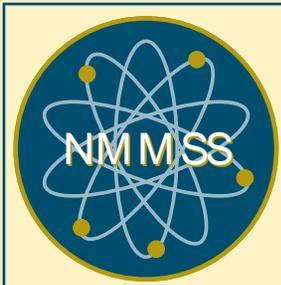




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NRC NUREG/BR-0007

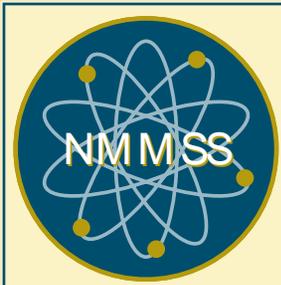
- Contains instructions for submitting inventory data to the NMMSS
- Most facilities report under 10 CFR Part 74.13
- IAEA facilities report under 10 CFR Part 75



Reporting Material Type 20 Assay Ranges

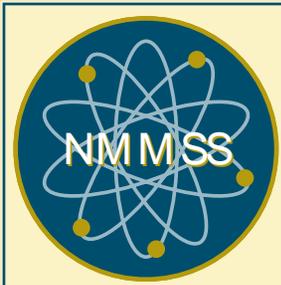
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- Enriched Uranium Assay Ranges
 - E1 Greater than normal < 5%
 - E2 5% or more but < 20%
 - E3 20% or more but < 80%
 - E4 80% or more



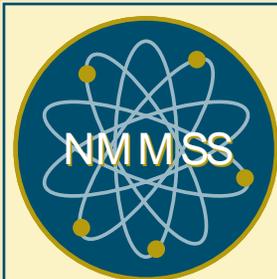
Inventory Composition Codes

- 860 – In reactors and critical assemblies
- 861 – In cooling basins
- 862 – In conversion and fabrication processes
- 863 – In recovery processes
- 864 – Material not in process
- 865 – Unirradiated scrap awaiting recovery
- 866 - Unirradiated scrap awaiting disposal



Inventory Reporting Methods

- Submitting hardcopy use the DOE/NRC Form 742C
- Submitting in electronic format use the D-24 (Personal Computer Data Input for NRC Licensees) for detailed instructions

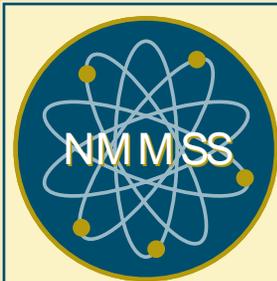


PIL Header Information

DOE/NRC Form 742C

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DOE/NRC FORM 742C <small>(8-2003)</small> 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 PHYSICAL INVENTORY LISTING		APPROVED BY OMB: NO. 3150-0058 <small>Estimated burden per response to comply with this mandatory collection request: 6 hours. This information is required by NRC to fulfill its safeguards responsibilities, bilateral agreements, and responsibilities as a participant in the US/AEA Safeguards Agreement. Send comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0058), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>		EXPIRES: 08/31/2006	
1. NAME AND ADDRESS			2. DOE/NRC FORM 740M ATTACHED		3. REPORTING IDENTIFICATION SYMBOL (RIS)		
STREET ADDRESS			<input type="checkbox"/> YES <input type="checkbox"/> NO				
CITY	STATE	ZIP CODE	4. INVENTORY DATE	5. PROCESS CODE	6. CORRECTION I.D.	7. LICENSE NUMBER(S)	



PIL Signature Information DOE/NRC Form 742C (cont.)

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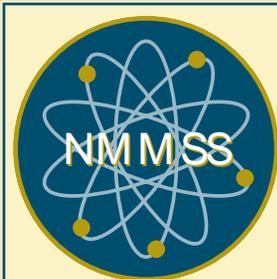
To the best of my knowledge and belief, the information given above and in any attached schedules is true, complete, and correct.

10. SIGNATURE

11. TITLE

12. DATE

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.

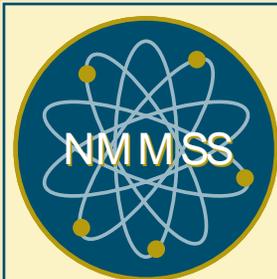


D-24: PIL Electronic Reporting Inventory - Data Code 1

Physical Inventory Listing Header Information (Data Code 1)

