(04-2018) 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

EXPIRES: 04/30/2021

Estimated burden per response to comply with this mandatory collection request: 2 hours for small licensees and 5 hours for large licensees. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@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.

1. NAME AND ADDRESS	2. LICENSE NUMBER(S)	3. REPORTING IDENTIFICATION SYMBOL (RIS)
FERMI NATIONAL ACCELERATOR LABORATORY		
P.O. BOX 500	PRIME DOE CONTRACTOR	CWA
BATAVIA, IL 60510	4. REPORT PERIOD (MM/DD/YYYY)	5. MATERIAL TYPE
USA	FROM TO	(Submit separate report for each type)
ATTN: KATHY J. GRADEN, MAIL STOP 371		AMERICIUM-241: MT 44

SECTION	Α	MATERIAL ACCOUNTABILITY		
PC SEQ	1		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
AND THE RESERVE OF THE PROPERTY OF THE PROPERT	8.	BEGINNING INVENTORY U.S. GOVT-OWNED	11	11
make the first of the transfer of the second	9.	BEGINNING INVENTORY NOT U.S. GOVT-OWNED		
MARKET TO SEE THE STATE OF THE SECOND SECTION	- Armon on one	RECEIPTS		And the Control of th
i	11.	PROCUREMENT FROM DOE RIS		
		FROM:		
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	4		*	
		PROCUREMENT FOR THE ACCOUNT OF DOE		
		DOD RETURNS USE A	· · · · · · · · · · · · · · · · · · ·	The state of the s
		DOD RETURNS USE B		
		DOD RETURNS OTHER USES		
1		PRODUCTION	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE	
	22.	FROM OTHER MATERIALS a. ICT	:	
1	-	b. ICT	San deliberation of the state o	
	20	c. ICT RECEIPTS REPORTED TO DOE/NRC ON DOE/NRC 741 (not listed elsewhere)		
	3U.	FROM: RIS		
	1	FROM. INIO		1
<u> </u>				
	+			
	+			
	34.	RECEIPTS MISC		
		PROCUREMENT BY OTHERS		
	38.	DONATED MATERIAL FROM U.S. GOVT TO OTHERS		
	39.	DONATED MATERIAL FROM OTHERS TO U.S. GOVT	ALL STATES OF THE STATES OF TH	
	40.	TOTAL (Lines 8-39)	11	11
		REMOVALS	Mark Angles and Angles	
	41.	EXPENDED IN SPACE PROGRAMS		
	42.	SALES TO U.S. GOVT RIS TO: RIS		anni anni se
		TO:		
	<u> </u>			-
	43.	SALES TO OTHERS FOR THE ACCOUNT OF U.S. GOVT RIS		
	<u> </u>	TO:		
			2/2/2/2 PAGE 1/2/2 PAG	
		DOD USE A		
MARKET 1746 - 1846 - MILLION CONTROL OF THE SECOND CONTROL OF THE		DOD USE B		man a construction of the control of
ļ — —		DOD OTHER USES		
ļ	·	EXPENDED IN U.S. GOVT TESTS ROUTINE TESTS	The state of the s	
		SHIPPER RECEIVER DIFFERENCE		
		SHIPPER RECEIVER DIFFERENCE SHIPMENTS REPORTED TO NRC/DOE ON NRC/DOE 741 (not listed elsewhere)	**************************************	
	51.	TO: RIS	and and an artist of the second of the secon	
ļ	<u></u>	10.	Market State - 1717 at 1 and the last state of t	
<u> </u>	<del></del>			

(04-2018) 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 (Continued)

SEC	TION	A (	Continued)	MATERIAL ACCOUNTABIL	.ITY	
PC	SEQ				A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
		54.	SHIPMENTS MISC			
l		58.	DONATED MATERIAL T	O U.S. GOVT BY OTHERS		
		59.	DONATED MATERIAL T	O OTHERS BY U.S. GOVT		
		65.	ROUNDING ADJUSTMEN	Т	1	
		71.	DEGRADATION TO OTHER N	MATERIALS a. ICT		
				b. ICT		
		72.	DECAY		0.0044	0.0044
		73.	FISSION AND TRANSMU	TATION		
		74.	NORMAL OPERATIONAL	LOSSES/MEASURED DISCARDS		
		75.	ACCIDENTAL LOSSES			
		76.	APPROVED WRITE-OFFS			
		77.	INVENTORY DIFFERENC	E	A STATE OF THE STA	The second secon
		80.	ENDING INVENTORY U	.S. GOVT OWNED	11	11
		81.	ENDING INVENTORY N	OT U.S. GOVT OWNED		
Access to the control of the sea		82.	TOTAL (Lines 41-81)		11	11
		83.	BIAS ADJUSTMENT		The state of the s	and the small file of the second block of the second secon
SEC	TION	В		FOREIGN OBLIGATIONS	S	
PC	SEQ		1. COUNTR	Y OF OBLIGATION	2. ELEMENT WEIGHT	3. ISOTOPE WEIGHT
					A SAME AND ADDRESS OF THE PROPERTY OF THE PROP	
			4. TO	TAL WEIGHT		
SEC	TION			CERTIFICATION		akan ang manganan manganan na manganan P
To the	e best o	of m	y knowledge and belief, the	information given above and in any a	ttached schedules is true,	complete, and correct.
SIGNATI	URE (See	instru	ctions for provisions on confidentially)	TITLE		DATE 12/9/2019
.**	Katter	Aix	Graden	FERMILAB NUCLEAR MATERIAL	LS REPRESENTATIVE	12/9/2019

