DOE/NRC FORM 742
(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 Batavia, IL 60510 ATTN: Kathy J. Graden, Mail Stop 371	DOE Prime Contractor	CWA

4. REPORT PERIOD (MM/DD/YYYY) FROM	TO	5. MATERIAL TYPE (Submit separate report for each type)
10/1/2021	9/30/2022	Deuterium: MT 86

SECTION A MATERIAL ACCOUNTABILITY

PC	SEQ		A. ELEMENT WEIGHT	B. ISOTOPE WEIGHT
		8. BEGINNING INVENTORY -- U.S. GOVT-OWNED		78.8
		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		
		37. PROCUREMENT BY OTHERS		
		38. DONATED MATERIAL -- FROM U.S. GOVT TO OTHERS		
		39. DONATED MATERIAL -- FROM OTHERS TO U.S. GOVT		
		40. TOTAL (Lines 8-39)		78.8
		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 *(not listed elsewhere)*		
		TO: RIS		

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MATERIAL BALANCE REPORT (Continued)

SECTION A (Continued) MATERIAL ACCOUNTABILITY

PC	SEQ		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 ADJUSTMENT		
		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		
		77. INVENTORY DIFFERENCE		
		80. ENDING INVENTORY -- U.S. GOVT OWNED		78.8
		81. ENDING INVENTORY -- NOT U.S. GOVT OWNED		
		82. TOTAL (Lines 41-81)		78.8
		83. BIAS ADJUSTMENT		

SECTION B FOREIGN OBLIGATIONS

PC	SEQ	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 (See instructions for provisions on confidentially)	TITLE	DATE
Kathy J. Graden	Fermilab Nuclear Materials Representative	9/14/2022

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.