<u>Field Description</u>	<u>742C</u>	<u>80 Column File</u>		<u>Type</u>	<u>Essential</u>	<u>Note</u>
		<u>Format</u>	<u>Position</u>			
		<u>Begin</u>	<u>End</u>			
Data Code	-	1	1	Num(1)	✓	Value is 1
Inventory Report Date ^[1]	4	2	9	Date	✓	MMDDYYYY
RIS	3	10	13	Char(4)	✓	Left justified
Material Type Code	8A	14	15	Char(2)	✓	Left justified
Composition-Facility Code ^[2]	8B	16	19	Char(4)	✓	Left justified
Element Weight	8C	20	32	Num(13,2)		Right justified
<i>Do not enter a decimal point; element decimal values are read from columns 31 and 32.</i>						
Isotope Weight	8D	33	45	Num(13,2)		Right justified
<i>Do not enter a decimal point; isotope decimal values are read from columns 44 and 45.</i>						
Project Number ^[3]	8E	46	55	Char(10)		Left justified
Scrap Program ^[4]	8F	56	56	Char(1)		Leave blank
Weight Percent Isotope/Parts Per Million	8G	61	66	Num(6,4) ^[5]		Right justified
<i>Do not enter a decimal point; weight percent decimal values are read from columns 63 to 66.</i>						
Owner Code	8H	68	68	Char(1)		
Sequence Number Code ^[6]	8I	76	80	Num(5)		Right justified

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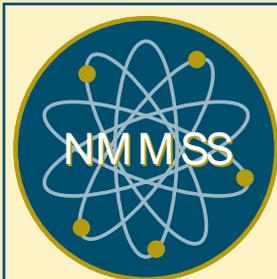
D-24 Electronic Reporting Inventory - Data Code 2

Physical Inventory Listing Detail Information (Data Code 2)

Selected IAEA facilities only.

<u>Field Description</u>	<u>742C</u>	<u>80 Column File</u>		<u>Type</u>	<u>Essential</u>	<u>Note</u>
		<u>Begin</u>	<u>End</u>			
Data Code	-	1	1	Num(1)	✓	Value is 2
Inventory Report Date ^[1]	4	2	9	Date	✓	MMDDYYYY
RIS	3	10	13	Char(4)	✓	Left justified
Material Type	8A	14	15	Char(2)	✓	Left justified
Composition-Facility Code ^[2]	8B	16	19	Char(4)	✓	Left justified
Batch Identification	8J	20	35	Char(16)		Left justified
Number of Items	8K	36	39	Num(4)		Right justified
Key Measurement Point	8L	40	41	Char(2)		Left justified
Measurement Basis	8M1	42	42	Char(1)		
Other Measurement Point	8M2	43	44	Char(2)		Left justified
Measurement Method	8M3	45	45	Char(1)		
Entry Status	8N	46	46	Char(1)		
Concise Note Indicator	2	47	47	Char(1)		X indicates notes
Sequence Number ^[3]	8I	76	80	Num(5)		Right justified

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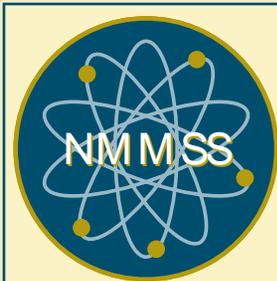


D-24 Electronic Reporting Inventory – Total Lines (899)

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Physical Inventory Listing Header Information for Reporting Total Lines- COEI 899 (Data Code 1)

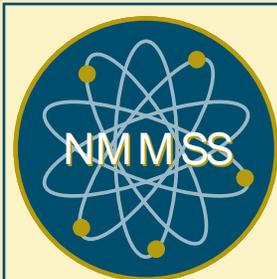
<u>Field Description</u>	<u>742C</u>	<u>80 Column File</u>		<u>Type</u>	<u>Essential</u>	<u>Note</u>
		<u>Format</u>	<u>Position</u>			
		<u>Begin</u>	<u>End</u>			
Data Code	-	1	1	Num(1)	✓	Value is 1
Inventory Report Date ^[1]	4	2	9	Date	✓	MMDDYYYY
RIS	3	10	13	Char(4)	✓	Left justified
Material Type ^[2]	8A	14	15	Char(2)	✓	Left justified
Composition-Facility Code ^[3]	8B	16	19	Char(4)	✓	Left justified Value is 899
Element Weight	9C	20	32	Num(13,2)	✓	Right justified
<i>Do not enter a decimal point; element decimal values are read from columns 31 and 32.</i>						
Isotope Weight	9D	33	45	Num(13,2)		Right justified
<i>Do not enter a decimal point; isotope decimal values are read from columns 44 and 45.</i>						
Sequence Number ^[4]	9I	76	80	Num(5)		Right justified



PIL in 80 Column Format

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103132006ABC E1860	7918639000	125504200	J	00001
103132006ABC E1861	26586707900	237614800	J	00002
103132006ABC E4864	18100	16300	J	00003
103132006ABC 20899	27378589900	363135300	J	00004



Example of Electronic Inventory File with Errors

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103312006ABC	33360	1626400	289200JAF4000000	G	00001
103312006ABC	33360	94500	18800JAF4000000	G	00002
103312006ABC	33360	31900	6400JAF4000000	G	00003
103312006ABC	33360	18900	3800JAF4000000	G	00004
103312006ABC	34360	18100	3600JAF4000000	G	00005

For privately owned material "J" you must use E1-E4 for the material type code.