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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MANDATORY DATA
COLLECTION
AUTHORIZED BY
10 CFR 30, 40, 50, 70, 72,
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# MATERIAL BALANCE REPORT

APPROVED BY OMB: NO. 3150-0004

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1. NAME AND ADDRESS	E AND ADDRESS 2. LICENSE NUMBER(S)			
FERMI NATIONAL ACCELERATOR LABORATORY		SYMBOL (RIS)		
P.O. BOX 500	PRIME DOE CONTRACTOR	CWA		
BATAVIA, IL 60510	4. REPORT PERIOD (MM/DD/YYYY)	5. MATERIAL TYPE		
USA	FROM TO	(Submit separate report for each type)		
ATTN: KATHY J. GRADEN, MAIL STOP 371	10/01/2019 12/31/2019	Depleted Uranium: MT 10		

SECTIO	ON A MATERIAL	ACCOUNTABILITY	
PC SE	EQ	A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
	8. BEGINNING INVENTORY U.S. GOVT-OW	NED 261,300	523
	<ol><li>BEGINNING INVENTORY NOT U.S. GOV</li></ol>	Γ-OWNED	
	RECEIPTS		
	11. PROCUREMENT FROM DOE RIS		manufaction to the second of t
	FROM:		The second secon
	13. PROCUREMENT FOR THE ACCOUNT OF	- DOF	1
	14. DOD RETURNS USE A	DOL	
	15. DOD RETURNS USE B		
<del>-</del>	16. DOD RETURNS OTHER USES		· · · · · · · · · · · · · · · · · · ·
	21. PRODUCTION		
77	22. FROM OTHER MATERIALS a. ICT		
	b. ICT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	c. ICT		
	30. RECEIPTS REPORTED TO DOE/NRC ON DOE/NRC 741	(not listed elsewhere)	ACTION COMMITTEE CONTROL CONTR
	FROM: RIS		
	34. RECEIPTS MISC		- 200 (1997)   1997)   1   1997   2   1997
	37. PROCUREMENT BY OTHERS		
	38. DONATED MATERIAL FROM U.S. GOVT	TO OTHERS	
	39. DONATED MATERIAL FROM OTHERS TO		
<u>i</u>	40. TOTAL (Lines 8-39)	261,300	523
	REMOVALS	201,300	
	41. EXPENDED IN SPACE PROGRAMS		1
	42. SALES TO U.S. GOVT RIS TO:	RIS	
	TO:	1	
	43. SALES TO OTHERS FOR THE ACCOUNT OF U.S. GOVT	RIS	Control of the contro
	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		THE RESERVE OF THE PROPERTY OF
	51. SHIPMENTS REPORTED TO NRC/DOE ON NRC/DOE 74	1 (not listed elsewhere)	

(04-2018) 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 (Continued)

SEC	TION	(Continued) MATERIAL ACCOUNTABL	LITY	
PC	SEQ		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
	i i	54. SHIPMENTS MISC		
		58. DONATED MATERIAL TO U.S. GOVT BY OTHERS		
		59. DONATED MATERIAL TO OTHERS BY U.S. GOVT	and the shadow of hard hear a site of the handsteen strengthere. When the strength of the stre	
		65. ROUNDING ADJUSTMENT		
		71. DEGRADATION TO OTHER MATERIALS a. ICT		
		b. ICT		
		72. DECAY		
		73. FISSION AND TRANSMUTATION		1
		74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS		Annual and annual a
,		75. ACCIDENTAL LOSSES		
		76. APPROVED WRITE-OFFS		
		77 INVENTORY DIFFERENCE		· ·
		77. INVENTORY DIFFERENCE	261,300	
		80. ENDING INVENTORY U.S. GOVT OWNED	261,300	523
		81. ENDING INVENTORY NOT U.S. GOVT OWNED	261,300	523
		82. TOTAL (Lines 41-81) 83. BIAS ADJUSTMENT	201,300	323
SEC	TION I		I <b>C</b>	İ
	SEQ			2 ICOTODE WEIGHT
PC	SEQ	COUNTRY OF OBLIGATION	Z. ELEWIENT WEIGHT	3. ISOTOPE WEIGHT
				Management and an explored to a control of the cont
				<del> </del>
		4. TOTAL WEIGHT		
		4. TOTAL WEIGHT		
SEC	TION	CERTIFICATION		
To the	e best o	f my knowledge and belief, the information given above and in any	attached schedules is true,	complete, and correct.
SIGNAT	URE (See	nstructions for provisions on confidentially) TITLE		DATE 12/9/2019
*	Katty	J. Graden FERMILAB NUCLEAR MATERIA	LS REPRESENTATIVE	12/1/2019