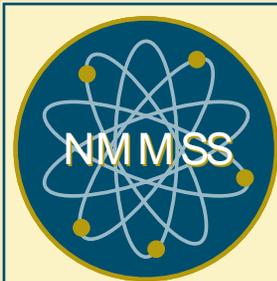
103312006ABC	38360	500	400	J	00006
103312006ABC	33291	18900	3800JAF4000000	G	00007
103312006ABC	33291	18800	3700JAF4000000	G	00008

For government owned material you must use Owner Code "G". If the material is "Loaned Leased" material from the government you should use Project Number QGD04LEASE.

103312006ABC	38860	200	200	A	00009
--------------	-------	-----	-----	---	-------

Asterisk quantities are no longer accepted in the NMMSS System. The default is zero.

103312006ABC	E4860	100	*	J	00010
103312006ABC	20899	1828300	329900		00011
103312006ABC	51363	100	*JAF4000000	G	00012
103312006ABC	57363	4500	4500JAF4000000	G	00013



Example of Electronic Inventory File with Errors, (cont.)

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Asterisk quantities are no longer accepted in the NMMSS System. The default is zero.

103312006ABC 50864	*	*	J	00014
--------------------	---	---	---	-------

The total line for Plutonium does not match the total of reported detail lines.

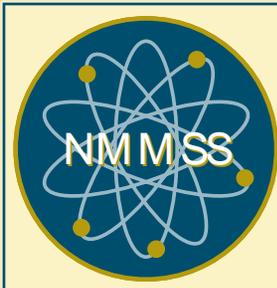
103312006ABC 50899	9500	9000		00015
--------------------	------	------	--	-------

The total line for Depleted Uranium, is missing the reported detail lines, should be using the generic material type code of 10, and should not have the project number or owner code entered for the total line. The owner code should be "G" or "J" when reporting the detail lines.

103312006ABC 11899	2	*JAF4000000	A	00016
--------------------	---	-------------	---	-------

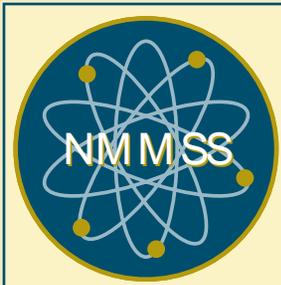
103312006ABC 81860	2494	*QGD04LEASE	G	00017
--------------------	------	-------------	---	-------

103312006ABC 81899	2494	*		00018
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Questions?

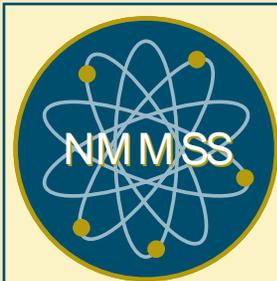


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INVENTORY EXERCISE

Complete a DOE/NRC Form 742C to reflect the scenario below.

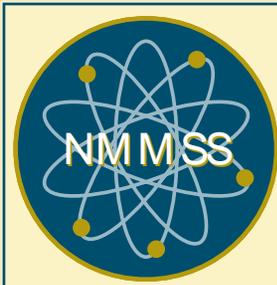
Coyote Energy is preparing their physical inventory reports for the annual period ending 7/31/2005. The facility has privately owned material only. Coyote Energy has fuel rods in the reactor that total 120678638 grams of element weight and 3021428 grams isotope weight, enriched at 3 percent. There is 0.8 percent enriched uranium in cooling with an element weight of 136045239 grams and an isotope weight of 1102837 grams. In addition, the facility has enriched uranium using a composition code of 864 in the amounts of 12 grams element weight and 12 grams isotope weight.



PIL Example

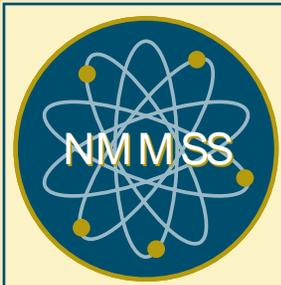
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DOE/NRC FORM 742C (8-2003) MANDATORY DATA COLLECTION AUTHORIZED BY 10 CFR 30, 40, 50, 70, 72, 74, 75, 150, Public Laws 83-703, 93-436, 95-91			U.S. DEPARTMENT OF ENERGY AND U.S. NUCLEAR REGULATORY COMMISSION PHYSICAL INVENTORY LISTING			APPROVED BY OMB: NO. 3150-0058 <small>Estimated burden per response to comply with this mandatory collection request: 6 hours. This information is required by NRC to fulfill its safeguards responsibilities, bilateral agreements, and responsibilities as a participant in the US/IAEA Safeguards Agreement. Send comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0058), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>			EXPIRES: 08/31/2006			
1. NAME AND ADDRESS Coyote Energy			2. DOE/NRC FORM 740M ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO			3. REPORTING IDENTIFICATION SYMBOL (RIS) RIS						
STREET ADDRESS			CITY			STATE	ZIP CODE		4. INVENTORY DATE 07/31/2005	5. PROCESS CODE N/A	6. CORRECTION I.D. N/A	7. LICENSE NUMBER(S) N/A



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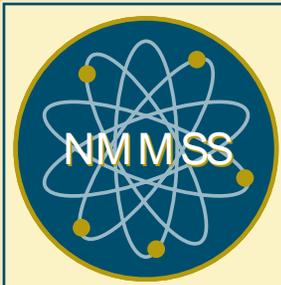
The Material Balance System



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Training Objectives for the Material Balance System

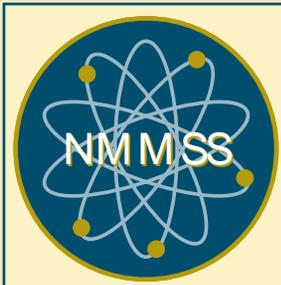
- Define Material Balance Report (MBR).
- Identify the source document for material balance data.
- Describe the relationship of the transaction information to the material balance report.



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Training Objectives for the Material Balance System (cont.)

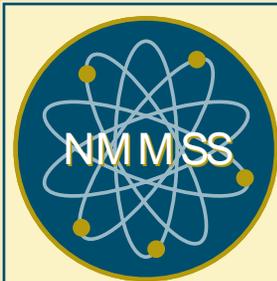
- Name the material types reported on a material balance report.
- Identify how the NMMSS uses reported material balance report.
- Name how a facility usually becomes aware of reconciliation difficulties.
- Role of the section B data on the material balance report.



Instructions for MBR Reporting

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- NUREG/BR-0007 Revision 5 (latest)
- Electronic Format: *Refer to the D-24 Directory, Personal Computer Data Input for NRC Licensees*



How is the MBR like a Bank Statement?



Beginning Balance



Plus Deposits



Less Withdrawals

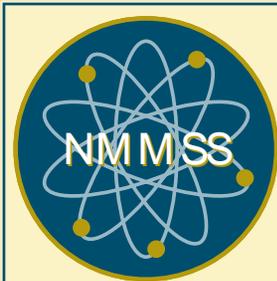


Equals

Ending Balance



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Material Types

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Special Nuclear Material (SNM)

20 – Enriched Uranium

50 – Plutonium

70 – U-233

83 – Pu-238

Reportable Qty

Gram

Gram

Gram

Grams/tenth

Source Material (Foreign Obligated)

10 – Depleted Uranium

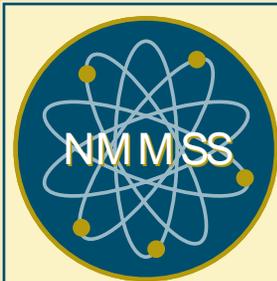
81 – Normal Uranium

88 – Thorium

Kilogram

Kilogram

Kilogram

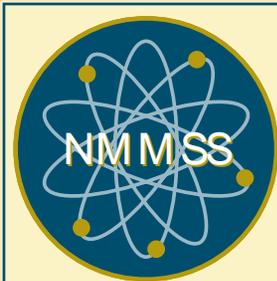


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MBR Header Information

DOE/NRC FORM 742 U.S. DEPARTMENT OF ENERGY (8-2003) 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. NUCLEAR REGULATORY COMMISSION MATERIAL BALANCE REPORT		APPROVED BY OMB: NO. 3150-0004	EXPIRES: 08/31/2006
1. NAME AND ADDRESS		2. LICENSE NUMBER(S)		3. REPORTING IDENTIFICATION SYMBOL (RIS)	
6a. PROCESS CODE		6b. CORRECTION IDENTIFICATION		4. REPORT PERIOD (MM/DD/YYYY) FROM TO	5. MATERIAL TYPE (Submit separate report for each type)

Estimated burden per response to comply with this mandatory collection request: 5 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0004), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.