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NAME AND ADDRESS     FERMI NATIONAL ACCELERATOR LABORATORY	2. LICENSE NUMBER(S)	REPORTING IDENTIFICATION SYMBOL (RIS)
P.O. BOX 500	PRIME DOE CONTRACTOR	CWA
ATAVIA, IL 60510  4. REPORT PERIOD (MM/DD/YYYY)		5. MATERIAL TYPE
USA	FROM TO	(Submit separate report for each type)
ATTN: KATHY J. GRADEN, MAIL STOP 371	10/01/2019 12/31/2019	DEUTERIUM: MT 86

SEC	SECTION A MATERIAL ACCOUNTABILIT			.ITY		
PC	SEQ				A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
		8.	BEGINNING INVENTORY U.	S. GOVT-OWNED		78.8
		9.	BEGINNING INVENTORY N			
			RECEIPTS			
		11.	PROCUREMENT FROM DOE	RIS		
			FROM:			
		<u>.</u>				
		40	DDOOLDENENT FOR THE	ACCOUNT OF DOE		
			PROCUREMENT FOR THE	ACCOUNT OF DOE		
		4	DOD RETURNS USE A DOD RETURNS USE B			
			DOD RETURNS OTHER US	TO TO		
		<u> </u>	PRODUCTION		The state of the s	
		ina	FROM OTHER MATERIALS	a. ICT		
		~~.	THOM OTTEN MATERIALS	b. ICT		When the second
				c. ICT		
		30	RECEIPTS REPORTED TO DOE/NRC O			1
			FROM:	RIS		
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		34.	RECEIPTS MISC			
			PROCUREMENT BY OTHERS			
j			DONATED MATERIAL FROM			
			DONATED MATERIAL FROM	THE CONTRACT AND RECOGNISH METHOD AS A CONTRACT OF THE CONTRAC		
			TOTAL (Lines 8-39)		The state of the s	78.8
				OVALS		CONTROL - CONTROL A CONTROL CO
		41.	EXPENDED IN SPACE PROGE	RAMS	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	
		42.	SALES TO U.S. GOVT RIS TO	RIS		
			TO:			
		43. 3	SALES TO OTHERS FOR THE ACCOUN	T OF U.S. GOVT RIS	Phys A 195 at This art and The State St	
			TO:			
			DOD USE A		The state and continue to the continue and the continue a	
			DOD USE B			
			DOD OTHER USES			
			EXPENDED IN U.S. GOVT TES	STS		
			ROUTINE TESTS			
			SHIPPER RECEIVER DIFFE			
		51. 5	SHIPMENTS REPORTED TO NRC/DOE		- A Company of	and the second s
<u>L</u>			TO:	RIS	1	where the contract of the cont

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

# MATERIAL BALANCE REPORT (Continued)

SEC	SECTION A (Continued) MATERIAL ACCOUNTABILITY					
PC	SEQ		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT		
		54. SHIPMENTS MISC	The second secon			
		58. DONATED MATERIAL TO U.S. GOVT BY OTHERS		THE STATE OF THE S		
	1	59. DONATED MATERIAL TO OTHERS BY U.S. GOVT		THE RESERVE AND ADDRESS OF THE TRANSPORT		
		65. ROUNDING ADJUSTMENT		1		
		71. DEGRADATION TO OTHER MATERIALS a. ICT				
		b. ICT				
		72. DECAY				
		73. FISSION AND TRANSMUTATION				
		74. NORMAL OPERATIONAL LOSSES/MEASURED DISCARDS				
		75. ACCIDENTAL LOSSES		AND AND AS A SECOND CONTRACT OF THE SECOND CO		
		76. APPROVED WRITE-OFFS		And and and their sections of the section of the se		
		77. INVENTORY DIFFERENCE		International Control of the Control		
		80. ENDING INVENTORY U.S. GOVT OWNED		78.8		
		81. ENDING INVENTORY NOT U.S. GOVT OWNED	1 To	:		
		82. TOTAL (Lines 41-81)		78.8		
		83. BIAS ADJUSTMENT				
SEC	TION	FOREIGN OBLIGATIONS				
PC	SEQ	1. COUNTRY OF OBLIGATION	2. ELEMENT WEIGHT	3. ISOTOPE WEIGHT		
			AND	Maritima material management of account of the control of the cont		
				The second contract of		
				<u>.</u>		
		4. TOTAL WEIGHT				
SEC	TION	CERTIFICATION				
To the	e best o	f my knowledge and belief, the information given above and in any att	ached schedules is true,	complete, and correct.		
		nstructions for provisions on confidentially) TITLE		DATE 12/0/2010		
,	Katty	g. Graden FERMILAB NUCLEAR MATERIALS	S REPRESENTATIVE	12/9/2019		

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