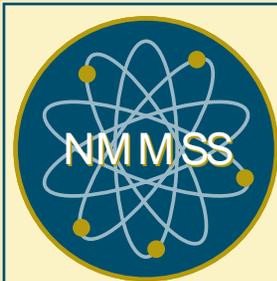
MBR Section A Information

NMMSS Users Annual Training Meeting
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SECTION A		MATERIAL ACCOUNTABILITY	
7. DOE/NRC 740M ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
8. BEGINNING INVENTORY -- U.S. GOVT-OWNED			
9. BEGINNING INVENTORY -- NOT U.S. GOVT-OWNED			
RECEIPTS			
11. PROCUREMENT FROM DOE			
RIS			
FROM:			

13. PROCUREMENT -- FOR THE ACCOUNT OF DOE			
14. DOD RETURNS -- USE A		Leave Blank	
15. DOD RETURNS -- USE B		Leave Blank	
16. DOD RETURNS -- OTHER USES		Leave Blank	
21. PRODUCTION			
22. FROM OTHER MATERIALS			
a. ICT			
b. ICT			
c. ICT			
30. RECEIPTS REPORTED TO DOE/NRC ON DOE/NRC 741 <i>(not listed elsewhere)</i>			
FROM:			
RIS			

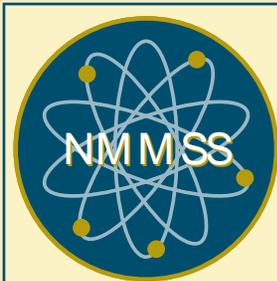
34. RECEIPTS -- MISC			
37. PROCUREMENT BY OTHERS		Leave Blank	
38. DONATED MATERIAL -- FROM U.S. GOVT TO OTHERS			
39. DONATED MATERIAL -- FROM OTHERS TO U.S. GOVT			
40. TOTAL (Lines 8-39)			



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MBR Section A Information - Cont'd

SECTION A (Continued)	MATERIAL ACCOUNTABILITY	
	A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
54. SHIPMENTS -- MISC		
58. DONATED MATERIAL -- TO U.S. GOVT BY OTHERS		
59. DONATED MATERIAL -- TO OTHERS BY U.S. GOVT		
65. ROUNDING BIAS		
71. DEGRADATION TO OTHER MATERIALS a. ICT		
b. ICT		
72. DECAY		
73. FISSION AND TRANSMUTATION		
74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS		
75. ACCIDENTAL LOSSES		
76. APPROVED WRITE-OFFS	Leave Blank	
77. INVENTORY DIFFERENCE		
80. ENDING INVENTORY -- U.S. GOVT OWNED		
81. ENDING INVENTORY -- NOT U.S. GOVT OWNED		
82. TOTAL (lines 41-81)		
83. BIAS ADJUSTMENT		



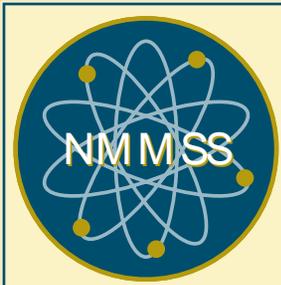
MBR Section B and C Information

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SECTION B		FOREIGN OBLIGATIONS	
1. COUNTRY OF OBLIGATION	2. ELEMENT WEIGHT	3. ISOTOPE WEIGHT	
4. TOTAL WEIGHT			

SECTION C		CERTIFICATION	
To the best of my knowledge and belief, the information given above and in any attached schedules is true, complete, and correct.			
SIGNATURE <i>(See instructions for provisions on confidentiality)</i>	TITLE	DATE	

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.



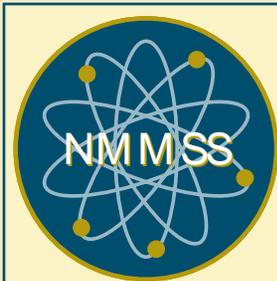
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Material Balance Report: Section B

- NMMSS has never had the capability to collect Section B data from the Material Balance Report (Form 742)
- Previously, Section B contained Country Control Number (CCN) balances.
- NMMSS now captures Section B of the DOE/NRC Form 742

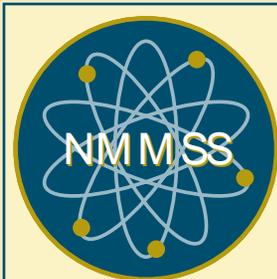
Electronic Reporting MBR Categories

Ref: D-24 Directory



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Material Balance Category	Description
85	Australia (31)
86	Canada (32)
87	Euratom (33)
88	Japan (34)
89	People's Republic of China (35)
90	Czech Republic (36)
91	Australia and Euratom (91)
92	Canada and Euratom (92)
93	Former Soviet Union Weapons (WR)
94	Australia and Japan (81)
95	Canada and Japan (82)
96	Euratom and Japan (83)
97	Australia, Euratom, and Japan (84)
98	Canada, Euratom, and Japan (85)
99	China/Japan (86)
A1	Switzerland

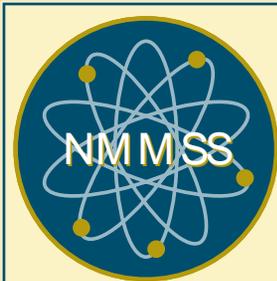


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Material Balance Report Detail Information (Data Code 3 & 4)

D-24: Relationship of M-742 to 80 Column Electronic File

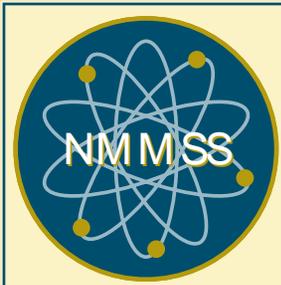
<u>Field Description</u>	<u>742</u>	<u>80 Column File</u>		<u>Type</u>	<u>Essential</u>	<u>Note</u>
		<u>Begin</u>	<u>End</u>			
Data Code	-	1	1	Num(1)	✓	Value is 3 (Receipts) or 4 (Removals)
RIS	3	2	5	Char(4)	✓	Left justified
Material Type	5	6	7	Char(2)	✓	Left justified
Report Period From	4	8	15	Date	✓	MMDDYYYY
Report Period To	4	16	23	Date	✓	MMDDYYYY
Element Weight	column A	24	36	Num(13,2)		Right justified
<i>Do not enter a decimal point; element decimal values are read from columns 35 and 36.</i>						
Isotope Weight	column B	37	49	Num(13,2)		Right justified
<i>Do not enter a decimal point; isotope decimal values are read from columns 48 and 49.</i>						
Material Balance Category*	Row #	50	51	Char(2)		
Other RIS	line 11,30,42,43, & 51	52	55	Char(4)		Left justified
Inventory Change Type (ICT)	line 22 & 71	56	57	Char(2)		Left justified
Entry Status		58	58	Char(1)		
Concise Note Indicator	7	59	59	Char(1)		X indicates notes



MBR in 80 Column Format

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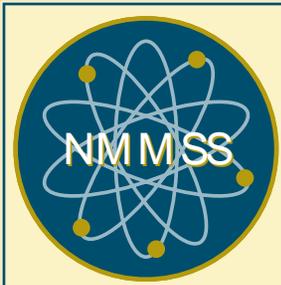
3ABC E10314200503132006	34911701400	43016680009	N
3ABC E10314200503132006	957820900	3474350030YLM	N
4ABC E10314200503132006	284023100	164110071	N
4ABC E10314200503132006	122331400	6540670073	N
4ABC E10314200503132006	35463167800	39786250081	N
4ABC E10314200503132006	3058819300	2729920085	N
4ABC E10314200503132006	6740294000	7108950086	N
4ABC E10314200503132006	848794900	802730092	N
4ABC E10314200503132006	957820900	3474350093	N



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Reconciliation (comparison)

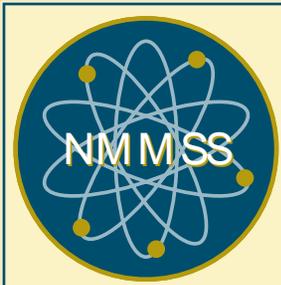
- NMMSS is required to reconcile with NRC licensee facilities who report MBR data.
- Reported MBR is compared to NMMSS generated MBR.
- NMMSS uses various reports in the reconciliation process.



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Reconciliation – cont.

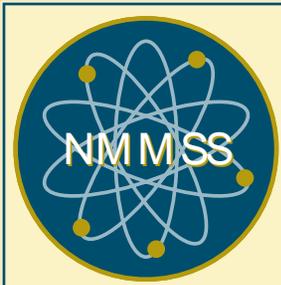
- Physical Inventory Listing (PIL) is compared to the reported MBR data.
- Facilities are contacted by NMMSS analyst if discrepancies are identified in the reconciliation process.



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DOE/NRC Form 742 Section “B”

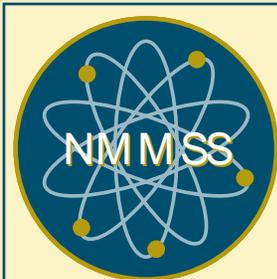
- Section “B” data is captured into the NMMSS system
- Section “B” data is reconciled with NMMSS generated IA-OBL-05
- Section “B” data for Material Types 10 and 50 you only report the Element weight.



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Reconciliation Reports

- M-742 Describes the facility's inventory changes for a specified period of time as reported to NMMSS.
- M-742R Reflects the facility's MBR data that is captured by NMMSS.
- IA-OBL-05 Transaction detail for shipments, receipts, and onsite gains and losses for Foreign Obligated Material.
- TJ-45 Transaction detail for shipments, receipts, and onsite gains and losses.
- TJ-11B Detailed open transactions by material type and facility.
- TJ-11D Detailed open adjustments by facility.



NMMSS Analyst reconciliation check list

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For NMMSS Analyst use only

Reconciliation Report Checklist

Facility RIS: _____ Facility Name: _____

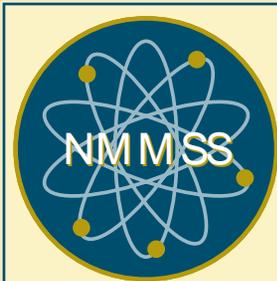
Period Submitted: _____ Date Received: _____

Method of submittal:

Disk/CD Email Uncl DL CDL Simex Paper

MBR Checklist

- Facility MBR Imported and Error Free.
- NMMSS M-742 Generated and Compared.
- NMMSS M-742R Generated and Compared.
- NMMSS IA-OBL-05 Generated and Compared (742B). Obligations? YES NO
- NMMSS TJ-11B Generated and Review. Open transactions within period? YES NO
- NMMSS TJ-11D Generated and Review. Open adjustments within period? YES NO



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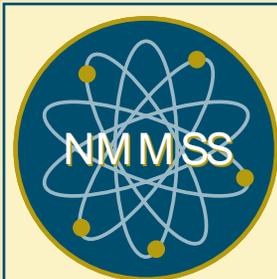
NMMSS Analyst reconciliation check List

PIL Checklist

- Facility PIL Imported and Error Free. (print the I-10E)
- Compare NMMSS M-742 and Facility MBR to Facility PIL.
- Verify no duplicates in RAW, Error Free (check Capture date for RAW and Error Free data), and Historical.
- Change the Inventory Date under Maintenance menu to match the facility date.

Additional Checks

- Produce an A-200 to reconcile by project number.
- All Government owned material reconciled or DOE SO 20.3 has been notified of material not reported by facility.
- Notified NRC of Non-Government owned material that is not SNM or Foreign Obligated on the NMMSS system.
- Facility PIL and MBR moved to Historical. Changed Inventory Date back to current period.



Reconciliation Work Sheet

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UNCLASSIFIED

PRIVATELY-OWNED SPECIAL NUCLEAR MATERIAL RECONCILIATION SHEET

RIS: ABC

MATERIAL TYPE 20

	ELEMENT WT.	ISOTOPE WT.
NMMSS M-742:	619067584.00	7882271.00
FACILITY 742A:	569700897.00	5844691.00
EFG - ABC	49366687.00	2037580.00
TRANS. #'s →	49366687.00	2037580.00
167,168,169,170,171, 172,173,174,175, & 176 ACT. DATES: 8/1(2), 8/2(3), 8/15(3), 8/16, & 8/17/2005	0.00	0.00

MATERIAL TYPE 50

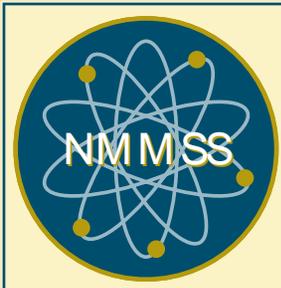
	ELEMENT WT.	ISOTOPE WT.
NMMSS M-742:	6374557.00	4149471.00
FACILITY 742A:	6374557.00	4149471.00
	0.00	0.00
	0.00	0.00

MATERIAL TYPE 70

	ELEMENT WT.	ISOTOPE WT.
NMMSS M-742:	0.00	0.00
FACILITY 742A:	0.00	0.00
	0.00	0.00
	0.00	0.00

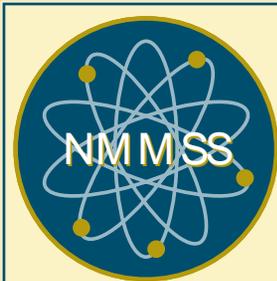
MATERIAL TYPE 83

	ELEMENT WT.	ISOTOPE WT.
NMMSS M-742:	0.00	0.00
FACILITY 742A:	0.00	0.00
	0.00	0.00
	0.00	0.00



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Material Balance Exercise



MATERIAL BALANCE EXERCISE

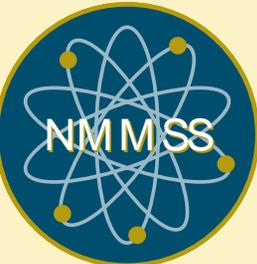
Complete a DOE/NRC Form 742 to reflect the scenario below.

Coyote Energy is preparing their Material Balance reports for the annual reporting period for 7/31/2005 and their last report was for 7/31/2004, all of the facility's material is privately owned.

“Ending Inventory Balance” from the previous reporting period for enriched uranium is 231150702 grams element weight and 2617419 grams isotope weight. During the current period Coyote Energy had a receipt of 46580017 element weight and 1899444 grams isotope weight from Acme Nuclear Fuel (RIS EFG).

A shipment was made during the period to Roadrunner, Inc. (RIS DEF) for 19112189 grams element weight and 148797 grams isotope weight; also occurring is “degradation to other materials” in the amounts of 1441692 grams element weight and 3152 grams isotope weight.

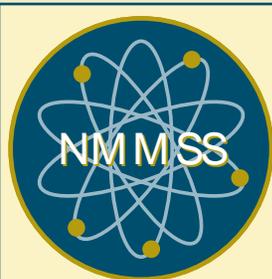
“Fission and transmutation” occurred in the amounts of 452948 grams element weight and 240637 grams isotope weight. To adjust for rounding an “Inventory difference” of 1gram element weight will be reported on their 741 transaction. Coyote Energy has foreign obligation code 31 with 24943714 grams element weight and 521517 grams isotope weight, and foreign obligation code 32 with 19452697 grams element weight and 362524 grams isotope weight.



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MBR Example

DOE/NRC FORM 742 <small>(8-2003)</small> 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 MATERIAL BALANCE REPORT		APPROVED BY OMB: NO. 3150-0004 <small>Estimated burden per response to comply with this mandatory collection request: 5 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0004), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.</small>	
1. NAME AND ADDRESS Coyote Energy		2. LICENSE NUMBER(S) <i>Optional</i>		3. REPORTING IDENTIFICATION SYMBOL (RIS) RIS	
6a. PROCESS CODE N/A		6b. CORRECTION IDENTIFICATION N/A		4. REPORT PERIOD (MM/DD/YYYY) FROM 08/01/2004 TO 07/31/2005	
				5. MATERIAL TYPE <small>(Submit separate report for each type)</small> 20	
SECTION A MATERIAL ACCOUNTABILITY					
7. DOE/NRC 740M ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO				A. ELEMENT WEIGHT	
8. BEGINNING INVENTORY -- U.S. GOVT-OWNED					
9. BEGINNING INVENTORY -- NOT U.S. GOVT-OWNED				231150702	
RECEIPTS					
11. PROCUREMENT FROM DOE					
RIS					
FROM:					
13. PROCUREMENT -- FOR THE ACCOUNT OF DOE					
14. DOD RETURNS -- USE A					
15. DOD RETURNS -- USE B					
16. DOD RETURNS -- OTHER USES					
21. PRODUCTION					
22. FROM OTHER MATERIALS					
a. ICT					
b. ICT					
c. ICT					
30. RECEIPTS REPORTED TO DOE/NRC ON DOE/NRC 741 <small>(not listed elsewhere)</small>					
FROM: Acme Nuclear Fuel, Inc. RIS EFG				46580017	
34. RECEIPTS -- MISC					
37. PROCUREMENT BY OTHERS					
38. DONATED MATERIAL -- FROM U.S. GOVT TO OTHERS					
39. DONATED MATERIAL -- FROM OTHERS TO U.S. GOVT					
40. TOTAL <small>(Lines 8-39)</small>				277730719	
REMOVALS					
41. EXPENDED IN SPACE PROGRAMS					
42. SALES TO U.S. GOVT RIS TO:					
RIS					
TO:					
43. SALES TO OTHERS FOR THE ACCOUNT OF U.S. GOVT RIS					
TO:					
44. DOD -- USE A					
45. DOD -- USE B					
46. DOD -- OTHER USES					
47. EXPENDED IN U.S. GOVT TESTS					
48. ROUTINE TESTS					
49. SHIPPER -- RECEIVER DIFFERENCE					
51. SHIPMENTS REPORTED TO NRC/DOE ON NRC/DOE 741 <small>(not listed elsewhere)</small>					
TO: Roadrunner, Inc. RIS DEF				19112189	
				148797	



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MBR Example

SECTION A (Continued)		MATERIAL ACCOUNTABILITY	
		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
54. SHIPMENTS -- MISC			
58. DONATED MATERIAL -- TO U.S. GOVT BY OTHERS			
59. DONATED MATERIAL -- TO OTHERS BY U.S. GOVT			
65. ROUNDING BIAS			
71. DEGRADATION TO OTHER MATERIALS	a. ICT	1441692	3152
	b. ICT		
72. DECAY			
73. FISSION AND TRANSMUTATION		452948	240637
74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS			
75. ACCIDENTAL LOSSES			
76. APPROVED WRITE-OFFS			
77. INVENTORY DIFFERENCE		1	
80. ENDING INVENTORY -- U.S. GOVT OWNED			
81. ENDING INVENTORY -- NOT U.S. GOVT OWNED		256723889	4124277
82. TOTAL (lines 41-81)		277730719	4516863
83. BIAS ADJUSTMENT			

SECTION B		FOREIGN OBLIGATIONS	
1. COUNTRY OF OBLIGATION	2. ELEMENT WEIGHT	3. ISOTOPE WEIGHT	
31	24943714	521517	
32	19452697	362524	
4. TOTAL WEIGHT			

SECTION C CERTIFICATION		
To the best of my knowledge and belief, the information given above and in any attached schedules is true, complete, and correct.		
SIGNATURE (See instructions for provisions on confidentiality)	TITLE	DATE

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.